State Route 46 East/Union Road Intersection Improvements

On State Route 46 East/Union Road in Paso Robles in San Luis Obispo County

05-SLO-46-PM 30.7-32.4

EA 05-1C150 and Project Number 0512000070

Initial Study
with Proposed Mitigated Negative Declaration/ Environmental Assessment

Prepared by the

State of California Department of Transportation

and City of Paso Robles

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S. Code 327 and the Memorandum of Understanding dated May 27, 2022, and executed by the Federal Highway Administration and Caltrans.

July 2023

General Information About This Document

What's in this document:
The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration, has prepared this Initial Study/Environmental Assessment, which examines the potential environmental impacts of alternatives being considered for the proposed project in San Luis Obispo County in California. The document explains why the project is being proposed, the alternatives being considered for the project, the existing environment that could be affected by the project, potential impacts of each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read the document. Public meeting details and additional copies of the document can be downloaded at the following website: https://dot.ca.gov/caltrans-near-me/district-5. If you would like a printed or compact disk version of this document, please contact Matt Fowler at 805-779-0793 or by email at matt.c.fowler@dot.ca.gov.
- Attend the public meeting on Thursday, August 17, 2023, from 6:00 p.m. to 8:00 p.m. to discuss the project and submit comments. Interested persons are welcome to attend at the Paso Robles City Hall at 1000 Spring Street, 2nd floor, Paso Robles, California 93446.
- Tell us what you think. If you have any comments regarding the proposed project, please attend the public meeting and/or send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to: Matt Fowler, Environmental Branch Chief, District 5 Environmental Division, California Department of Transportation, 50 Higuera Street, San Luis Obispo, California 93401. Submit comments via email to: matt.c.fowler@dot.ca.gov.
- Submit comments by the deadline: September 1, 2023.

What happens next:
After comments are received from the public and reviewing agencies, Caltrans, as assigned by the Federal Highway Administration, may 1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

Printing this document: To save paper, this document has been set up for two-sided printing (to print the front and back of a page). Blank pages occur where needed throughout the document to maintain proper layout of the chapters and appendices.

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: Matt Fowler, Environmental Branch Chief, District 5 Environmental Division, 50 Higuera Street, San Luis Obispo, California 93401; 805-779-0793 (Voice), or use the California Relay Service 1-800-735-2929 (Teletype to Voice), 1-800-735-2922 (Voice to Teletype), 1-800-855-3000 (Spanish Teletype to Voice and Voice to Teletype), 1-800-854-7784 (Spanish and English Speech-to-Speech), or 711.

05-SLO-46-PM 30.7-32.4
EA 05-1C150 and Project Number 0512000070

Convert the at-grade intersection of State Route 46 East and Union Road/Paso Robles to a grade-separated crossing from post miles 30.7 through 32.4 in Paso Robles, San Luis Obispo County

INITIAL STUDY
with Proposed Mitigated Negative Declaration/
ENVIRONMENTAL ASSESSMENT

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 U.S. Code 4332(2)(C) and 49 U.S. Code 303

THE STATE OF CALIFORNIA
Department of Transportation
and
Cooperating Agency: City of Paso Robles
Responsible Agency: California Transportation Commission

Jason Wilkinson

Jason Wilkinson
Acting Deputy District Director, Environmental Analysis, District 5
California Department of Transportation
CEQA and NEPA Lead Agency

7/24/23
Date

The following individual can be contacted for more information about this document:

Matt Fowler, California Department of Transportation, District 5, 50 Higuera Street, San Luis Obispo, California 93401; phone: 805-779-0793; email: matt.c.fowler@dot.ca.gov

This page intentionally left blank

DRAFT
Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: pending

District-County-Route-Post Mile: 05-SLO-46-PM 30.7 to 32.4

EA/Project Number: EA 05-1C150 and Project Number 0512000070

Project Description

The California Department of Transportation (Caltrans), in cooperation with the City of Paso Robles, proposes to construct, in two phases, an overcrossing and partial cloverleaf interchange at the intersection of State Route 46 East and Union Road/Paso Robles Boulevard. The project site is in north-central San Luis Obispo County (post mile 30.7 to 32.4).

Phase 1 of the project would convert a portion of State Route 46 from an at-grade intersection at Union Road/Paso Robles Boulevard into a new grade-separated overcrossing with an associated north-south extension of Union Road over State Route 46 (referred to as Union Road Overcrossing/Extension). North of State Route 46, Paso Robles Boulevard would be realigned to accommodate the proposed Union Road Overcrossing/Extension. The existing Union Road would be closed and removed, and a new connection with State Route 46 (referred to as Union Road Connector) would be constructed to intersect with the new Union Road west of the proposed Union Road Overcrossing/Extension.

Two roundabouts would be constructed at the following locations to connect the proposed north-south Union Road Overcrossing/Extension with local roadways and accommodate future roadway improvements:

- 1) North of State Route 46, a roundabout would be constructed at the eastern terminus of the proposed extension of Tractor Street to the northern terminus of the proposed Union Road Overcrossing/Extension.
- 2) South of State Route 46, a roundabout would be constructed within the central portion of the proposed Union Road realignment and the southern terminus of the proposed Union Road Overcrossing/Extension.

Additional State Route 46 improvements would include Huer Huero Creek Bridge widening and median improvements, including removing the existing State Route 46 median and building new medians on State Route 46 beneath the new Union Road Overcrossing/Extension and at the intersection of State Route 46 and Airport Road. State Route 46 access restrictions (right-turn in and right-turn out only) would occur at the existing Paso Robles Boulevard and Airport Road.

Phase 2 of the project would expand upon Phase 1 and would include the construction of a partial cloverleaf interchange with access ramps. The Union Road

Overcrossing/Extension would be widened, as well as the roundabout approaches, approached from Union Road to the south and Tractor Street to the north. Both roundabouts would be restriped from one lane to two lanes. A collector-distributor, which would be constructed along State Route 46, would extend from east of the State Route 46 westbound exit to the State Route 46 and Union Road interchange through the west side of the southbound right-turn entrance from Golden Hill Road to westbound State Route 46 at the Golden Hill Road and State Route 46 intersection.

The Huer Huero Creek Bridge Overcrossing would be widened to accommodate the westbound collector-distributor. State Route 46 access restrictions would occur at the existing Union Road, Paso Robles Boulevard, Airport Road, and Golden Hill Road as the Union Road Connector, Paso Robles Boulevard, and Airport Road would become a cul-de-sac. Additional State Route 46 improvements would include the construction of a new median at the intersection with Golden Hill Road, which would eliminate the existing signal control and restrict movement to allow eastbound and westbound right-turn-in and right-turn-out movements.

Determination

This proposed Mitigated Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Mitigated Negative Declaration for this project. This does not mean that Caltrans' decision regarding the project is final. This Mitigated Negative Declaration is subject to change based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project would have no effect on land use and planning and mineral resources.

The proposed project would have less than significant effects to agriculture and forest resources, air quality, energy, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, population and housing, public services, recreation, transportation, utilities and service systems, and wildfire.

With the following mitigation measures incorporated, the proposed project would have less than significant effects to visual/aesthetic resources, biological resources, cultural resources, geology and soils (paleontological resources), noise (vibration), and tribal cultural resources:

- Visual/Aesthetics-1 requires the minimization and screening of nighttime construction lighting and the inclusion of pedestrian-scale lighting.
- Visual/Aesthetics-2 requires landscaping that is compatible with the existing landscaping in the project vicinity and includes Complete Street features.
- Visual/Aesthetics-3 requires aesthetic treatments for hardscape features, compatible structural themes, and the use of contour grading and slope rounding techniques to minimize conventional cut landform appearance.
- Natural Communities-1 requires construction activities to avoid and minimize potential impacts to sensitive natural communities.

- Natural Communities-2 requires the restoration of disturbed project areas through the planting of locally native grass seeds and plugs or other native plant species consistent with the habitat that has been disturbed.
- Natural Communities-3, Natural Communities-5, and Natural Communities-6 require construction activities to avoid and minimize potential impacts to Huer Huero Creek and to protect aquatic habitats.
- Natural Communities-4 requires construction activities to avoid and minimize potential impacts to sensitive habitats and special-status species near the project area.
- Wetlands and Other Waters-1 requires the implementation of a restoration plan that provides a minimum 3-to-1 replacement ratio for permanent impacts and a 1-to-1 replacement ratio for temporary impacts to Huer Huero Creek and associated valley foothill riparian land cover.
- Wetlands and Other Waters-2 requires protection in perpetuity for 0.02 acre of impacts to seasonal wetlands (0.046 acre of preservation) or other acceptable programs or onsite restoration.
- Plant Species-1 through Plant Species-3 require preconstruction and construction activities for the avoidance and minimization of potential impacts to plant species of concern.
- Animal Species-1 requires preconstruction activities for the avoidance and minimization of potential impacts to California legless lizards.
- Animal Species-2 requires preconstruction activities to avoid and/or minimize potential impacts to coast horned lizards.
- Animal Species-3 requires preconstruction activities to avoid and/or minimize potential impacts to San Joaquin coachwhips.
- Animal Species-4 and Animal Species-5 require construction activities to avoid and/or minimize potential impacts to the San Joaquin coachwhip.
- Animal Species-6 through Animal Species-9 require preconstruction and construction activities to avoid and/or minimize potential impacts to raptors and other migratory birds.
- Animal Species-10 and Animal Species-11 require preconstruction and construction activities to avoid and/or minimize potential impacts to roosting bats.
- Animal Species-12 requires preconstruction and construction activities to avoid and/or minimize potential impacts to American badgers.
- Threatened and Endangered Species-1 through Threatened and Endangered Species-4 require preconstruction and construction activities to avoid and/or minimize potential impacts to San Joaquin kit fox dens.
- Threatened and Endangered Species-5 through Threatened and Endangered Species-15 require preconstruction and construction activities to avoid and/or minimize potential impacts to San Joaquin kit foxes.
- Threatened and Endangered Species-16 requires the conservation of 3 acres of foraging habitat to each acre impacted to compensate for potential impacts to San Joaquin kit foxes and associated habitat areas.

- Invasive Species-1 requires construction activities to avoid and/or minimize potential impacts associated with invasive species.
- Cultural Resources-1 requires adherence to the project's Programmatic Agreement between Caltrans and the California State Historic Preservation Officer to avoid and/or minimize potential impacts to cultural resources and tribal cultural resources.
- Cultural Resources-2, Cultural Resources-3, and Cultural Resources-4 require construction activities to avoid and/or minimize potential vibration impacts to the Johnson House.
- Paleontology-1 and Paleontology-2 require construction activities to avoid and/or minimize potential impacts to paleontological resources.
- Paleontology-3a and Paleontology-3b require the implementation of a Paleontological Mitigation Plan for the collection and curation of any fossils potentially discovered during construction and preparation of a final Paleontological Mitigation Report to compensate for potential impacts to paleontological resources.

_____

Jason Wilkinson
Acting Deputy District Director, Environmental Analysis, District 5
California Department of Transportation

_____

Date

Table of Contents

Chapter 1 Proposed Project 1
1.1 Introduction 1
1.2 Purpose and Need 2
1.2.1 Purpose 2
1.2.2 Need 3
1.3 Project Description 8
1.4 Project Alternatives 9
1.4.1 Build Alternatives 9
1.4.2 No-Build (No-Action) Alternative 29
1.5 Comparison of Alternatives 30
1.6 Alternatives Considered but Eliminated from Further Discussion 31
1.7 Permits and Approvals Needed 34
Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures 37
2.1 Human Environment 37
2.1.1 Existing and Future Land Use 37
2.1.2 Consistency with State, Regional, and Local Plans and Programs 46
2.1.3 Parks and Recreational Facilities 53
2.1.4 Farmland 57
2.1.5 Growth 61
2.1.6 Community Character and Cohesion 64
2.1.7 Relocations and Real Property Acquisition 74
2.1.8 Environmental Justice 83
2.1.9 Utilities and Emergency Services 87
2.1.10 Traffic and Transportation/Pedestrian and Bicycle Facilities 92
2.1.11 Visual/Aesthetics 142
2.1.12 Cultural Resources 170
2.2 Physical Environment 184
2.2.1 Hydrology and Floodplain 184
2.2.2 Water Quality and Stormwater Runoff 192
2.2.3 Geology, Soils, Seismicity, and Topography 207
2.2.4 Paleontology 217
2.2.5 Hazardous Waste and Materials 223
2.2.6 Air Quality 233
2.2.7 Noise and Vibration 256
2.2.8 Energy 275
2.3 Biological Environment 278
2.3.1 Natural Communities 278
2.3.2 Wetlands and Other Waters 287
2.3.3 Plant Species 295
2.3.4 Animal Species 313
2.3.5 Threatened and Endangered Species 334
2.3.6 Invasive Species 356

2.3.7 Cumulative Impacts 358
Chapter 3 CEQA Evaluation 373
3.1 Determining Significance Under CEQA 373
3.2 CEQA Environmental Checklist 374
3.2.1 Aesthetics 374
3.2.2 Agriculture and Forest Resources 377
3.2.3 Air Quality 378
3.2.4 Biological Resources 382
3.2.5 Cultural Resources 390
3.2.6 Energy 394
3.2.7 Geology and Soils 395
3.2.8 Greenhouse Gas Emissions 399
3.2.9 Hazards and Hazardous Materials 402
3.2.10 Hydrology and Water Quality 405
3.2.11 Land Use and Planning 409
3.2.12 Mineral Resources 410
3.2.13 Noise 411
3.2.14 Population and Housing 414
3.2.15 Public Services 415
3.2.16 Recreation 418
3.2.17 Transportation 419
3.2.18 Tribal Cultural Resources 421
3.2.19 Utilities and Service Systems 422
3.2.20 Wildfire 424
3.2.21 Mandatory Findings of Significance 426
3.3 Climate Change 428
3.3.1 Regulatory Setting 429
3.3.2 Environmental Setting 432
3.3.3 Project Analysis 436
3.3.4 Greenhouse Gas Reduction Strategies 442
3.3.5 Adaptation 445
Chapter 4 Comments and Coordination 455
Chapter 5 List of Preparers 467
Chapter 6 Distribution List 473
Appendix A Section 4(f): *De Minimis* Determination(s) and Resources Evaluated Relative to the Requirements of Section 4(f): No Use 499
Appendix B Title VI Policy Statement 509
Appendix C Preliminary Design Layouts 511
Appendix D Summary of Relocation Benefits and Right-of-Way Acquisition 513
Appendix E Glossary of Technical Terms 521
Appendix F Avoidance, Minimization and/or Mitigation Measures Summary 527
Appendix G Farmland Conversion Impact Rating Form 547

List of Figures

Figure 1-1 Project Vicinity Map 6
Figure 1-2 Project Location Map 7
Figure 1-3a Conceptual Site Plan-Phase 1 Key Map 11
Figure 1-3b Conceptual Site Plan-Phase 1 Sheet 1 12
Figure 1-3c Conceptual Site Plan-Phase 1 Sheet 2 13
Figure 1-4a Conceptual Site Plan-Phase 2 Key Map 18
Figure 1-4b Conceptual Site Plan-Phase 2 Sheet 1 19
Figure 1-4c Conceptual Site Plan-Phase 2 Sheet 2 20
Figure 1-4d Conceptual Site Plan-Phase 2 Sheet 3 21
Figure 1-5 Collector-Distributor 23
Figure 2-1 Community Impact Assessment Study Area 39
Figure 2-2 General Plan Land Use Designations in the Study Area 41
Figure 2-3 Approved Planned Projects 45
Figure 2-4 Important Farmland Map 58
Figure 2-5 Analysis Considerations of Determining Potential for Project-Related Growth 62
Figure 2-6 Specific Plans in the Study Area 68
Figure 2-7 Phase 1 of the Build Alternative-Potential Partial Right-of-Way Acquisition Map 81
Figure 2-8 Phase 2 of the Build Alternative-Potential Partial Right-of-Way Acquisition Map 82
Figure 2-9 Planned Future Projects 102
Figure 2-10 Key View Locations Map 145
Figure 2-11 Key View 1–Existing Conditions 147
Figure 2-12 Key View 2–Existing Conditions 148
Figure 2-13 Key View 3–Existing Conditions 150
Figure 2-14 Key View 4–Existing Conditions 151
Figure 2-15 Key View 5–Existing Conditions 153
Figure 2-16 Key View 6–Existing Conditions 154
Figure 2-17 Key View 1–Proposed Condition (Phase 1 and Phase 2) 157
Figure 2-18 Key View 2–Proposed Condition (Phase 1 and Phase 2) 160
Figure 2-19 Key View 3–Proposed Condition (Phase 1 and Phase 2) 162
Figure 2-20 Key View 4–Proposed Condition (Phase 1 and Phase 2) 164
Figure 2-21 Key View 5–Proposed Condition (Phase 1 and Phase 2) 166
Figure 2-22 Key View 6–Proposed Condition (Phase 1 and Phase 2) 168
Figure 2-23 Area of Potential Effects 175
Figure 2-24 Identified Historic Resources 178
Figure 2-25 Federal Emergency Management Agency Flood Zone Map 187
Figure 2-26 Project Watershed and Surface Waterbodies Map 198
Figure 2-27 Hydrologic Sub-Area Map 199
Figure 2-28 General Geologic Map 220
Figure 2-29 Noise Levels for Common Activities 259
Figure 2-30 Modeled Receiver Locations 263
Figure 2-31 Long-Term Noise Measurement Results 265

Figure 2-32 Evaluated Noise Barriers 274
Figure 2-33 Wetland Delineation.....291
Figure 3-1 U.S. 2020 Greenhouse Gas Emissions (Source: U.S. Environmental Protection Agency 2022b).....433
Figure 3-2 California 2020 Greenhouse Gas Emissions by Scoping Plan Category (Source: California Air Resources Board 2022a).....434
Figure 3-3 Change in California Gross Domestic Product, Population, and Greenhouse Gas Emissions Since 2000 (Source: California Air Resources Board 2022a).....435
Figure 3-4 Possible Use of Traffic Operation Strategies in Reducing On-Road Carbon Dioxide Emissions.....438
Figure A-1a Resources Evaluated Relative to the Requirements of Section 4(f).....502

List of Tables

Table 1.1 Utility Relocations 15
Table 1.2 Phase 1 Potential Temporary Construction Easement 16
Table 1.3 Phase 1 Potential Permanent Right-of-Way Acquisitions 16
Table 1.4 Phase 2 Potential Temporary Construction Easements 25
Table 1.5 Phase 2 Potential Permanent Right-of-Way Acquisitions 25
Table 1.6 Permits and Approvals Needed 35
Table 2.1 Study Area General Plan Land Use Designations 40
Table 2.2 Approved Planned Projects 43
Table 2.3 Consistency With State, Regional, and Local Plans and Programs 50
Table 2.4 Farmland Conversion by Alternative 61
Table 2.5 Regional, Local, and Study Area Demographics 65
Table 2.6 Ethnic and Racial Composition 66
Table 2.7 Residences in the Project Area by Assessor's Parcel Number 69
Table 2.8 Housing Characteristics in the Study Area 70
Table 2.9 Phase 1 of the Build Alternative-Potential Partial Temporary (Temporary Construction Easement) Right-of-Way Acquisitions 77
Table 2.10 Phase 2 of the Build Alternative-Potential Partial Temporary (Temporary Construction Easement) Right-of-Way Acquisitions 77
Table 2.11 Phase 1 of the Build Alternative-Potential Partial Permanent Right-of-Way Acquisitions 80
Table 2.12 Phase 2 of the Build Alternative-Potential Partial Permanent Right-of-Way Acquisitions 80
Table 2.13 Regional, Local, and Project Area Income and Poverty Levels .. 84
Table 2.14 Utility Relocations 91
Table 2.15 Level of Service Definitions and Criteria for Intersections 106
Table 2.16 Level of Service Criteria for Roundabouts 108
Table 2.17 Level of Service Criteria for State Route 46 Mainline Facilities 109
Table 2.18 Existing Conditions Intersections Levels of Service 114
Table 2.19 Existing Conditions–State Route 46 Mainline Facilities Levels of Service 115
Table 2.20a Collision Data Summary (August 1, 2015, Through December 31, 2017) 117
Table 2.20b Collision Data Summary (August 1, 2015, Through December 31, 2017) 117
Table 2.21 Year 2025 "No-Build" Conditions Intersections Levels of Service 122
Table 2.22 Year 2025 "No-Build" Conditions–State Route 46 Mainline Facilities Levels of Service 124
Table 2.23 Year 2045 "No-Build" Conditions Intersections Levels of Service 126
Table 2.24 Year 2045 "No-Build" Conditions–State Route 46 Mainline Facilities Levels of Service 126

Table 2.25 Year 2025 With “Phase 1” Conditions Intersections Levels of Service.....130
Table 2.26a Year 2025 With “Phase 1” Conditions–State Route 46 Mainline Facilities Levels of Service.....130
Table 2.26b Year 2025 With “Phase 1” Conditions–State Route 46 Mainline Facilities Levels of Service.....132
Table 2.27 Year 2045 With “Phase 1” Conditions Intersections Levels of Service.....134
Table 2.28 Year 2025 With “Phase 1” Conditions–State Route 46 Mainline Facilities Levels of Service.....134
Table 2.29 Year 2045 With “Phase 2” Conditions Intersections Levels of Service.....140
Table 2.30a Year 2045 With “Phase 2” Conditions–State Route 46 Mainline Facilities Levels of Service.....141
Table 2.30b Year 2045 With “Phase 2” Conditions–State Route 46 Mainline Facilities Levels of Service.....141
Table 2.31 Key View Locations.....144
Table 2.32 Resources Evaluated for the National and California Registers176
Table 2.33 Typical Vibration Levels for Construction Equipment.....182
Table 2.34 Static Roller Vibration Levels 182
Table 2.35 Summary of 303(d) Listed Constituents and Total Maximum Daily Load Constituents.....203
Table 2.36 Fault Data 209
Table 2.37 Paleontological Sensitivity for the Proposed Project 221
Table 2.38 State and Federal Criteria Air Pollutant Standards, Effects, and Sources.....238
Table 2.39 Estimated Daily Construction Emissions.....249
Table 2.40 Estimated Daily Mobile-Source Emissions.....253
Table 2.41 Noise Abatement Criteria 258
Table 2.42 Summary of Short-Term Noise Measurements.....262
Table 2.43 Summary of Long-Term Noise Measurement 264
Table 2.44 Construction Equipment Noise.....266
Table 2.45 Representative Construction Equipment Vibration Levels 267
Table 2.46 Summary of Abatement Key Information for Noise Barrier Westbound-2 (Wine Country Estates).....273
Table 2.47 Existing Vegetation Communities and Land Cover 279
Table 2.48 Land Cover Impacts.....284
Table 2.49 Impacts to Natural Communities of Special Concern.....285
Table 2.50 Summary of Jurisdictional Waters Within the Biological Study Area 292
Table 2.51 Potentially Occurring Special-Status Plant Species 298
Table 2.52 Potentially Occurring Special-Status Animal Species-Fish 315
Table 2.53 Potentially Occurring Special-Status Animal Species-Amphibians 316
Table 2.54 Potentially Occurring Special-Status Animal Species-Reptiles .318
Table 2.55 Potentially Occurring Special-Status Animal Species-Birds 320

Table 2.56 Potentially Occurring Special-Status Animal Species-Mammals 325
Table 2.57 Identified Threatened and Endangered Species and Survey Results-Plants 337
Table 2.58 Identified Threatened and Endangered Species and Survey Results-Fish338
Table 2.59 Identified Threatened and Endangered Species and Survey Results–Invertebrates..... 339
Table 2.60 Identified Threatened and Endangered Species and Survey Results–Amphibians and Reptiles 340
Table 2.61 Identified Threatened and Endangered Species and Survey Results–Birds 342
Table 2.62 Identified Threatened and Endangered Species–Mammals 345
Table 2.63 Federal Endangered Species Act Preliminary Effect Findings-Plants.....348
Table 2.64 Federal Endangered Species Act Preliminary Effect Findings-Fish 348
Table 2.65 Federal Endangered Species Act Preliminary Effect Findings-Invertebrates.....348
Table 2.66 Federal Endangered Species Act Preliminary Effect Findings-Amphibians and Reptiles ..... .348
Table 2.67 Federal Endangered Species Act Preliminary Effect Findings-Birds.....349
Table 2.68 Federal Endangered Species Act Preliminary Effect Findings-Mammals.....349
Table 2.69 Impacts to San Joaquin Kit Fox Foraging Habitat..... .350
Table 2.70 City of Paso Robles and County of San Luis Obispo Reasonably Foreseeable Projects..... .364
Table 2.71 County of San Luis Obispo Reasonably Foreseeable Project .. 368
Table 3.1 Regional Greenhouse Gas Reduction Plan 436
Table 3.2 Comparative Summary of Project-Area Greenhouse Gas Emissions.....440
Table 4-1 Summary of Native American Consultation 457
Table D-1 Phase 1 of the Build Alternative-Potential Partial Temporary (Temporary Construction Easement) Right-of-Way Acquisitions..... 518
Table D-2 Phase 2 of the Build Alternative-Potential Partial Temporary (Temporary Construction Easement) Right-of-Way Acquisitions..... 518
Table D-3 Phase 1 of the Build Alternative-Potential Partial Permanent Right-of-Way Acquisitions 519
Table D-4 Phase 2 of the Build Alternative-Potential Partial Permanent Right-of-Way Acquisitions 520

This page intentionally left blank

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration, is the lead agency under the National Environmental Policy Act. Caltrans is also the lead agency under the California Environmental Quality Act.

National Environmental Policy Act Assignment

California participated in the "Surface Transportation Project Delivery Pilot Program" (known as the Pilot Program) pursuant to 23 U.S. Code 327 for more than 5 years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (Public Law 112-141), signed by President Barack Obama on July 6, 2012, amended 23 U.S. Code 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, Caltrans entered into a Memorandum of Understanding pursuant to 23 U.S. Code 327 with the Federal Highway Administration. The National Environmental Policy Act Assignment Memorandum of Understanding became effective October 1, 2012, and was renewed on May 27, 2022, for a term of 5 years. In summary, Caltrans continues to assume Federal Highway Administration responsibilities under the National Environmental Policy Act and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes.

With National Environmental Policy Act Assignment, Federal Highway Administration assigned, and Caltrans assumed all of the U.S. Department of Transportation Secretary's responsibilities under the National Environmental Policy Act. This assignment includes projects on the State Highway System and Local Assistance Projects off of the State Highway System within the State of California, except for certain categorical exclusions that the Federal Highway Administration assigned to Caltrans under the 23 U.S. Code 326 Categorical Exclusion Assignment Memorandum of Understanding, projects excluded by definition, and specific project exclusions.

Caltrans, in cooperation with the City of Paso Robles, proposes the phased construction of an overcrossing and partial cloverleaf interchange at the intersection of State Route 46 and Union Road/Paso Robles Boulevard (post mile 30.7 through post mile 32.4) located in the northeastern portion of the City in north-central San Luis Obispo County. Figure 1-1 shows the project vicinity map, and Figure 1-2 shows the project location map. The State Route 46 East/Union Road Intersection Improvements project is a planned transportation improvement project that would upgrade traffic operations and reduce delays at and through the vicinity of the intersection.

Proposed funding for the project is anticipated to be from a combination of local City funds, San Luis Obispo County funds, regional San Luis Obispo Council of Governments funds, and Caltrans. Funding for the final design (Plans, Specifications, and Estimates phase) of the project is programmed through State Transportation Improvement Program funding. The final design is programmed for $1.55 million in the 2022 State Transportation Improvement Program. The City has allocated $1.55 million to match the State Transportation Improvement Program funding for project design for a total of $3.1 million for the project's Plans, Estimates, and Specifications stage.

Additional funding is needed to fully fund the project through the construction phase. Project funding is presently being pursued from federal and state funding sources, as well as the San Luis Obispo Council of Governments' Regional Transportation Improvement Plan, the City of Paso Robles' development impact fees, and local tax measures. This project has been determined to be eligible for federal-aid funding. The City of Paso Robles would likely use local development impact fees to fund the construction of Phase 1 of the project. The City would seek other sources of funding for the construction of the ultimate phase of the project in the future.

Phase 1 of the project includes the State Route 46/Union Road Overcrossing, which was originally expected to complete construction and be open to traffic by 2025 and is now anticipated to be open to traffic by 2029. Phase 2 of the proposed project includes the State Route 46/Union Road new interchange, which was originally expected to complete construction and be open to traffic by 2045 and is now anticipated to be open to traffic by 2049. The current estimated construction cost of the project, not escalated, is $59,000,000. The expected start of construction is the federal fiscal year 2026 to 2027. Construction is expected to occur in several stages over a 24-month period. For Phase 2, the current estimated cost of the project, not escalated, is $140,000,000. The expected start of construction for Phase 2 is 2046, and construction is expected to occur in several stages over a 24-month period.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of this project is to:

- Improve access to, from, along, and across State Route 46 at/through the Union Road intersection.
- Reduce delays and improve reliability and operations in the vicinity of the State Route 46 and Union Road intersection and State Route 46 and Airport Road intersection.

- Improve accessibility and connectivity for bicycles and pedestrians across State Route 46.

1.2.2 Need

1. There is limited access and connectivity for all travel modes between the north and south sides of State Route 46. Due to the existing roadway circulation and configuration, the north-south connectivity between the two sides of the State Route 46 East Corridor is limited within the City of Paso Robles. Circulation and access to/from and across the corridor are provided mainly through four north-south roadways: Buena Vista Drive, Golden Hill Road, Union Road, and Airport Road. Among these locations, only Golden Hill Road allows north-south 'through' connectivity, in other words, allowing vehicular traffic to cross State Route 46 and proceed from north to south or vice versa. In comparison, the other three locations are essentially T-intersections (a three-legged intersection that resembles a "T") that provide either a north leg or south leg that terminates at State Route 46. The Golden Hill Road and Buena Vista Drive intersections are the only locations controlled by a traffic signal; however, the signal at the Buena Vista Drive intersection is a 'high-T' signal, which is defined as a signalized intersection where the through movement gets a continuous green phase. This allows the eastbound through movement on State Route 46 to operate uncontrolled. The State Route 46 intersections at Union Road and Airport Road are stop-controlled for the minor street approaches. Stop-controlled traffic carries a lower movement priority, and in this case, northbound or southbound movements must yield to east-west State Route 46 mainline traffic. Therefore, full access to/from and across State Route 46 corridor is currently limited to Golden Hill Road signalized intersection. As such, there is a system need for providing improved full-access and north-south through access opportunities to/from State Route 46 corridor within the study area.
2. Traffic delays result in poor operations at the 'at-grade' stop-controlled State Route 46 and Union Road intersection and State Route 46 and Airport Road intersection due to:

- Existing and projected traffic volumes on State Route 46 mainline and intersecting cross-streets.
- Uncontrolled entry and exit of vehicles from 'at-grade' intersections onto the highway (such as the westbound State Route 46 left-turn movement to southbound Union Road and eastbound State Route 46 left-turn movement to northbound Airport Road).
- Merging conflicts for entry onto State Route 46.

The State Route 46 and Union Road/Paso Robles Boulevard intersection and the State Route 46 and Airport Road intersection (both existing "at-grade" unsignalized intersections) are both currently operating (2018 conditions) at "worst-case" movement/approach peak hour Level of Service "F" conditions

under practically all peak periods, inclusive of annual average and seasonal/peak month weekday morning peak hour, weekday afternoon peak hour, Friday afternoon peak hour, and Sunday peak hour conditions.

For context, Level of Service conditions are defined by Caltrans as follows:

- Level of Service A: Highest quality of service. Traffic flows freely with little or no restrictions on speed or maneuverability (no delays).
- Level of Service B: Traffic is stable and flows freely. The ability to maneuver in traffic is only slightly restricted (no delays).
- Level of Service C: Few restrictions on speed. Freedom to maneuver is restricted. Drivers must be more careful making lane changes (minimal delays).
- Level of Service D: Speeds decline slightly and density increases. Freedom to maneuver is noticeably limited (minimal delays).
- Level of Service E: Vehicles are closely spaced, with little room to maneuver. Driver comfort is poor (significant delays).
- Level of Service F: Very congested traffic with traffic jams, especially in areas where vehicles have to merge (significant delays).

Since State Route 46 carries a large volume of relatively high-speed traffic, turning movements from/to these stop-controlled minor streets (minor streets with intersections controlled by stop signs) currently experience excessive delays during critical peak periods of travel. The signalized State Route 46/Golden Hill Road intersection is currently operating at peak hour Level of Service “D” or better conditions under critical peak hour periods. As ambient regional traffic volume growth on State Route 46 mainline occurs, and local traffic volume growth occurs on City roadways in the study area, in proportion with the City General Plan, all State Route 46 study intersections are projected to experience further deterioration in Level of Service, and the State Route 46/Golden Hill Road signalized intersection is also projected to experience year 2045 peak hour Level of Service “F” conditions under annual average and seasonal peak month weekday evening and Friday evening peak hour conditions. With the proposed project, these existing at-grade intersections would be completely eliminated or access-restricted, and thus, State Route 46 mainline traffic throughput and operations would substantially improve.

3. There is a lack of ‘Complete Streets’ connectivity across the State Route 46 corridor within the project area. Connectivity for alternative transportation modes, such as pedestrians and bicyclists, is currently provided only at the Golden Hill Road intersection. The current configuration discourages people from using these alternate modes by requiring longer travel distances for some trips and a perceived lack of safety for ‘at-grade’ bike/pedestrian trips across State Route 46.

Therefore, it is important for the City of Paso Robles to provide improved multimodal facilities and north-south connections to encourage these alternative modes of travel. As State Route 46 mainline and local area traffic grows in the future, it would become increasingly difficult for the existing roadway system to deliver the much-needed access and connectivity in the study area to accommodate and encourage all modes of travel in an efficient manner. The proposed bike/pedestrian improvements are intended for planning consistency with the City of Paso Robles' 2018 Bicycle and Pedestrian Plan Update, the County of San Luis Obispo's 2016 County Bikeways Plan, and Caltrans District 5's 2020 Active Transportation Plan, which is currently in development.

Independent Utility and Logical Termini

Federal Highway Administration regulations (23 Code of Federal Regulations 771.111[f]) require that the action evaluated should:

1. Connect logical termini (defined as rational end points for a transportation improvement and rational end points for a review of environmental impacts) and be of sufficient length to address environmental matters on a broad scope.
2. Have independent utility or independent significance (in other words, be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made).
3. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

As shown in Figure 1-2, Project Location Map, the project's termini are along State Route 46. The westerly terminus is approximately 0.5 mile west of Golden Hill Road, while the easterly terminus is approximately 0.25 mile east of Airport Road. The project's termini allow for an evaluation of potential environmental effects for a project large enough to address the defined operational enhancements specifically related to the State Route 46/Union Road interchange area, as discussed above. No subsequent transportation improvements in the area would be needed to optimize the operation of Phases 1 and 2 of the Build Alternative for the State Route 46/Union Road interchange, consistent with applicable Caltrans design standards. Accordingly, the project is considered to have independent utility.

Further, the project would not restrict consideration of alternatives for other reasonably foreseeable local transportation improvements next to and/or in proximity to the State Route 46/Union Road intersection.

Figure 1-1 Project Vicinity Map

Figure 1-2 Project Location Map

1.3 Project Description

This section describes the proposed action and the project alternatives developed to meet the purpose and need of the project while avoiding or minimizing environmental impacts. The alternatives are the Build Alternative and the No-Build Alternative. The Build Alternative would include the following proposed items:

1. Construct an overcrossing and partial cloverleaf interchange at Union Road and State Route 46 from post miles 31.7 to 32.3.
2. Construct two roundabouts to connect Tractor Street north of State Route 46 and the proposed Union Road south of State Route 46 with the proposed Union Road Overcrossing/Extension.
3. Provide State Route 46 collector-distributor lanes and median improvements from post miles 30.7 to 32.4.
4. Restrict access to and from State Route 46 and the existing Union Road, Paso Robles Boulevard, and Airport Road.
5. Eliminate the existing signal control at the State Route 46 and Golden Hill Road intersection and restrict access to right-turn movements only.
6. Provide a bike lane and sidewalk along the proposed Union Road Overcrossing/Extension.

Existing Facilities

State Route 46 is a major interregional and important freight route that connects the Central Coast with the San Joaquin Valley. State Route 46 runs east-west from State Route 1 in San Luis Obispo County to State Route 99 in Kern County in Caltrans District 5. State Route 1, U.S. Route 101, and State Route 41 connect with State Route 46 in San Luis Obispo County. The State Route 46 segment east of U.S. Route 101 to the San Luis Obispo/Kern County line is also referred to as “State Route 46 East.” State Route 46 is classified as an “expressway” facility whose federal functional classification is “Principal Arterial.” Between the U.S. Route 101 interchange and Airport Road, currently, there are two signalized at-grade intersections along State Route 46, located at Buena Vista Drive and Golden Hill Road. Along the project corridor, State Route 46 intersects with Union Road/Paso Robles Boulevard, Airport Road, and Golden Hill Road.

Union Road is a two-lane arterial within the City of Paso Robles that begins at River Road and continues in a southwest-to-northeast direction, crossing Golden Hill Road and connecting to State Route 46 East. An arterial roadway is generally defined as a roadway of considerable continuity used primarily as a main traffic artery and capable of carrying high volumes of traffic.

Paso Robles Boulevard is an existing two-lane local roadway (driveway) that provides access to/from a few parcels located north of State Route 46 at the existing State Route 46/Union Road intersection.

Airport Road is a two-lane north-south undivided arterial that extends north from State Route 46 East and up to the Paso Robles Municipal Airport and continues farther north through county lands to intersect with Estrella Road.

Golden Hill Road is a two-lane north-south divided arterial within the City that provides a connection between Creston Road at the south end and locations north of State Route 46 via a signalized full-access intersection at State Route 46.

Wisteria Lane, Tractor Street, and Dry Creek Road are two-lane roadways providing local east-west circulation and access for existing and planned residential/commercial/industrial development on the north side of the State Route 46 corridor.

As noted in Section 1.2.2, Need, access and connectivity are limited for all modes of travel between the north and south sides of State Route 46 due to the existing roadway circulation and configuration. Union Road and Airport Road are T-intersections that provide either a north leg or south leg that terminates at State Route 46. The Golden Hill Road intersection is the only location controlled by a traffic signal that allows north-south connectivity. The State Route 46 intersections at Union Road and Airport Road are stop-controlled for the minor street approaches. Stop-controlled traffic carries a lower movement priority, and in this case, northbound or southbound movements must yield to east-west State Route 46 mainline traffic.

1.4 Project Alternatives

Two alternatives are under consideration: a Build Alternative and a No-Build Alternative. An interdisciplinary team developed the alternatives that are under consideration. Several criteria were taken into consideration when evaluating the various alternatives for the project, including the purpose and need, cost, and environmental impacts.

1.4.1 Build Alternatives

The Build Alternative would be constructed in two phases: Phase 1, the first/interim phase, and Phase 2, the ultimate/expanded phase. For this reason, Phase 1 is considered the reasonable project opening day alternative, and Phase 2 is the ultimate build-out alternative that would be constructed after the initial/opening phase of the project. Construction duration for each phase is expected to occur over a 24-month period, for a total of 48 months. A description of each phase is provided below.

Phase 1: Union Road Overcrossing/Extension Only

Conceptual site plans of Phase 1 are shown in Figures 1-3a through 1-3c. This phase of the project includes the following components:

Union Road

At the State Route 46 and Union Road intersection, a new overcrossing would be constructed over State Route 46. The new overcrossing and associated north-south roadway extension (referred to as Union Road Overcrossing/Extension) would be designed as a two-lane roadway with a center median, bike lanes, and sidewalk. The overcrossing structure would be about 71.5 feet wide and 307 feet long.

North of State Route 46, the new Union Road Overcrossing/Extension would extend north and connect with the eastern terminus of the proposed Tractor Street roundabout.

South of State Route 46, the existing Union Road would be realigned and would intersect through a roundabout with the Union Road Overcrossing/Extension. The existing Union Road would be closed and removed.

A new connection with State Route 46 (referred to as Union Road Connector) would be constructed to intersect with the new Union Road west of the proposed Union Road Overcrossing/Extension.

State Route 46

Along State Route 46, the eastbound left-turn lane onto Paso Robles Boulevard, the westbound left-turn lane onto Union Road, and the existing State Route 46 median would be closed. New State Route 46 eastbound on-ramps and off-ramps (with merge and diverge lanes on the State Route 46 mainline) would be constructed. A mainline median barrier would be constructed along State Route 46 from Airport Road through and east of the Huer Huero Creek Bridge. A new median would be constructed on State Route 46, beneath the new Union Road Overcrossing/Extension and at the intersection of State Route 46 and Airport Road.

Paso Robles Boulevard

North of State Route 46, Paso Robles Boulevard would be realigned to accommodate the proposed Union Road Overcrossing/Extension. The State Route 46 and Paso Robles Boulevard intersection would be access-restricted to right-turn in (onto Paso Robles Road from westbound State Route 46) and right-turn out only (from Paso Robles Boulevard onto westbound State Route 46).

Figure 1-3a Conceptual Site Plan-Phase 1 Key Map

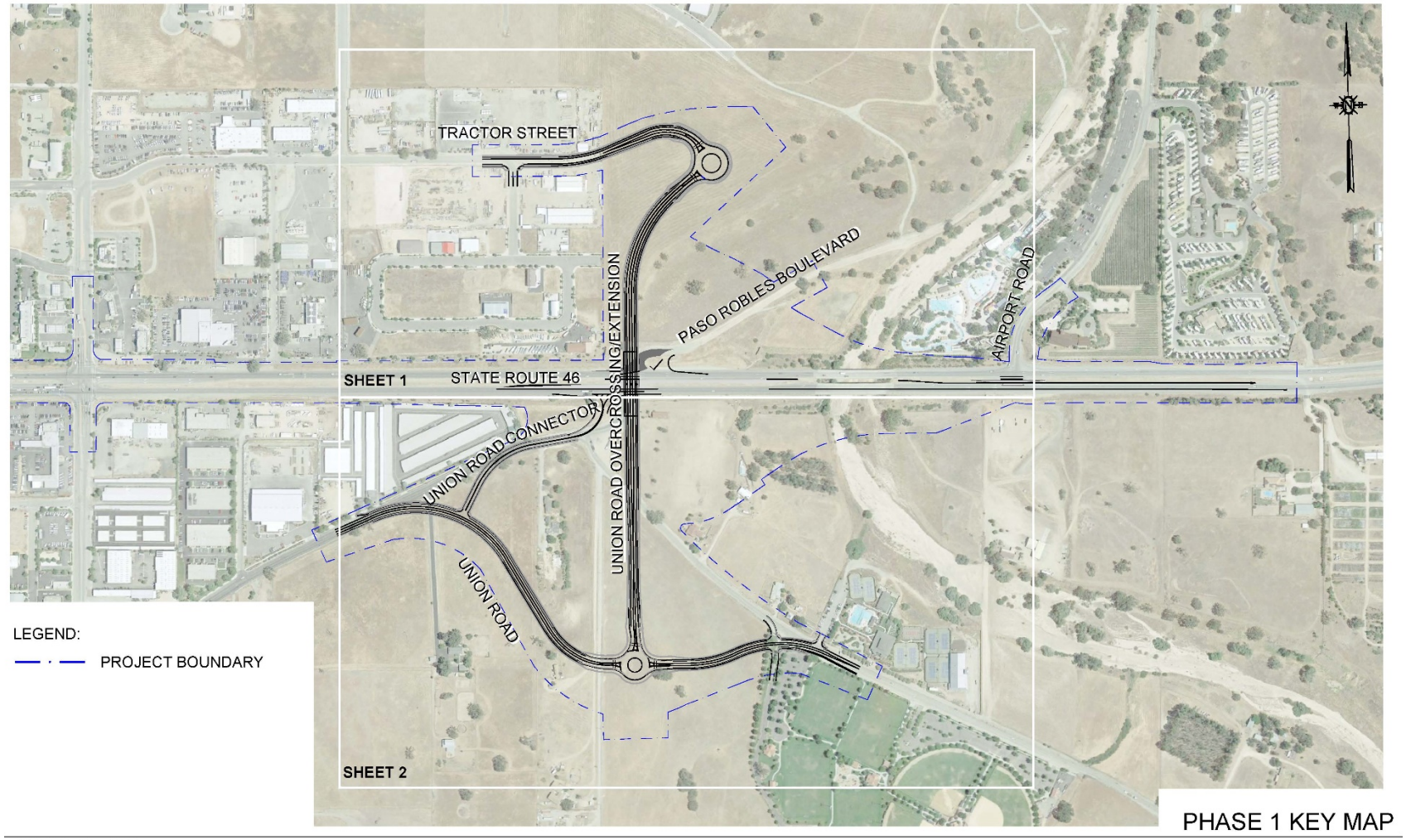


Figure 1-3b Conceptual Site Plan-Phase 1 Sheet 1

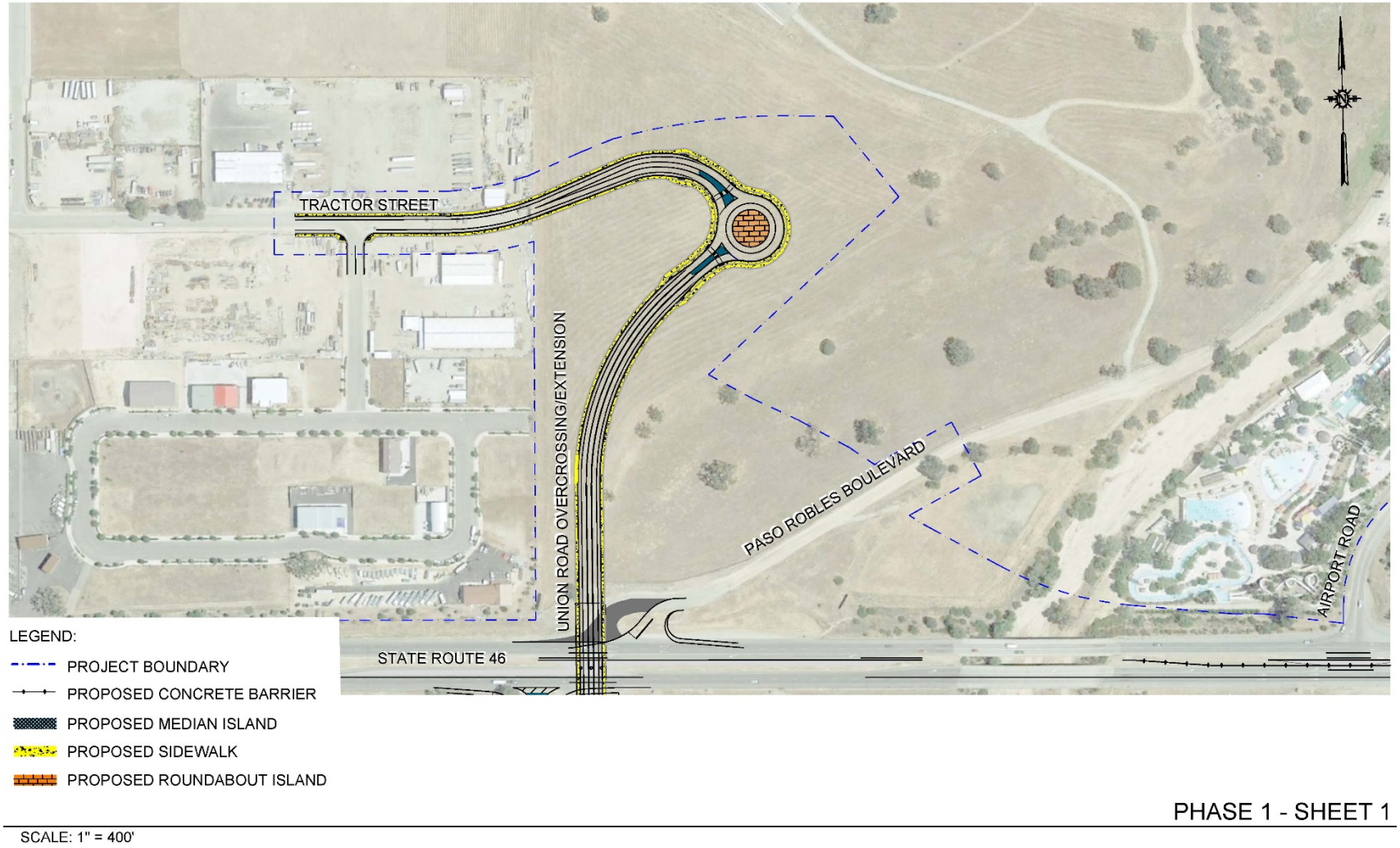
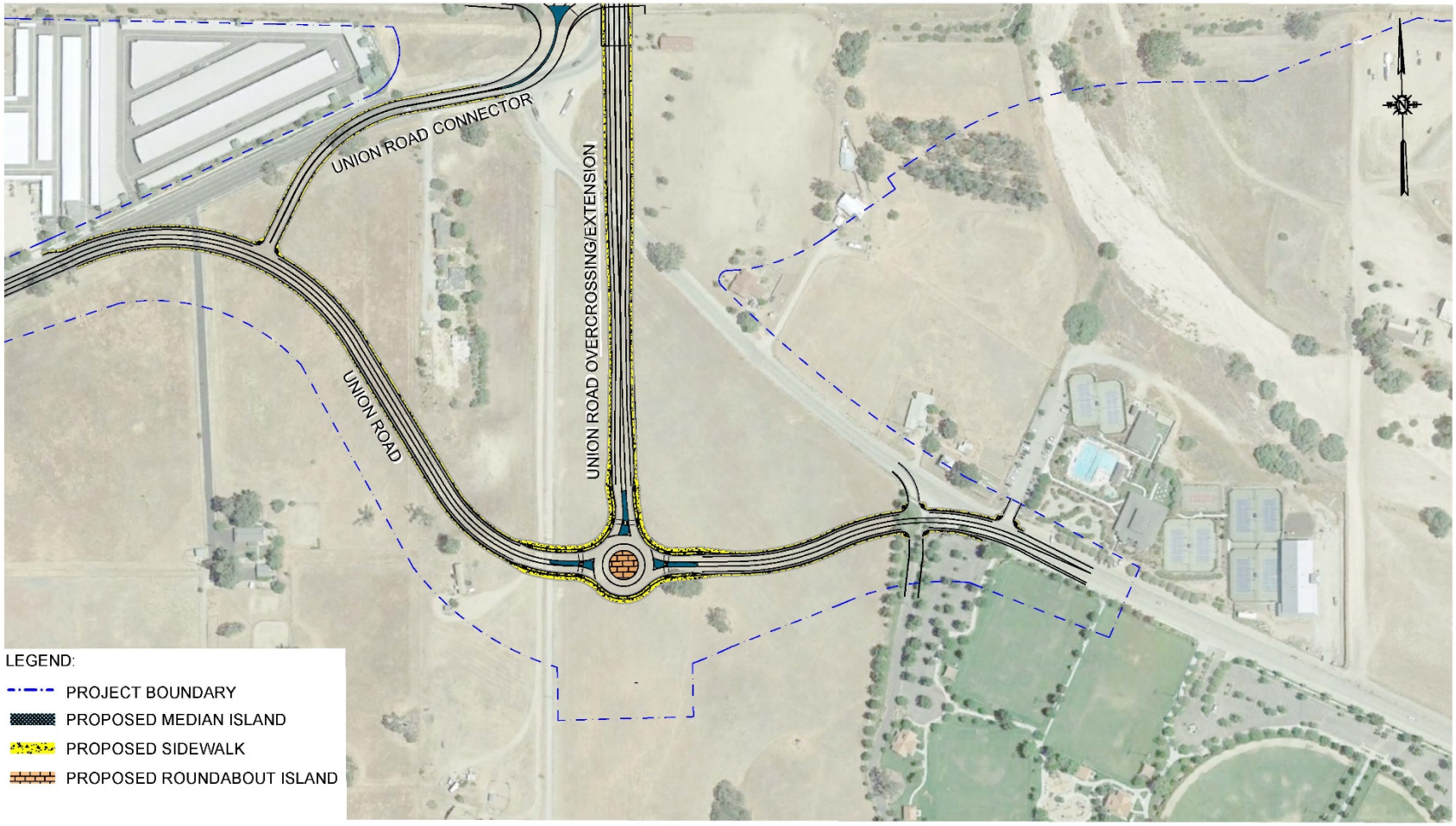


Figure 1-3c Conceptual Site Plan-Phase 1 Sheet 2



PHASE 1 - SHEET 2

SCALE: 1" = 400'

Airport Road

With the closure of the existing center median opening along State Route 46 at the existing State Route 46 and Airport Road intersection, the intersection would be access-restricted to a right-turn-in, right-turn-out-only intersection.

Golden Hill Road

No changes would occur at this intersection as part of Phase 1. The existing State Route 46 and Golden Hill Road intersection would be retained in its current configuration as a signalized, full-access, at-grade intersection.

Utilities

The project would require numerous utility relocations to accommodate proposed improvements. Affected utility providers are anticipated to include the Pacific Gas and Electric Company for overhead and underground electrical lines, the Southern California Gas Company for pressurized natural gas lines, the American Telephone and Telegraph for overhead and underground communications and cable lines, Charter Communications for a communications pole, and the City of Paso Robles Water Division for potable water pipelines; refer to Table 1.1. It is anticipated that relocation costs would be split evenly between the City of Paso Robles and affected utility providers. Coordination with each of these affected utility providers would occur during the Plans, Specifications, and Estimates phase.

Table 1.1 Utility Relocations

Affected Utility	Relocation Information
Pacific Gas and Electric Company: Overhead electrical lines at the State Route 46/Union Road intersection	Partial relocation outside of Caltrans' right-of-way and partial relocation inside Caltrans' right-of-way into a joint trench
Pacific Gas and Electric Company: Underground electrical lines within the State Route 46/Union Road intersection	Relocate to the outside of Caltrans' right-of-way into a joint trench
Southern California Gas Company: 6-inch uncased pressurized line	Relocate to the underground utility line along the newly realigned Union Road. Partial relocation is outside Caltrans' right-of-way, and partial encasement is within the right-of-way.
Southern California Gas Company: Two 4-inch uncased pressurized lines	Relocate to the underground utility line along the newly realigned Union Road. Partial relocation is outside Caltrans' right-of-way, and partial encasement is within the right-of-way.
American Telephone and Telegraph: Overhead communications and cable distribution line within Caltrans' right-of-way	Relocate underground utility into a joint trench
American Telephone and Telegraph: Four underground communication lines within Caltrans' right-of-way at the State Route 46/Union Road intersection	Relocate to one underground utility line, partially outside of the proposed Caltrans right-of-way and partially within the proposed Caltrans right-of-way
Charter Communications: Communications pole within Caltrans' right-of-way	Relocate to underground utility into a joint trench
Water: City of Paso Robles Public Works: 16-inch uncased pressurized pipeline	Relocate to the outside of the Caltrans right-of-way and encase within the right-of-way
Water: City of Paso Robles Public Works: 12-inch uncased existing pressurized pipeline	Partial relocation outside of the Caltrans right-of-way and partial relocation within the right-of-way
Water: City of Paso Robles: 8-inch uncased existing pressurized water pipeline	Partial relocation outside of the Caltrans right-of-way and partial relocation within the right-of-way

Source: Mott MacDonald, Utility Plan Maps, July 2010.

Right-of-Way

Area for temporary construction easements (required for construction vehicle and equipment access) and permanent right-of-way acquisition would be required for the Build Alternative. For Phase 1 of the project, a total of 48,371 square feet (1.11 acres) would be temporarily acquired, and 1,189,170 square feet (27.3 acres) would be permanently acquired during project construction. Under Phase 1, a total of eight parcels would be permanently affected. Tables 1.2 and 1.3 provide the assessor's parcel numbers, addresses, impact areas, and current land uses for proposed temporary construction easements and permanent acquisitions. At this time, no full permanent property acquisitions have been identified; however, final determinations on acquisitions would be determined during the right-of-way acquisition phase. Refer to Section 2.1.7, Relocations and Real Property Acquisition, and Appendix D, Summary of Relocation Benefits and Right-of-Way Acquisition, for additional details related to right-of-way. To minimize

right-of-way acquisition, roadway tangents, and circular curves, grades and embankment slopes have been designed in consideration of reducing property impacts while meeting highway design standards. Two-to-1 ratio side slopes have been designed at locations where there are deep excavations to reduce right-of-way requirements.

Table 1.2 Phase 1 Potential Temporary Construction Easement

Assessor's Parcel Number	Address	Owner	Impact Area (Square Feet)	Current Land Use
025-362-003	2930 Union Road	Private	22,796	Single-Family Residential
025-362-004	2940 Union Road	Paso Highway Hotel Partners	7,504	Commercial
025-362-036	2944 Union Road	Private	5,442	Single-Family Residential
025-362-037	2948 Union Road	Private	270	Single-Family Residential
025-371-026	None	Jonatkim Enterprises	12,359	Vacant Land

Source: Mott MacDonald, Right-of-Way Requirements Map, March 2022.

Table 1.3 Phase 1 Potential Permanent Right-of-Way Acquisitions

Assessor's Parcel Number	Address	Owner	Impact Area (Square Feet)	Current Land Use
025-362-003	2930 Union Road	Private	153,351	Single-Family Residential
025-362-004	2940 Union Road	Paso Highway Hotel Partners	56,638	Commercial
025-362-036	2944 Union Road	Private	40,778	Single-Family Residential
025-362-037	2948 Union Road	Private	3,916	Single-Family Residential
025-371-026	None	Jonatkim Enterprises	484,800	Vacant Land
025-423-010	3290 Combine Street	Private	61,165	Commercial
025-425-028	None	Private	17,833	Vacant Land
025-435-029	None	Private	370,689	Vacant Land

Source: Mott MacDonald, Right-of-Way Requirements Map, March 2022.

Stage Construction

Before the roadway and overcrossing construction, utilities would be relocated in advance. The rest of Phase 1 would be built in four main stages over 24 months. The first proposes a concrete barrier and median work along State Route 46. The second stage would consist of the construction of the Union Road Connector and Union Road Overcrossing/Extension approach roadways south of State Route 46. The third stage would consist of the

construction of Union Road Overcrossing/Extension approach roadways and the extension of Tractor Street north of State Route 46. The fourth and final stage would construct the main span of the Union Road Overcrossing/Extension over State Route 46.

Phase 2: Partial Cloverleaf Interchange

Conceptual site plans of Phase 2 are shown in Figures 1-4a through 1-4d. Phase 2 of the project would expand upon Phase 1 and would result in the ultimate project conditions. Phase 2 includes the following components:

Union Road

Following completion of Phase 1, the Union Road Overcrossing/Extension would be widened from a 70-foot wide, two-lane overcrossing to a 110-foot wide, five-lane overcrossing. South of State Route 46, Union Road, which would be realigned as part of Phase 1, would be widened at the approaches to the roundabout. The roundabout would be restriped from one lane to two lanes.

At the roundabout north of State Route 46 that would be constructed as part of Phase 1, the approaches to Tractor Street and Union Road Overcrossing/Extension would be widened. The roundabout would be restriped from one lane to two lanes.

Figure 1-4a Conceptual Site Plan-Phase 2 Key Map

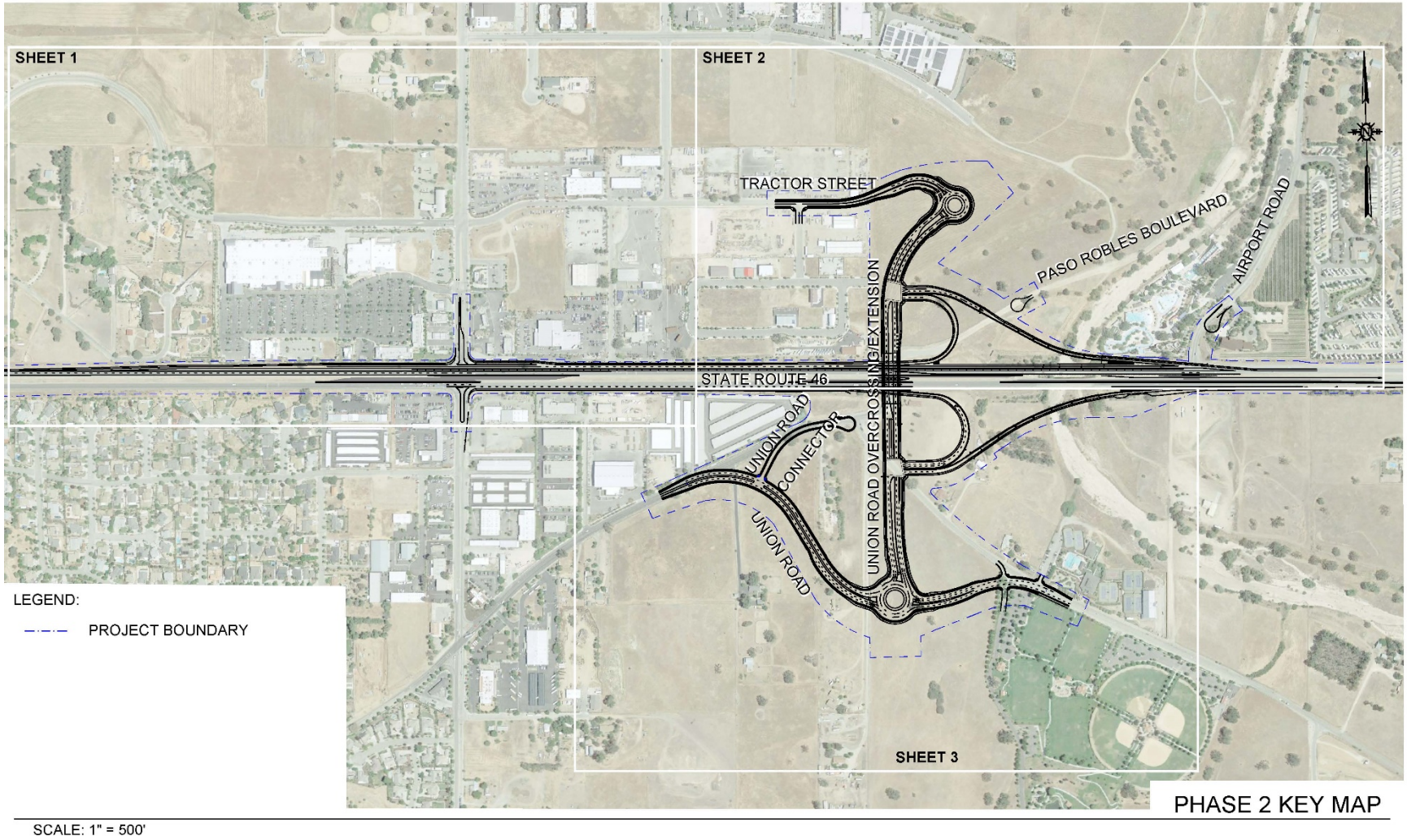
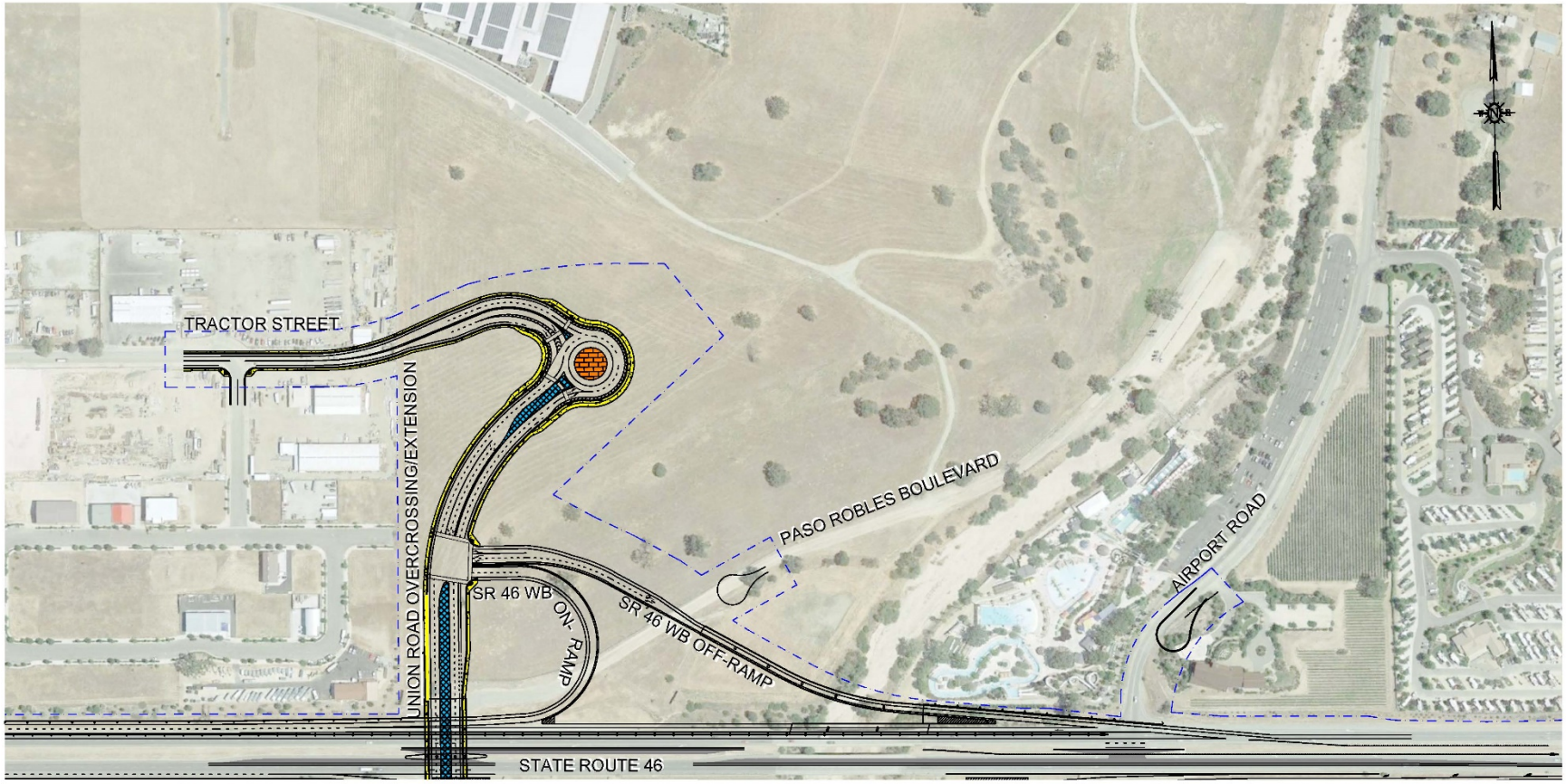


Figure 1-4b Conceptual Site Plan-Phase 2 Sheet 1

Figure 1-4c Conceptual Site Plan-Phase 2 Sheet 2



LEGEND:

- PROJECT BOUNDARY
- PROPOSED CONCRETE BARRIER
- PROPOSED MEDIAN ISLAND
- PROPOSED ROUNDABOUT
- PROPOSED RETAINING WALL
- PROPOSED SIDEWALK

PHASE 2 - SHEET 2

SCALE: 1" = 250'

Figure 1-4d Conceptual Site Plan-Phase 2 Sheet 3

State Route 46

Phase 2 of the project would include the construction of a partial cloverleaf interchange with two State Route 46 eastbound ramps and two westbound ramps. The two eastbound ramps would include an eastbound loop off-ramp and an eastbound direct-connected on-ramp. The two westbound ramps would include one westbound direct-connected off-ramp and one westbound loop on-ramp. Traffic signals would be installed at the eastbound and westbound ramp terminal intersections. The eastbound on-ramp and westbound off-ramp would include viaduct (a bridge for carrying a road over something [Huer Huero Creek]) structures along portions of the facilities.

A collector-distributor would be constructed along the north side of the State Route 46 westbound mainline to functionally serve westbound traffic that is either entering or exiting the State Route 46/Union Road interchange or State Route 46/Golden Hill Road interchange; refer to Figure 1-5. A collector-distributor is defined as a separated roadway next to a freeway, which connects two or more local road ramps or freeway connections to the freeway at a limited number of points. This collector-distributor would extend from east of the State Route 46 westbound exit to the State Route 46/Union Road interchange through the west side of the southbound right-turn entrance from Golden Hill Road to westbound State Route 46. Phase 2 would require widening the existing Huer Huero Creek Bridge to accommodate the westbound collector-distributor. A new median would be constructed on State Route 46 at the intersection with Golden Hill Road.

The Union Road Connector would become a cul-de-sac north of the Union Road roundabout, eliminating access to and from State Route 46.

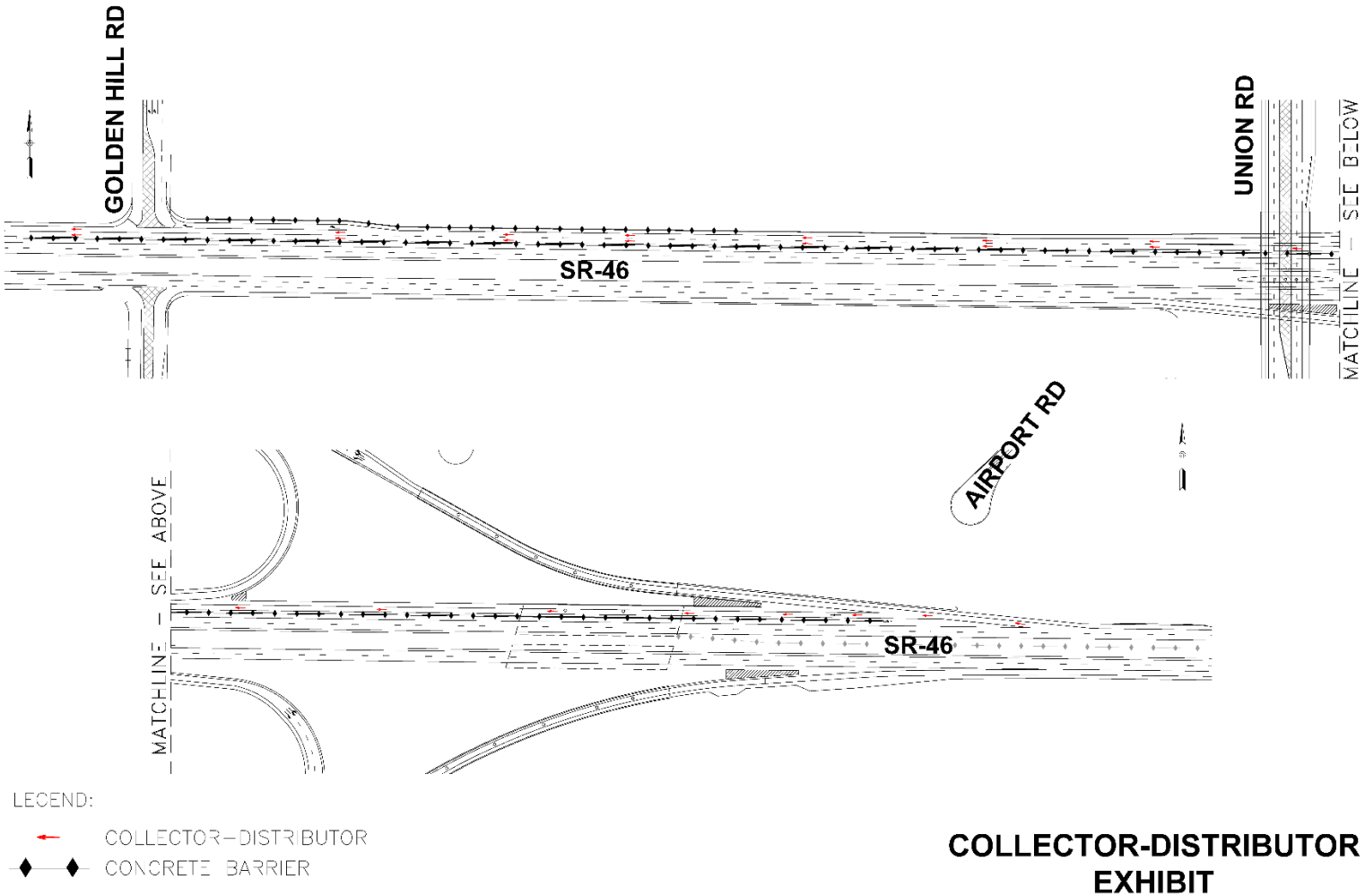
Paso Robles Boulevard

Paso Robles Boulevard would become a cul-de-sac, and the existing State Route 46 and Union Road/Paso Robles Boulevard at-grade intersection would be eliminated.

Airport Road

Airport Road would become a cul-de-sac, and the right-turn-in, right-turn-out only intersection at State Route 46 would be eliminated.

Figure 1-5 Collector-Distributor



COLLECTOR-DISTRIBUTOR EXHIBIT

Golden Hill Road

A median would be installed on Golden Hill Road at the intersection with State Route 46. The intersection would allow eastbound and westbound right-turn-in and right-turn-out movements along State Route 46. The existing signalized control would be eliminated.

The features noted above would accomplish the project's purpose because they would facilitate access and connectivity for all travel modes between the north and south sides of State Route 46. These features would also improve delays at the at-grade stop-controlled State Route 46 and Union Road intersection and State Route 46 and Airport Road intersections. The Build Alternative would also provide Complete Streets connectivity across the State Route 46 corridor.

Utilities

All utility relocations would occur during Phase 1 of the project; refer to Table 1.1 above.

Right-of-Way

Temporary construction easement areas (required for construction vehicle and equipment access) and permanent right-of-way acquisition would be required for the Build Alternative. For Phase 2 of the project, a total of 48,371 square feet (1.11 acres) would be temporarily acquired, which would affect the same parcels as Phase 1 of the Build Alternative. An equal width of temporary construction easement areas would be required to accommodate construction vehicles and equipment access during both Phase 1 and Phase 2 of the Build Alternative during construction. Compared to Phase 1, an additional 479,089 square feet (10.998 acres) would be permanently acquired during Phase 2 construction. Under Phase 1, a total of eight parcels would be permanently affected, while under Phase 2, a total of 14 parcels would be permanently affected. Tables 1.4 and 1.5 provide the assessor's parcel numbers, addresses, impact areas, and current land uses for proposed temporary construction easements and permanent acquisitions. At this time, no full permanent property acquisitions have been identified; however, final determinations on acquisitions would be determined during the right-of-way acquisition phase. Refer to Section 2.1.7, Relocations and Real Property Acquisition, for additional details related to right-of-way.

Table 1.4 Phase 2 Potential Temporary Construction Easements

Assessor's Parcel Number	Address	Owner	Impact Area (Square Feet)	Current Land Use
025-362-003	2930 Union Road	Private	22,796	Single-Family Residential
025-362-004	2940 Union Road	Paso Highway Hotel Partners	7,504	Commercial
025-362-036	2944 Union Road	Private	5,442	Single-Family Residential
025-362-037	2948 Union Road	Private	270	Single-Family Residential
025-371-026	None	Jonatkim Enterprises	12,359	Vacant Land

Source: Mott MacDonald, Right-of-Way Requirements Map, March 2022.

Table 1.5 Phase 2 Potential Permanent Right-of-Way Acquisitions

Assessor's Parcel Number	Address	Owner	Impact Area (Square Feet)	Current Land Use
025-371-017	2961 Union Road	Private	113,545	Single-Family Residential
025-371-025	2975 Union Road	Paso Robles Sports Club	60,812	Commercial
025-371-026	None	Jonatkim Enterprises	28,579	Vacant Land
025-371-031	2981 Union Road	Ravine Waterpark	4,218	Commercial
025-433-001	None	Private	108,460	Vacant Land
025-433-012	2301 Airport Road	Ravine Waterpark	7,920	Commercial
025-433-013	2300 Airport Road	Foley Family Wines	12,433	Commercial
025-435-029	None	Private	130,061	Vacant Land
025-437-008	3507 Combine Street	Private	107	Commercial
025-437-009	3511 Combine Street	Private	967	Commercial
025-437-010	3515 Combine Street	Private	1,679	Commercial
025-437-011	3519 Combine Street	Private	2,502	Vacant Land
025-437-012	3523 Combine Street	Private	3,234	Vacant Land
025-437-013	3527 Combine Street	S and R Family Holdings	4,572	Vacant Land

Source: Mott MacDonald, Right-of-Way Requirements Map, March 2022.

Stage Construction

Before the roadway and overcrossing construction, utilities would be relocated in advance. Phase 2 would be constructed in five main stages over a 24-month period. The first stage would involve pavement widening, retaining wall construction, Huer Huero Creek Bridge widening, concrete barrier installation along westbound State Route 46, and median work on Golden Hill Road north of State Route 46. The second stage would construct the State Route 46 westbound on-ramp and off-ramps and viaduct structures.

The third stage would involve median work on Golden Hill Road south of State Route 46 and median work along State Route 46. The fourth stage would construct the State Route 46 eastbound on-ramps and off-ramps, retaining walls, and viaduct structures. The fifth stage would construct the Union Road Overcrossing/Extension and widen roadways.

Caltrans Standardized Project Measures

This project contains standardized project measures (Standard Specifications, Standard Special Provisions, and Construction Site Best Management Practices) that are used on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the project. These measures are included as project features for both project phases and addressed in more detail in the Environmental Consequences sections found in Chapter 2 when appropriate.

- In accordance with the Highway Design Manual, long-life pavement is a standard project feature for this project. The pavement design life for new construction and reconstruction projects shall be no less than 40 years (Highway Design Manual, Chapter 610, Section 612.2 - New Construction and Reconstruction).
- A Transportation Management Plan would be prepared during the final design phase to minimize traffic impacts during construction. The main objective of the Transportation Management Plan is to maintain safe movement through the construction zone, as well as minimize traffic delays during the construction period. The Transportation Management Plan would include, but would not be limited to, the following six major elements:
    - Public information/public awareness campaign
    - Traveler information strategies
    - Incident management
    - Construction strategies
    - Demand management
    - Alternate route strategies
- Comply with standard provisions dealing with the discovery of unanticipated cultural materials and human remains.
- Comply with Standard Specifications Sections 7-1.04, 13-4.03F, 13-7.03C, 10-5, 14-9.02, and 18-1.03 (Caltrans, 2022) and other standard practices according to the California Air Resources Board and San Luis Obispo County Air Pollution Control District requirements for air quality restrictions, such as reducing idling time, properly maintaining equipment, and controlling fugitive dust during the construction period. Construction equipment fleets would comply with Best Available Control Technology requirements.

- All engines or portable engine-driven equipment required to obtain permits would obtain either a California Air Resources Board Portable Equipment Registration or a permit from San Luis Obispo County Air Pollution Control District.
- Comply with sound control provisions as included in Standard Specifications Section 14-8.02, Noise Control (Caltrans, 2022). The contractor would not be allowed to exceed 86 decibels at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. Internal combustion engines would be equipped with the manufacturer-recommended muffler. Internal combustion engines would not be operated on the job site without the appropriate muffler.
- Follow Standard Specifications Sections 13-05 and 21 (Caltrans, 2022) related to erosion control during construction. Measures include temporary large sediment barriers, soil binders, rock slope protection, revegetation with erosion control seed mix, and the use of a 4-to-1 ratio for slopes or flatter.
- Earthwork would be performed in accordance with Standard Specifications Section 19 (Caltrans, 2022), which requires standardized measures related to compacted fill, over excavation and recompaction, and retaining walls, among other requirements.
- Construction would be conducted in accordance with Standard Specifications Sections 21-1 through 21-3, Erosion Control (Caltrans, 2022), requiring erosion protection and drainage control.
- Design Pollution Prevention Best Management Practices as required under the Caltrans Municipal Separate Storm Sewer Systems Permit for areas within the state right-of-way that focus on reducing or eliminating runoff and controlling sources of pollutants would be implemented as part of the project.
- Design Pollution Prevention Best Management Practices as required under the County of San Luis Obispo Stormwater Management Program Municipal Separate Storm Sewer Systems General Permit for areas outside of the State right-of-way that focus on reducing or eliminating runoff and controlling sources of pollutants would be implemented as part of the project.
- Comply with the following Standard Specifications (Caltrans, 2022) regarding proper removal, handling, and disposal of the generated traffic striping waste at a permitted disposal facility:
    - Section 14-11.12, Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue.
    - Section 36-4, Residue Containing Lead from Paint and Thermoplastic.
    - Section 84-9.03B, Remove Traffic Stripes and Pavement Markings Containing Lead.

- Follow Standard Specifications Section 14-11.02, Discovery of Unanticipated Asbestos and Hazardous Substances (Caltrans, 2022), if unknown wastes or suspect materials are discovered during site disturbance activities that may involve hazardous waste/materials.
- During construction, solid waste would be disposed of as specified in Standard Specifications Section 14-10.01, General (Caltrans, 2022).
- During construction, dust palliatives would be used as specified in Standard Specifications Section 18-1.03A, General (Caltrans, 2022).
- All grading would use contour grading and slope rounding techniques to minimize conventional cut landform appearance as per Highway Design Manual Section 304.4.

Transportation Demand Management, Transportation System Management, and Mass Transit Alternatives

Transportation System Management strategies increase the efficiency of existing facilities; they are actions that increase the number of vehicle trips a facility can carry without increasing the number of through lanes. Examples of Transportation System Management strategies include ramp metering, auxiliary lanes, turning lanes, reversible lanes, and traffic signal coordination. Transportation System Management also encourages automobile, public and private transit, ridesharing programs, and bicycle and pedestrian improvements as elements of a unified urban transportation system. Modal alternatives integrate multiple forms of transportation modes, such as pedestrian, bicycle, automobile, rail, and mass transit.

Transportation Demand Management focuses on regional means of reducing the number of vehicle trips and vehicle miles traveled and increasing vehicle occupancy. It facilitates higher vehicle occupancy or reduces traffic congestion by expanding the traveler's transportation options in terms of travel method, travel time, travel route, travel costs, and the quality and convenience of the travel experience. A typical activity would provide funds to regional agencies that are actively promoting ridesharing, maintaining rideshare databases, and providing limited rideshare services to employers and individuals.

Although Transportation System Management, Transportation Demand Management, and mass transit measures alone could not satisfy the purpose and need of the proposed project, the project would provide a bike lane and sidewalk along the proposed Union Road Overcrossing/Extension. This feature would improve mobility through the interchange for bicyclists and pedestrians.

Reversible Lanes

Assembly Bill 2542 amended California Streets and Highways code to require, effective January 1, 2017, that Caltrans, or a regional transportation

planning agency, demonstrate that reversible lanes were considered when submitting a capacity-increasing project or a major street or highway lane realignment project to the California Transportation Commission for approval (California Streets and Highways Code, Section 100.015).

Reversible lanes are most appropriate in corridors with high directional splits. Substantially higher volumes of vehicles traveling in one direction are needed for this type of treatment. The traffic directional split (after allowing for traffic growth) should be 65 percent or more in the heavier direction of flow. The peak hour directional traffic volume splits of State Route 46 mainline traffic through the project limits ranges between 53 percent and 60 percent (from existing through year 2045 conditions).

Reversible lanes can also be used on sections of highways where expansion is severely constrained by right-of-way and environmental considerations, such as bridges and tunnels. Due to the unique operational requirements of reversible lanes, the minimum length for such a facility should be 2 miles.

State Route 46 mainline through the project limits does not extend through a right-of-way or environmentally constrained area for 2 miles or more. For these reasons, reversible lanes are not appropriate for this project.

1.4.2 No-Build (No-Action) Alternative

The No-Build Alternative refers to the scenario/condition where no improvements are constructed at/through the study intersection. This alternative would retain the existing unsignalized at-grade intersection configuration at State Route 46 and Union Road from the present year through long-term future conditions. This alternative does not meet the purpose and need of the project for the reasons described below.

Delays would continue and increase over time due to existing and projected traffic volumes on State Route 46 mainline and intersecting cross streets along the project corridor. Operations at the at-grade stop-controlled intersections of State Route 46/Union Road and State Route 46/Airport Road, both of which are currently operating at Level of Service “F” conditions under practically all peak periods, would not be improved. Uncontrolled entry and exit of vehicles from at-grade intersections onto the highway and merging conflicts for entry onto State Route 46 would continue to exacerbate concerns related to access and accessibility for bicyclists and pedestrians.

Access and connectivity for all modes of travel between the north and south sides of State Route 46 would not be improved. Access and connectivity for bicycle and pedestrian users would not be increased and improved.

1.5 Comparison of Alternatives

When alternatives are evaluated, the purpose and need of the project, as well as the locations where environmental impacts could occur, need to be considered.

The Build Alternative would satisfy the purpose and need of the project because it would improve access and operations, reduce delays, and improve connectivity for all users. A detailed discussion of the project's purpose and need is included in Sections 1.2.1 and 1.2.2 of this document.

A range of design features has been incorporated to minimize the environmental impacts of the Build Alternative. An example includes the incorporation of a nonstandard design of a 2-to-1 ratio side slope of the abutment fills for the Huer Huero Creek Bridge, which was proposed to minimize biological and floodplain impacts and results in a reduction of 60 feet of fill slope into the floodplain. In addition, roadway alignments were designed to minimize impacts to existing drainage ditches and drainage outfalls through the use of roadway tangents, circular curves, grades, and embankment slopes to avoid or minimize impacts to environmental resources.

The No-Build Alternative would not satisfy the identified purpose or needs of the project because it would not improve access and operations, reduce delays, and improve connectivity for bicyclists and pedestrians. Delays within the project limits would continue to worsen over time. Since the No-Build Alternative would not result in any construction or changes to existing conditions, it would not result in any temporary or permanent impacts on environmental resources.

After comparing and weighing the benefits and impacts of all feasible alternatives, as discussed above, the project development team has identified the Build Alternative as the preferred alternative, subject to public review. The final identification of a preferred alternative will occur after the public review and comment period.

After the public circulation period, all comments will be considered, and Caltrans will select a preferred alternative and make the final determination of the project's effect on the environment. Under the California Environmental Quality Act, if no unmitigable significant adverse impacts are identified, the Department will prepare a Negative Declaration or Mitigated Negative Declaration.

Similarly, if Caltrans, as assigned by the Federal Highway Administration, determines the National Environmental Policy Act action does not significantly impact the environment, Caltrans will issue a Finding of No Significant Impact.

1.6 Alternatives Considered but Eliminated from Further Discussion

The 2014 Project Study Report/Project Development Support evaluated five project alternatives: 1) no-build, 2) signal-controlled intersection, 3) roundabout-controlled intersection, 4) overcrossing only, and 5) full interchange. Of these five alternatives, the no-build, overcrossing only, and full interchange were carried forward for a detailed evaluation in the Project Approval/Environmental Document phase of the project. The signal-controlled intersection and roundabout-controlled intersection alternatives were eliminated from further discussion because of design constraints, right-of-way acquisition, and the alternatives did not fully meet the purpose and need of the project.

Alternative 2: Signalize-Controlled Intersection Alternative

In this alternative, the intersection of State Route 46 East and Union Road would have been improved to be a signalized intersection. The signalized intersection would have been an interim alternative for providing improved access and Level of Service to the turning/crossing vehicles and improving pedestrian access. This alternative would have essentially retained the existing at-grade condition at the State Route 46 and Union Road intersection. This alternative included the following elements:

- Provide a 460-foot left-turn lane and 460-foot right-turn lane for the eastbound direction on State Route 46. Each turn lane would have also included a 120-foot bay taper. These lengths would have provided an adequate deceleration length (435 feet) for a design speed of 70 miles per hour, using a speed reduction of 20 miles per hour in the through lane. The remaining length (145 feet) would have been for vehicle storage.
- Provide 460-foot dual left-turn lanes and a 460-foot right-turn lane for the westbound direction on State Route 46. The turn lanes would have also included a 120-foot bay taper. These lengths would have provided an adequate deceleration length (435 feet) for a design speed of 70 miles per hour, using a speed reduction of 20 miles per hour in the through lane. The remaining length (145 feet) would have been for vehicle storage.
- Eliminate the current connection from Paso Robles Boulevard.
- Realign the Union Road connection with State Route 46. The south leg of the intersection would have included two northbound left-turn lanes, one through lane, and two southbound receiving lanes.
- Construct a new Union Road connector north leg at the State Route 46 intersection. This new leg would have included one southbound left-turn lane, two through lanes, and two northbound receiving lanes.

- Provide shoulders wide enough to accommodate bike traffic on State Route 46 and Union Road.
- Provide pedestrian improvements, including sidewalks, Americans with Disabilities Act-compliant curb ramps, pedestrian signal heads, and crosswalks at the State Route 46 and Union Road intersection.

After review of this alternative, Caltrans, in cooperation with the City of Paso Robles, decided to eliminate it because the alternative would impede traffic flow and progression along State Route 46, cause queuing and spillovers between Golden Hill Road and Union Road signalized intersections, and would not substantially improve State Route 46 mainline operations. This alternative would not meet the purpose and need of the project.

Alternative 3: Roundabout Alternative

In this alternative, a roundabout would have been constructed at the current State Route 46 and Union Road intersection location. This alternative represented an “at-grade” solution that would have essentially retained the existing at-grade condition at the State Route 46 and Union Road intersection. This alternative included the following elements:

- Construct a four-legged, two-lane roundabout.
- Maintain two lanes per direction along both directions of State Route 46.
- Eliminate the current connection from Paso Robles Boulevard.
- Realign the Union Road connection with State Route 46. The south leg of the intersection would have included one northbound approach lane and one southbound receiving lane.
- Construct a new Union Road connector north leg at the State Route 46 intersection. This new leg would have included one southbound approach lane and one northbound receiving lane.
- Include pedestrian crossings on the northbound, southbound, and eastbound approaches.
- Include on-street bicycle lanes on Union Road. Bicycle up-ramps and down-ramps would have been provided before and after pedestrian crossings allowing bicyclists to bypass travel through the roundabout circulating lanes if they wished.
- For this roundabout, the eastbound State Route 46 approach would have required pedestrian-activated signals (such as pedestrian hybrid beacons).

After reviewing Alternative 3, Roundabout Alternative, Caltrans, in cooperation with the City of Paso Robles, decided to eliminate it because, similar to Alternative 2, Signalized-Controlled Intersection Alternative, Alternative 3 would have impeded through traffic flow and progression along State Route 46, caused queuing and spillovers between Golden Hill Road

and Union Road intersections, and would not have substantially improved State Route 46 mainline operations. This alternative would not meet the purpose and need of the project.

Previous Alternative: Roundabout at East Location Alternative

In this alternative, the intersection of State Route 46 East and Union Road would have been replaced by a roundabout. Similar to Alternative 3, this roundabout would have constructed a four-legged, two-lane roundabout. However, this roundabout would have been placed about 250 feet east of the current State Route 46 East and Union Road intersection. The lane configuration from the Union Road approaches would have also been different than those proposed in Alternative 3. After a review of this alternative, Caltrans, in cooperation with the City of Paso Robles, decided to eliminate it because it would have provided the same operational benefits as Alternative 3, but it would have required significantly more right-of-way acquisition. Additionally, this alternative would have impeded traffic flow and progression along State Route 46 and caused queuing and spillovers between Golden Hill Road and Union Road intersections. Furthermore, it would have not substantially improved State Route 46 mainline operations. This alternative would not meet the purpose and need of the project. For these reasons, this alternative was eliminated.

Previous Alternative: Left-Turn Access Restriction Alternative

In this alternative, left turns to and from Union Road and Paso Robles Boulevard legs of the State Route 46/Union Road intersection would have been eliminated, making the existing unsignalized intersection of State Route 46 and Union Road operate as a “right-in, right-out only” intersection. Left-turning vehicles would have needed to divert to the nearby State Route 46 and Golden Hill Road intersection, which is a signalized intersection. This alternative would not have improved overall access to and from State Route 46, and, therefore, this alternative was eliminated since it would not have met the project purpose and need.

Previous Alternative: Tight Diamond Interchange

A “tight diamond” interchange concept at the State Route 46 and Union Road intersection was considered. However, after reviewing this alternative, Caltrans, in cooperation with the City of Paso Robles, decided to eliminate it since it would have been infeasible due to insufficient spacing between the proposed ramp junctions and the nearby State Route 46 and Golden Hill Road intersection.

Previous Alternative: Undercrossing at Huer Huero Creek

This alternative proposed a new roadway extending easterly from Union Road to the existing highway bridges over Huer Huero Creek. The roadway would

have crossed beneath the bridges on the west bank of the creek, connecting to a roadway on the north side of State Route 46. The undercrossing alternative would have included hook ramps for both directions on State Route 46. The eastbound off-ramp would have likely required the construction of retaining walls to avoid impacts to the existing Paso Robles Self Storage property. The eastbound on-ramp would have extended past the existing Huer Huero Creek Bridge and required bridge widening modifications. Due to the proposed undercrossing of the Huer Huero Creek Bridges and the existing higher ground topography on the north side of State Route 46, substantial grading would have been necessary to construct the roadway improvements. After preliminary consideration, although this alternative would have likely accomplished the project's basic purpose and need, this undercrossing alternative raised several concerns related to slope stability, scour potential, liquefaction, difficulty in equipment access, and floodplain impacts. Therefore, Caltrans, in cooperation with the City of Paso Robles, decided to eliminate it.

Previous Alternative: "Overcrossing Only" Alternative

This alternative proposed building an overcrossing at the existing State Route 46 and Union Road intersection, served by a partial interchange consisting of State Route 46 eastbound on-hook ramp and off-hook ramp movements intersecting with Union Road through a connector. This alternative would have partially satisfied the project's purpose and need since it would have improved access and operations along State Route 46 mainline by eliminating an existing at-grade intersection conflict and improved north-south capacity and access across State Route 46 through the new overcrossing. However, after a review of this alternative, the City of Paso Robles decided to eliminate it because it would not have improved access to, from, or along State Route 46. Therefore, Caltrans, in cooperation with the City of Paso Robles, decided to eliminate it since it did not provide adequate traffic operational capacities through the year 2045.

1.7 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications are required for project construction:

Table 1.6 Permits and Approvals Needed

Agency	Permit/Approval	Status
California Department of Fish and Wildlife	Section 1602 Streambed Alteration Agreement	A formal application would be submitted after approval of the final environmental document. An agreement would be acquired prior to the completion of the final design.
U.S. Army Corps of Engineers	Section 404 Nationwide Permit Number 10	A formal application would be submitted after approval of the final environmental document. A permit would be acquired prior to the completion of the final design.
U.S. Fish and Wildlife Service	U.S. Fish and Wildlife Service Section 7 Consultation	Consultation would occur prior to the publication of the final environmental document.
State Water Resources Control Board/Regional Water Quality Control Board	401 Water Quality Certification/National Pollutant Discharge Elimination System Discharge	A formal application for certification would be submitted after approval of the final environmental document. Certification would be acquired prior to completion of the final design.
State Water Resources Control Board/Regional Water Quality Control Board	Construction General Permit	A formal application would be applied for prior to project construction.
San Luis Obispo Air Pollution Control District	Construction permits, if necessary	A formal application would be submitted prior to project construction if determined necessary. A permit would be acquired prior to project construction.
City of Paso Robles Planning and Building Department	Roadway encroachment permit, tree removal permit	To be requested during the Plans, Specifications, and Estimates phase.
Private Property Owners	Permanent land acquisition, temporary easements, and permanent easements	To be acquired during the right-of-way acquisition phase.

This page intentionally left blank

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

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

- **Coastal Zone—**California's Coastal Zone generally extends 1,000 yards inland from the mean high tide line. The project area is situated in San Luis Obispo County, approximately 18 miles east of the Coastal Zone boundary. Accordingly, the project site is not within the Coastal Zone. Therefore, the project is not subject to the federal Coastal Zone Management Act of 1972 or the California Coastal Act of 1976. (Source: California Coastal Commission, Maps Coastal Zone Boundary, accessed July 30, 2021. Available at https://www.coastal.ca.gov/maps/czb/)
- **Wild and Scenic Rivers—**The project is not near any National Wild and Scenic Rivers. (Source: National Wild and Scenic Rivers System, accessed July 30, 2021. Available at https://www.rivers.gov/map.php; and California Public Resources Code Section 5093.53)
- **Timberlands—**There are no timberlands, timber harvesting uses, or Timber Production Zones in the project area. (Source: City of Paso Robles General Plan 2010 Circulation Element, Final Environmental Impact Report, dated February 2011; City of Paso Robles General Plan Land Use Element)

2.1 Human Environment

2.1.1 Existing and Future Land Use

This section is based on the May 2023 Community Impact Assessment that was prepared for the project. Land use impacts were analyzed in the context of the community impact assessment study area, as described in the Community Impact Assessment and below and identified in Figure 2-1, Community Impact Assessment Study Area.

Refer to Section 2.1.4, Farmland, for information pertaining to agricultural land use designations and zoning.

Affected Environment

Within the study area north of State Route 46 East (State Route 46), existing land uses are predominately active agricultural, open space, commercial/business park, public facilities, and residential, with existing residential development that is characterized mainly as low-density single-family (a range between 1 and 6 dwelling units per gross acre) in a rural environment, with some multifamily residential development just east of U.S. Route 101. South of State Route 46, existing land uses are predominately residential, commercial, and open space, with existing residential development that is characterized mainly as low density and medium density in an urbanized environment. Many of the community's commercial businesses are near the State Route 46/Golden Hill Road intersection and along Creston Road. There is one existing City park and three planned City parks in the study area, which are described in Section 2.1.3, Parks and Recreational Facilities. There is one elementary school, one college campus, five places of worship, and approximately eight wineries in the study area. In addition, several large specific plan areas are within the study area—particularly to the south and west of the project area—that consist of some newer subdivisions pursuant to City-approved specific plans.

Table 2.1 includes the study area general plan, land use designations based on the City's most recent land use diagram, and a specific plan map dated September 13, 2018. Figure 2-2, General Plan Land Use Designations in the Study Area, shows the land use designations within the study area, as defined in the City's General Plan.

Figure 2-1 Community Impact Assessment Study Area

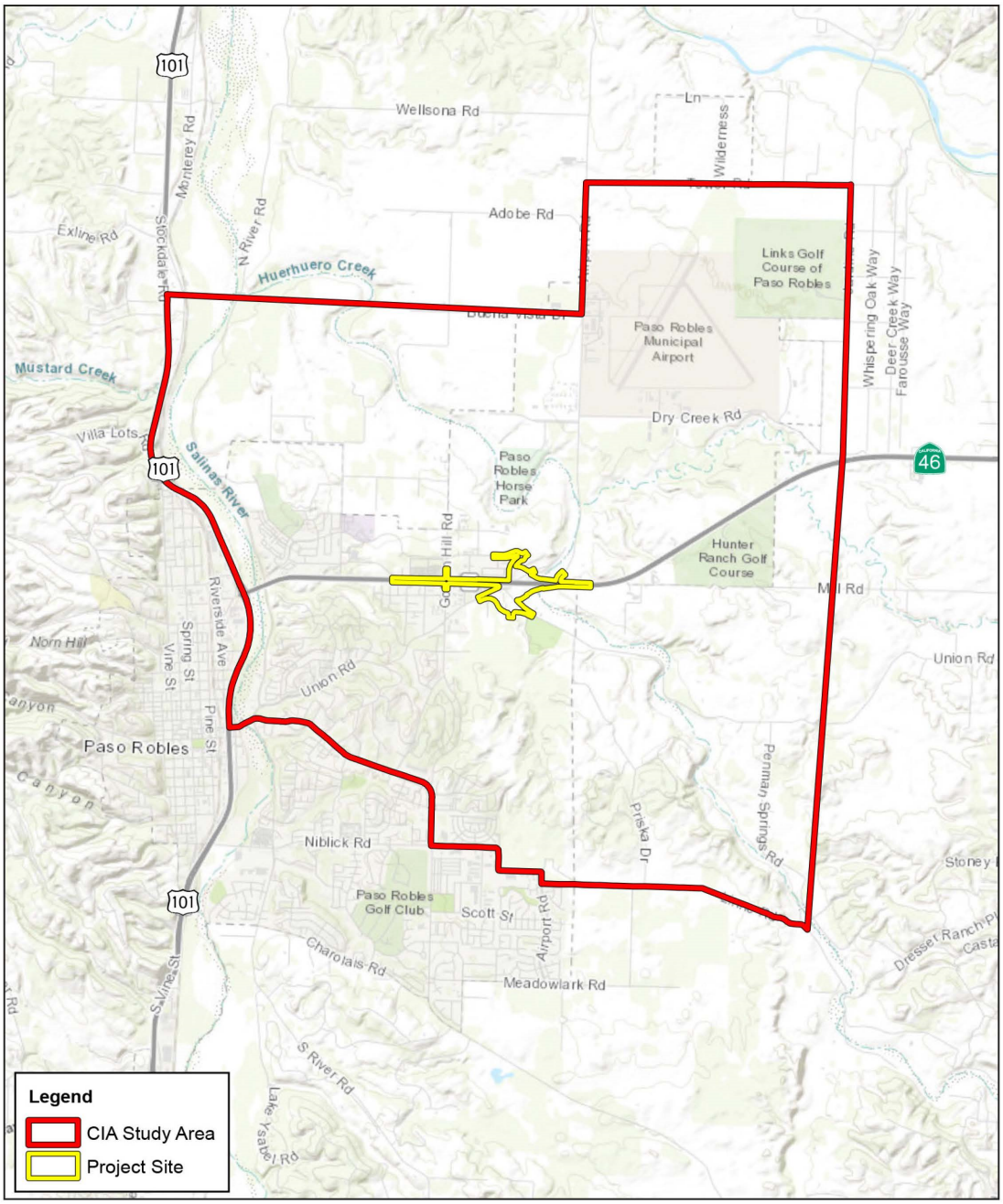


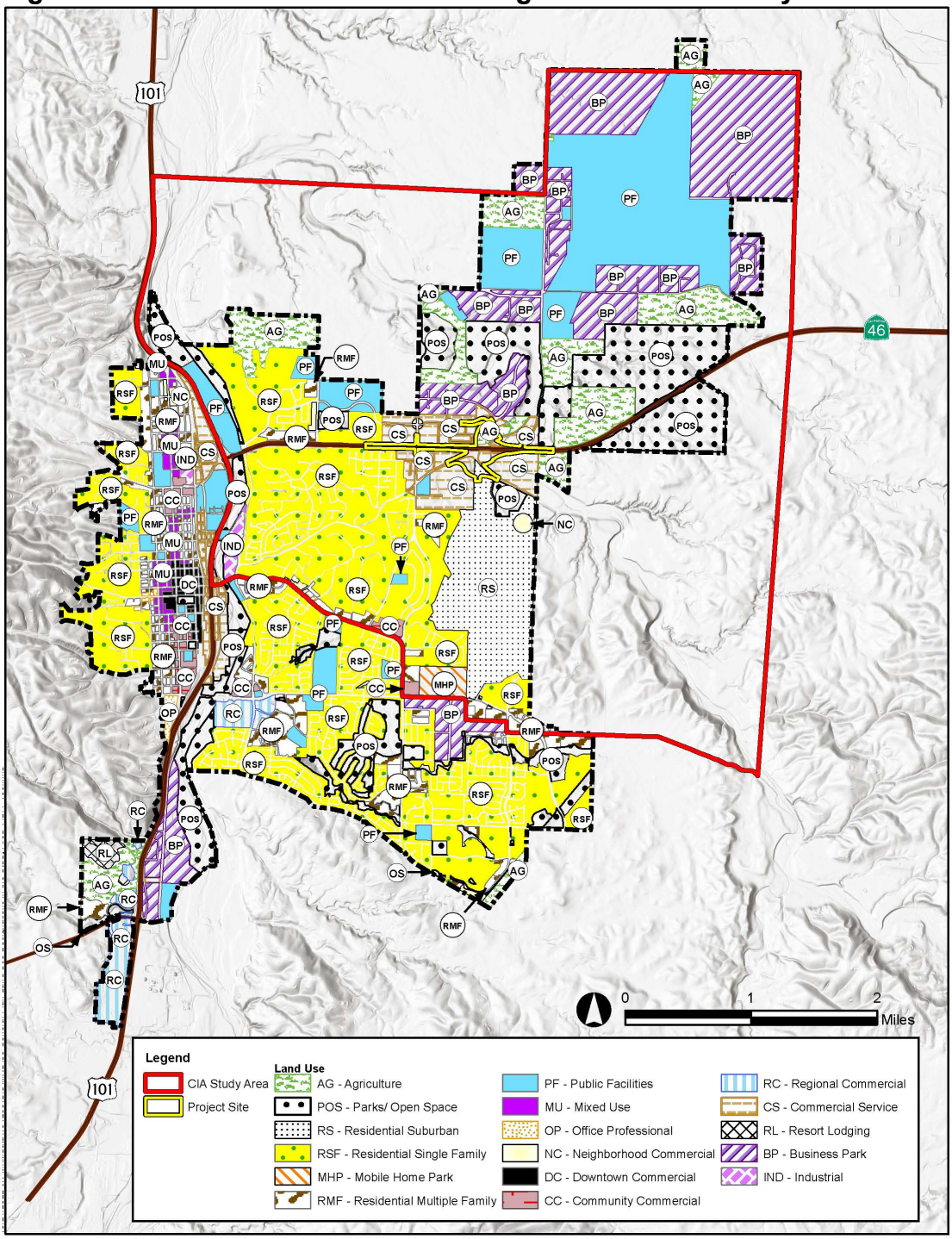
Table 2.1 Study Area General Plan Land Use Designations

North of Project Site	East of Project Site	South of Project Site	West of Project Site
Agriculture, Business Park, Commercial Service, Public Facilities, and Parks and Open Space	Agriculture, Commercial Service, Sphere of Influence area	Community Commercial, Commercial Service, Mobile Home Park, Neighborhood Commercial, Office Professional, Public Facilities, Parks and Open Space, Residential Multiple Family, Residential Single-Family, Residential Suburban, Olsen-South Chandler Ranch Specific Plan	Agriculture, Commercial Service, Neighborhood Commercial, Public Facilities, Parks and Open Space, Residential Multiple Family, Residential Single-Family, Borkey Area Specific Plan, and Union/46 Specific Plan

Sources: City of Paso Robles General Plan Land Use Diagram/Circulation Diagram, September 13, 2018. City of Paso Robles Specific Plan Areas Map, September 13, 2018.

According to the general plan, the City's vision is to maintain and enhance the City's small-town character while strengthening the City's economic base. Population growth in the City has been moderate in the last decade, increasing by approximately 9.8 percent, from a total of 28,794 residents in 2010 to approximately 31,490 residents in 2020 (the most recent data available: U.S. Census Bureau website, https://data.census.gov/cedsci/ accessed February 23, 2022, and September 29, 2022). In the same time period since 2007, the City reported a total of 647 new dwelling units constructed. As a basis of comparison, growth rates in nearby communities within the Central Coast area have been somewhat less than those of Paso Robles. The population in the City of Atascadero (located about 13 miles to the south) increased by approximately 8.8 percent, from a total of 27,981 residents in 2010 to 30,444 residents in 2020. The population in the City of Arroyo Grande (located about 47 miles to the south) increased by approximately 5.5 percent, from a total of 16,990 residents in 2010 to 17,924 residents in 2020. San Luis Obispo County saw an overall population increase of approximately 6.4 percent, from a total of 265,577 residents in 2010 to 282,517 residents in 2020. Statewide, the population of California increased by approximately 7.4 percent from a total of 36,637,290 in 2010 to 39,346,023 in 2020.

Figure 2-2 General Plan Land Use Designations in the Study Area



Future growth projections through the 2025 planning horizon year indicate similar growth patterns, with the population estimated to be 34,400 residents in 2025, an increase of approximately 9.5 percent (City of Paso Robles website, https://www.prcity.com/244/demographics, accessed September 10, 2019). Based on the pace of development activity at the time of the General Plan Land Use Element Update in 2014, it was anticipated that residential build-out of the City, resulting in a population of 44,000, would occur by 2025. However, the national economic slowdown that began in 2007, coupled with the history of periodic slowdowns over prior decades, has caused the City to consider that build-out and an attendant population of 44,000 may take more than 20 additional years (to 2045 or longer) to attain. Of note, the 9.8 percent population growth in Paso Robles from 2010 to 2020 discussed above is only slightly higher than the 9.5 percent growth that is projected to occur through 2025.

Recent development trends in the City include the design and implementation of multiple specific plans, as well as commercial and public facilities and infrastructure that would be necessary to support the additional population that would result from the implementation of these specific plans. In addition, in the Paso Robles area and San Luis Obispo County as a whole, the vineyard industry has experienced growth over the past 20 years. In 1977, the total planted wine grape acreage in San Luis Obispo County was approximately 4,000 acres. Currently, in the Paso Robles area alone, approximately 17,500 acres are planted with wine grapes (City of Paso Robles General Plan Open Space Element, p. OS-3).

There are several specific plans in the study area, only three of which have been adopted by the City, including the following: Borkey Area Specific Plan located north of State Route 46, Union/46 Specific Plan, and Olsen-South Chandler Ranch Specific Plan, located south of State Route 46. Residents within these specific plan areas would potentially use the proposed interchange at State Route 46/Union Road once constructed. Approved land development and transportation infrastructure projects under consideration by the City are listed in Table 2.2, Approved Planned Projects, and are identified in Figure 2-3.

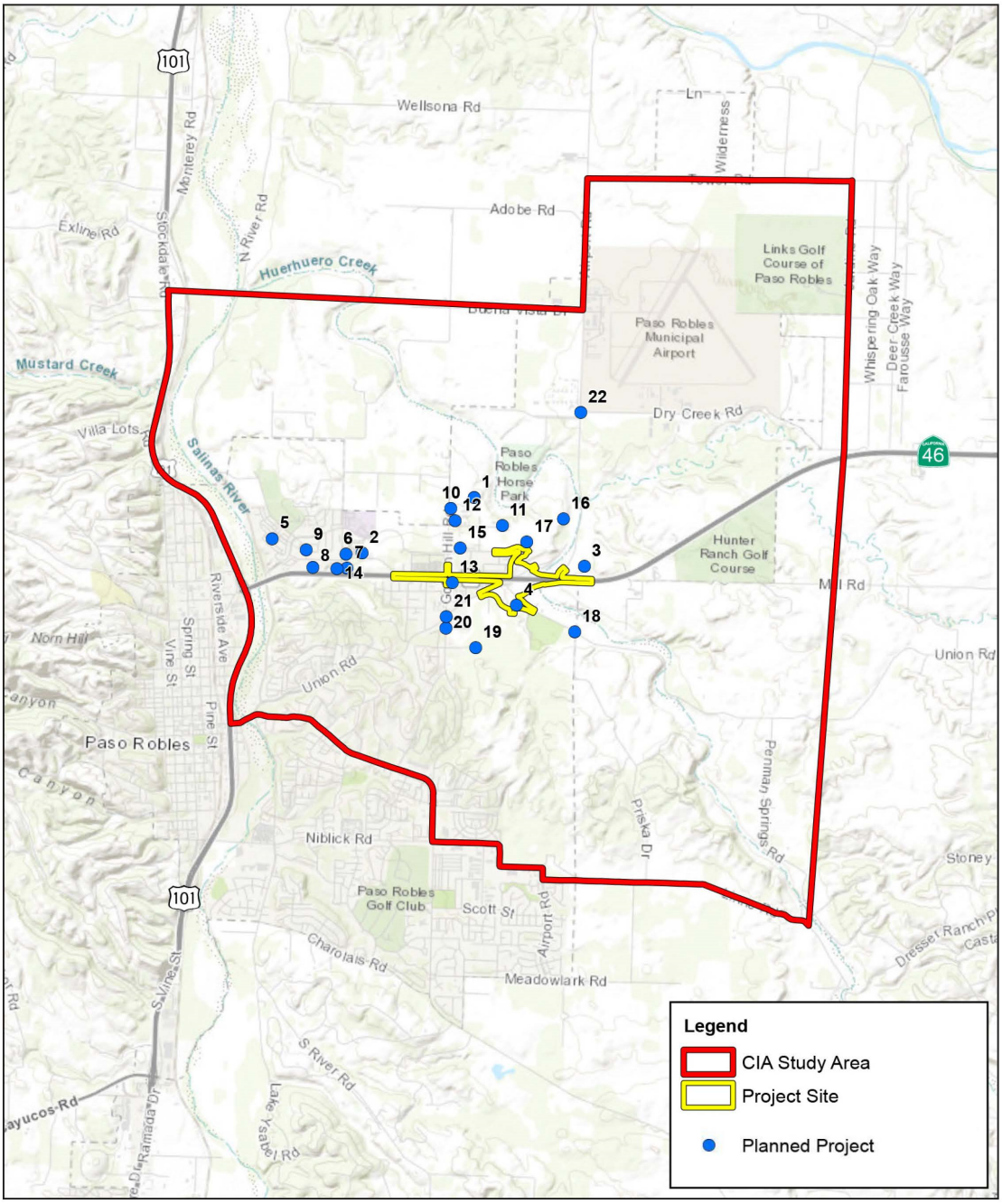
Table 2.2 Approved Planned Projects

Map ID	Project Name	Project Description	Location	Status
1	Erskine (Wisteria Lane) Industrial Development	466,900-square-foot manufacturing use and 183,200-square-foot business park	North of the State Route 46 corridor, at the east end of Wisteria Lane and west of Airport Road.	Under construction
2	Destino Paso Resort Hotels	Four separate hotels built in phases on a 40.3-acre site	East of Airport Road (north of State Route 46)	Proposed
3	Wine Country Recreational Vehicle Resort	Resort, including 162 recreational vehicle spaces	East of Airport Road	Built
4	Fairfield Inn (formerly known as Residence Inn by Marriott)	120-room hotel	Southeast corner of Union Road/Union Road Connector	Proposed
5	River Oaks Residential Community	144 adult detached units, 127 single-family units, 5,000-square-foot community center, and 5,000-square-foot fitness/wellness center	North of River Oaks Drive and east of River Road	Under construction
6	Ayres Hotel	190 hotel rooms, 36 extended stay units, and related amenities	Northeast corner of Buena Vista and Experimental Station Road	Built
7	La Quinta Inn and Suites by Wyndham	30 additional hotel rooms and related amenities	2615 Buena Vista Drive	Built
8	Buena Vista Apartments	142 apartment units	802 Experimental Station Road	Built
9	Tract 2887	51 single-family homes	Southeast corner of River Oaks Drive and Experimental Station Road	Built
10	Recreational Vehicle Park	332 recreational vehicle spaces	North end of Golden Hill Road	Built
11	Wine Storage Building	66,000-square-foot facility	2261 Wisteria Lane	Built
12	San Antonio Winery Processing Facility	126,000-square-foot facility	Wisteria Lane	Built
13	Hilton Garden Inn	166 hotel rooms and related amenities	2348 Golden Hill Road	Expired
14	San Antonio Winery Development	Tasting room, restaurant, four residences, and retail in addition to existing facilities	2610 Buena Vista Drive	Built
15	Chrysler/Dodge/ Jeep/Ram Dealership	29,800-square-foot facility	Northeast corner of Golden Hill Road and Tractor Street	Built

Map ID	Project Name	Project Description	Location	Status
16	Union Road Extension	Union Road would be extended north as an arterial facility from State Route 46/Union Road intersection to connect to Airport Road at/near or south of the existing Airport Road/Dry Creek Road intersection.	Between the State Route 46/Union Road intersection to the south and the Airport Road/Dry Creek Road intersection to the north	Proposed
17	Wisteria Lane Extension	Wisteria Lane would be extended eastward as a two-lane divided arterial to intersect with the future Union Road Extension.	Between the eastern terminus of Wisteria Lane and Union Road Extension	Under construction
18	Airport Road (South) Extension	A new roadway referred to as "Airport Road South Extension" would be constructed as a two-lane divided arterial, extending south from Union Road (from an intersection at/near the eastern limits of the City of Paso Robles) to connect with the southeastern portion of the City	Airport Road, from Union Road (from an intersection at/near the eastern limits of the City of Paso Robles) to the southeastern portion of the City	Proposed
19	Gilead Lane Extension	Gilead Lane would be extended eastward as a two-lane divided arterial that intersects with Airport Road South Extension.	Between the eastern terminus of Gilead Lane and the Airport Road South Extension	Proposed
20	Golden Hills Road Widening	Golden Hill Road is planned for long-range widening to four lanes between State Route 46 and Rolling Hills Road.	Along Golden Hill Road, between State Route 46 and Rolling Hills Road	Proposed
21	Roundabout at Union Road/Golden Hill Road	A two-lane roundabout is planned to be constructed at the Union Road/Golden Hill Road intersection.	Union Road/Golden Hill Road intersection	Under construction
22	Airport Road/Dry Creek Road Intersection Improvements	The intersection is planned for future widening to add left-turn lanes and signalization.	Airport Road/Dry Creek Road intersection	Proposed

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Figure 2-3 Approved Planned Projects



Environmental Consequences

No-Build Alternative

No impacts regarding existing and future land uses would occur with the implementation of the No-Build Alternative since no construction activity or permanent land use changes would occur with this alternative. In addition, the No-Build Alternative is not consistent with the City's General Plan for future land uses.

Build Alternative (Phases 1 and 2)

Permanent land use impacts that would occur under both Phase 1 and Phase 2 of the project include the conversion of existing land uses to transportation uses since the acquisition of small portions of parcels along Union Road and State Route 46 would be required. Tables 2.9 through 2.12 in Section 2.1.7, Relocations and Real Property Acquisition, indicate proposed temporary and permanent right-of-way requirements for both Phase 1 and Phase 2 of the project.

While right-of-way acquisition would be required, conversion of these residential, commercial, vacant, and agricultural uses to a roadway use would not trigger a new land use that would require an amendment to the City's General Plan Land Use Element because a grade-separated interchange is already specifically identified as a future roadway project in the General Plan Circulation Element and other local plans. As described further below, the project would not construct any housing or induce growth resulting in an exceedance of the City's population planning threshold. Additionally, Figure CE-1, Circulation Element Master Plan Map, in the Circulation Element of the General Plan, shows the City's intended future roadway network, which includes a grade-separated interchange at the State Route 46/Union Road interchange. As such, the project would be consistent with existing and future land uses identified in the General Plan.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures would be required.

2.1.2 Consistency with State, Regional, and Local Plans and Programs

Affected Environment

San Luis Obispo Council of Governments' 2019 Regional Transportation Plan: Regional Transportation Plan Connecting Communities

The Regional Transportation Plan, which is prepared by the San Luis Obispo Council of Governments, is a long-range plan that identifies multimodal regional transportation needs and investments over the next 25 years. The Regional Transportation Plan provides a vision for transportation investments in public transportation, active transportation, highways, streets, and roads, and system efficiency throughout the San Luis Obispo Council of

Governments' region. Improvements to the Union Road and State Route 46 intersection, such as a Union Road Overcrossing/Extension, are specifically identified within the 2019 Regional Transportation Plan.

San Luis Obispo Council of Governments' 2021 Federal Transportation Improvement Plan

The Federal Transportation Improvement Plan is the document prepared by a metropolitan planning organization (San Luis Obispo Council of Governments, in the case of San Luis Obispo County) that lists projects to be funded with Federal Highway Administration and Federal Transit Administration funds for the next 1-to-4-year period (2020/2021 through 2023/2024). The Federal Transportation Improvement Plan is the process by which the Regional Transportation Plan and Sustainable Communities Strategy are implemented. It does so by providing an orderly allocation of federal, state, and local funds for use in planning and building specific projects.

The San Luis Obispo Council of Governments' 2021 Federal Transportation Improvement Plan is a comprehensive listing of the San Luis Obispo County region's surface transportation projects that receive federal funds or are subject to a federally required action or are regionally significant. San Luis Obispo Council of Governments prepares and adopts the Federal Transportation Improvement Plan every 2 years. Improvements to the Union Road and State Route 46 intersection, including the Union Road Overcrossing/Extension, are specifically identified within the 2021 Federal Transportation Improvement Plan with the project identification numbers and descriptions below.

- Metropolitan Planning Organization Identification: 22300000695, Planning and Programming Number: 2528, Expenditure Authorization Number: 1C1500–46E-Union Road Improvements: On State Route 46 in San Luis Obispo County between Golden Hill Road, 0.5 mile west of Union Road-Paso Robles Boulevard and Mill Road, 0.5 mile east of Union Road-Paso Robles Boulevard, construct intersection improvements (Phase 1 Overcrossing-north/south access over State Route 46; Phase 2 ramp construction).

State Route 46 Corridor System Management Plan

The objectives of the State Route 46 Corridor System Management Plan, created by Caltrans, are to improve the safety of the transportation system, reduce travel time or delays, reduce traffic congestion, improve connectivity, improve travel time reliability, and expand mobility options. The Corridor System Management Plan does this by recommending management strategies over a 20-year time frame, such as developing parallel road networks to reduce local traffic on State Route 46, expanding facilities, upgrading intersections, improving operations, and providing viable transportation options for motorized and nonmotorized users. Union Road is

identified in the Corridor System Management Plan as a high-priority location for mobility improvements.

City of Paso Robles General Plan

The City of Paso Robles' General Plan was adopted on December 16, 2003, and it establishes a comprehensive framework through which the City manages its physical and economic resources.

Circulation Element: In the City's General Plan Circulation Element, State Route 46 is designated as an existing four-lane expressway, and Union Road is designated as a proposed two-lane divided arterial. The Circulation Element also identifies the State Route 46/Union Road intersection as the location of a planned intersection improvement, which would respond to changing land uses and projected future land use modifications. The Circulation Element specifically identifies State Route 46 East, between U.S. Route 101 and Airport Road, as an area where future traffic volumes are expected to exceed the roadway's capacity. As such, the Circulation Element provides recommendations to alleviate traffic congestion in this area, including a grade-separated interchange as proposed under the State Route 46 East/Union Road Intersection Improvements. The Circulation Element further states that widening State Route 46 would compromise the City's goals of small-town character and mobility associated with nonautomotive uses.

City of Paso Robles Bicycle and Pedestrian Master Plan

A few portions of Union Road, located onsite between Union Road Connector and Golden Hills Road, and a portion bordering the northern side of Barney Schwartz Park, are designated by the City's Bicycle and Pedestrian Master Plan (adopted December 18, 2018) as a Class 2 bike lane. Additionally, Class 2 bike lanes are near the project site, along Golden Hill Road and Tractor Street/Dallons Drive (north of State Route 46) and along Union Road, Golden Hill Road, and Montebello Oaks Drive (south of State Route 46). A Class 1 bike path is north of State Route 46, parallel to Golden Hill Road. Additional Class 1 bike paths can be accessed from Arciero Court (approximately 545 feet north of the Montebello Oaks Drive/Arciero Court) and from Union Road (approximately 360 feet north of the Montebello Oaks Drive/Union Road intersection). A Class 3 bike route is designated along Walnut Drive.

Environmental Consequences

No-Build Alternative

The No-Build Alternative is not consistent with most of the applicable state, regional, and local plans and programs outlined above. A determination of project consistency with goals and policies is provided in Table 2.3 below. As shown in Table 2.3, the No-Build Alternative would be inconsistent with all of the applicable state, regional, and local plans and programs described herein.

Build Alternative (Phases 1 and 2)

A determination of project consistency with goals and policies included in the applicable state, regional, and local plans and programs outlined above is provided in Table 2.3 below. As shown in Table 2.3, both Phase 1 and Phase 2 of the Build Alternative would be consistent with all applicable state, regional, and local plans and programs. Agricultural land use designations and zoning consistency are discussed in Section 2.1.4, Farmland.

Table 2.3 Consistency With State, Regional, and Local Plans and Programs

Plan	Goals/Policies	No-Build Alternative	Build Alternative
City of Paso Robles General Plan Circulation Element	Goal CE-1: Establish a safe, balanced, efficient, and multimodal circulation system, focusing on the mobility of people and preserving the City's small-town character and quality of life. Action Item 12: The City would coordinate with Caltrans on the planning and implementation of congestion management strategies on State Route 46 East, State Route 46 West, and U.S. Route 101. These strategies would include improved connectivity for all modes of transportation across these corridors and in areas on either side of these facilities. The City and Caltrans would work in concert with the most recent Regional Transportation Plan and corridor studies. Action Item 16: View all transportation improvements, new or retrofit, as opportunities to improve safety, access, and mobility for all travelers and recognize bicycle, pedestrian, and transit modes as integral elements of the transportation system.	Inconsistent. Because the No-Build Alternative would not construct roadway improvements as proposed under the project, the existing configuration and traffic operations would remain. This alternative would not improve access, mobility, or connectivity for bicycles and pedestrians. Therefore, this alternative would not be consistent with Goal CE-1 or Action Items 12 and 16.	Consistent. Because the Build Alternative would construct roadway improvements as described in the Regional Transportation Plan, the existing traffic operations and overall mobility would be improved, as envisioned in the General Plan Circulation Element. Therefore, the Build Alternative would be consistent with Goal CE-1 and action items 12 and 16.

Plan	Goals/Policies	No-Build Alternative	Build Alternative
City of Paso Robles Bicycle and Pedestrian Master Plan	Goal 2: Develop bicycle and pedestrian facilities that are accessible to commercial and employment centers, neighborhoods, parks, and schools to provide a viable alternative for transportation to reduce vehicle miles traveled and traffic congestion. Goal 4: Develop bicycle and pedestrian facilities that would meet both commuter and recreation needs, including bicycle support facilities once they meet their destinations.	Inconsistent. Because the No-Build Alternative would not construct bike lanes or sidewalks on Union Road as proposed under the project, the existing physical barriers to walking and bicycling between and within neighborhoods would remain, and connectivity would not be enhanced. Therefore, this alternative would not be consistent with the Bicycle and Pedestrian Master Plan.	Consistent. Because the Build Alternative would construct new bike lanes and sidewalks on Union Road where none currently exist, the existing physical barriers to walking and bicycling between and within neighborhoods would be reduced, and connectivity would be enhanced, as envisioned in the Bicycle and Pedestrian Master Plan. Therefore, the Build Alternative would be consistent with the Bicycle and Pedestrian Master Plan.
San Luis Obispo Council of Governments' 2019 Regional Transportation Plan	NTH-HWY-1001 State Route 46 East/Union Road improvements (Phase 1): Construct Phase 1 improvements: overcrossing and parallel route connector. NTH-MHWY-1003 State Route 46 East/Union Road improvements (Phase 2)-Construct Phase 2 improvements: new interchange.	Inconsistent. The No-Build Alternative would not be consistent with the San Luis Obispo Council of Governments' 2019 Regional Transportation Plan since the transportation improvements that would be provided by the project would not be constructed under the No-Build Alternative.	Consistent. The project is included in the San Luis Obispo Council of Governments' 2019 Regional Transportation Plan as Regional Transportation Plan identification numbers NTH-HWY-1001 (Phase 1) and NTH-MHWY-1003 (Phase 2). As such, the Build Alternative would be consistent with the San Luis Obispo Council of Governments' 2019 Regional Transportation Plan.

Plan	Goals/Policies	No-Build Alternative	Build Alternative
State Route 46 Corridor System Management Plan	The objectives of the State Route 46 Corridor System Management Plan are to improve operations of the transportation system; reduce travel time or delays; reduce traffic congestion; improve connectivity; improve travel time reliability; and expand mobility options.	Inconsistent. Because the No-Build Alternative would not construct roadway improvements as proposed under the project, the existing configuration and traffic operations would remain. This alternative would not improve the operational deficiencies described in the Corridor System Management Plan. Therefore, this alternative would not be consistent with the Corridor System Management Plan.	Consistent. Because the project would improve portions of roadways identified in the Corridor System Management Plan as state system priorities, the Build Alternative would be consistent with the Corridor System Management Plan.

Source: Michael Baker International, State Route 46 East/Union Road Intersection Improvements Community Impact Assessment, May 2023.

Since improvements to the Union Road and State Route 46 intersection, such as a Union Road Overcrossing/Extension, are specifically identified within the 2019 Regional Transportation Plan and the 2021 Federal Transportation Improvement Plan, the Build Alternative would be consistent with regional and federal transportation plans. Because the proposed project would improve the parallel street network around State Route 46 and improve connectivity, it is consistent with the State Route 46 Corridor System Management Plan.

The Build Alternative would improve traffic operations through the construction of a grade-separated interchange and would not widen State Route 46. Therefore, it would not affect the roadway designations and would be consistent with recommendations contained within the City's Circulation Element. Although a portion of the project site would occur along Union Road, the Build Alternative would not affect the bicycle routes and would be consistent with the City's Bicycle and Pedestrian Master Plan.

Refer to Section 2.1.6, Growth, for information pertaining to growth-related effects.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures would be required.

2.1.3 Parks and Recreational Facilities

Regulatory Setting

The Park Preservation Act (California Public Resources Code Sections 5400-5409) prohibits local and state agencies from acquiring any property that is in use as a public park at the time of acquisition unless the acquiring agency pays sufficient compensation or land, or both, to enable the operator of the park to replace the parkland and any park facilities on that land.

Affected Environment

This section is based on the May 2023 Community Impact Assessment and the Section 4(f): De Minimis Determination(s) and Resources Evaluated Relative to the Requirements of Section 4(f): No Use (provided as Appendix A of this Initial Study/Environmental Assessment) that was prepared for the proposed project.

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 U.S. Code 303, declares that “it is the policy of the U.S. Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

The project area for parks and recreational facilities is comprised of the project site and a 0.5-mile radius; refer to Figure A-1a, Resources Evaluated Relative to the Requirements of Section 4(f) (provided in Appendix A of this Initial Study/Environmental Assessment). Two publicly owned recreational facilities in the project area are subject to the provisions of Section 4(f), described below:

- Almendra Court Trail is a 0.17-mile paved trail that starts at Crown Way or Union Road and is approximately 0.43-mile south of the project site.
- Barney Schwartz Park (designated in the City of Paso Robles' General Plan as a “regional park”) is at 2970 Union Road, approximately 0.25 mile southeast of the project site. This 40-acre park includes baseball diamonds, two concession stands, soccer fields, two group pavilions, a lake, a walking trail, and restrooms. Four parking lots are provided at the western and northern portions of the park, and street parking is provided along eastbound Union Road north of the park. Access to the park is provided via two driveways along Union Road. The driveway at the northwestern corner of the park provides access to three of the parking lots. The driveway at the north/central portion of the park provides access to the fourth parking lot.

Based on the U.S. Department of Transportation Federal Highway Administration, Environmental Review Toolkit (https://www.environment.fhwa.dot.gov/env_topics/4f_tutorial/default.aspx), there are three main types of use:

- Permanent Incorporation: This type of use involves a right-of-way acquisition of Section 4(f) land as part of a transportation project. In other words, the transportation agency or project sponsor directly purchases the property (fee simple acquisition), and the property sustains a permanent impact—typically changing from Section 4(f) property to a transportation facility.
- Temporary Occupancy: During the construction of a highway project, temporary occupancy of a Section 4(f) property may be necessary for activities such as regrading slopes or providing staging or access areas.
- Constructive Use (proximity impacts): Constructive use involves an indirect impact to the Section 4(f) property of such magnitude as to effectively act as a permanent incorporation. Constructive use may include impacts such as noise, access restrictions, vibration, ecological intrusions, and visual impacts.

Environmental Consequences

No-Build Alternative

No temporary or permanent impacts regarding parks and recreational facilities would occur with the implementation of the No-Build Alternative since no construction activity or permanent changes would occur with this alternative.

Build Alternative (Phases 1 and 2)

Almendra Court Trail

The Build Alternative's facilities and construction activities would not use the trail facility. The Build Alternative would not permanently incorporate or temporarily occupy any portion of the trail. In addition, the Build Alternative would have no constructive use effects (in other words, "proximity" impacts) that would substantially impair the activities, features, and/or attributes that qualify this facility for protection under Section 4(f). This conclusion is based on the following:

- Access: The Almendra Court Trail can be accessed via Union Road, Crown Way, and the surrounding roadway system. Although the Build Alternative proposes a realignment of Union Road northeast of Almendra Court Trail, access to the trail would remain uninterrupted during construction and operation. The Build Alternative would not include any temporary or permanent improvements or activities that would have the capacity to alter or impede access to the trail facility.
- Visual/Aesthetics: The Build Alternative is not expected to include any features that would be tall enough to be visible from the trail or that would substantively alter views from the park trail due to the existing rolling topography, intervening structures, and mature trees that surround the trail. Thus, the Build Alternative would not result in adverse proximity effects to the Almendra Court Trail.

- Water Quality: The Build Alternative would not have the potential to adversely affect water quality at the trail facility. No stormwater drainage or runoff from the Build Alternative site would encroach or enter onto the trail, and adverse proximity impacts would not occur under the Build Alternative.
- Air Quality: As noted in Section 2.2.6, Air Quality, of this Initial Study/Environmental Assessment, the Build Alternative would have minimal adverse effects on sensitive receptors related to short-term construction or long-term operational pollutant emissions upon adherence to standardized construction specifications and requirements intended to reduce equipment emissions and fugitive dust. Thus, the Build Alternative would have minimal proximity effects related to air quality on the Almendra Court Trail.
- Noise: As described in Section 2.2.7, Noise, of this Initial Study/Environmental Assessment, the Build Alternative would have minimal adverse effects on surrounding uses related to short-term construction or long-term operational noise upon adherence to Caltrans' Standard Specifications. Additionally, intervening structures and rolling terrain would serve as a buffer between trail users and the Build Alternative site. Thus, the Build Alternative would have minimal proximity effects related to noise on the Almendra Court Trail.
- Biological Environment: Within the Build Alternative area, the Almendra Court Trail is paved along with primarily ornamental vegetation north and south of the trail. Given the lack of natural habitat and the level of human activity/disturbance on a daily basis, sensitive natural communities or species are not expected to exist. Additionally, there would be no construction within the trail, and no disturbance of any vegetation associated with the trail would occur. As noted above, the Build Alternative is not expected to result in adverse effects related to air quality or noise that could otherwise result in proximity effects to biological resources at the facility.

The trail is a Section 4(f) resource, but no "use" would occur. Based on the Section 4(f) Policy Paper, prepared by the U.S. Department of Transportation Federal Highway Administration, Office of Planning, Environment, and Realty, Project Development and Environmental Review, Washington DC 20590, and dated July 20, 2012, a project that is next to a Section 4(f) property, causing only minor proximity impacts to the Section 4(f) property, the provisions of Section 4(f) do not apply, and the project would result in no constructive use of the Section 4(f) property.

Barney Schwartz Park

The Build Alternative would include realignment of the Barney Schwartz Park northwestern driveway to accommodate the new roundabout configuration proposed south of the new State Route 46 East/Union Road interchange. Realigning the driveway would include realigning the sidewalk and curb and

gutter to tie in with the existing Union Road alignment, removing the existing center median within the driveway, removing landscaping within the parking lot, and restriping the parking lot to update the parking configuration in the northwestern parking lot. The project would remove 11 parking spots in the northwestern parking lot.

Improvements to the northwest driveway would take up to six weeks to finish. The northwest driveway/access point would be restored to pre-project conditions upon completion of the construction process, and the provision of sidewalks through the interchange is anticipated to result in beneficial recreational impacts over the long term. Short-term impacts to park operations are considered minimal and would not impair existing activities, features, or attributes of the existing park facility.

The Build Alternative would result in the temporary occupancy of the Section 4(f) resource. Minimization Measure Parks and Recreation-1 would reduce potential short-term construction-related impacts at the northwest driveway of Barney Schwartz Park by incorporating a stage construction approach, where only half of the driveway improvements would occur at a single time. While half of the driveway is being modified to accommodate project improvements, the other half will remain open for recreational access. The project would not impact the second driveway along Union Road. As such, park access from Union Road would be maintained at all times. With the implementation of Minimization Measure Parks and Recreation-1, effects related to the activities, features, and attributes of Barney Schwartz Park would not be adverse, and a *de minimis* use would occur. A *de minimis* impact involves the use of Section 4(f) property that is generally minor in nature and does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f). The City of Paso Robles Department of Community Services concurred with this finding in a letter dated November 2, 2021.

Avoidance, Minimization, and/or Mitigation Measures

The following minimization measure would be implemented to protect parks and recreational facilities.

- **Parks and Recreation-1:** To minimize construction impacts at the northwest driveway of Barney Schwartz Park, the Build Alternative would incorporate a stage construction approach, where only half of the driveway improvements would occur at a time. While half of the driveway is being modified to accommodate project improvements, the other half will remain open for recreational access.

2.1.4 Farmland

Regulatory Setting

The National Environmental Policy Act and the Farmland Protection Policy Act (Farmland Protection Policy Act, 7 U.S. Code 4201-4209; and its regulations, 7 Code of Federal Regulations Part 658) require federal agencies, such as the Federal Highway Administration, to coordinate with the Natural Resources Conservation Service if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the Farmland Protection Policy Act, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

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

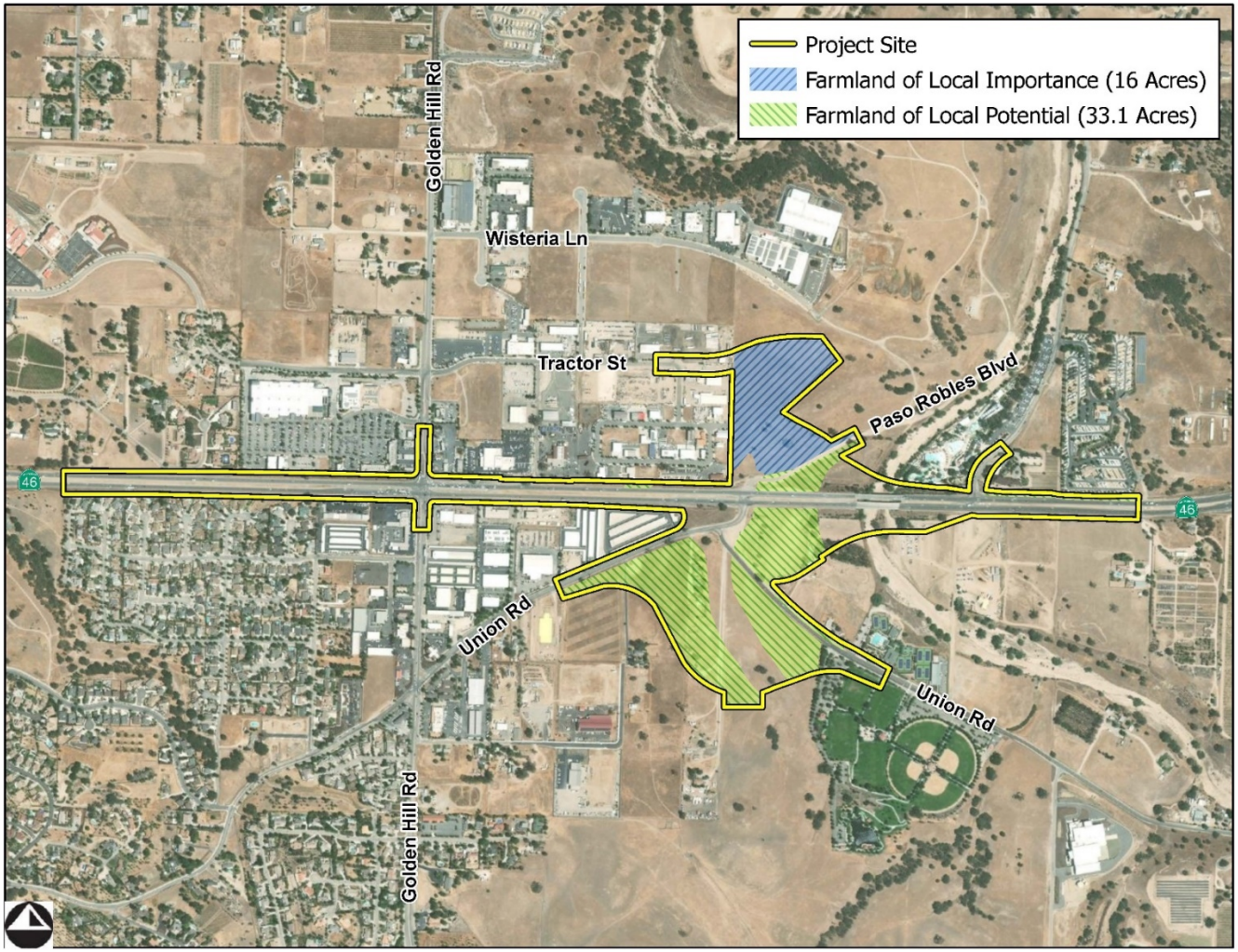
Affected Environment

Information in this section is based on the May 2023 Community Impact Assessment that was prepared for the proposed project.

Based on the California Department of Conservation, San Luis Obispo County 2016-2018 Land Use Conversion table (Table A-31), 41,070 acres of Prime Farmland (net decrease of 119 acres from the 2016 inventory), 45,718 acres of Unique Farmland (net increase of 543 acres from the 2016 inventory), 23,202 acres of Farmland of Statewide Importance (net increase of 504 acres from the 2016 inventory), and 285,392 acres of Farmland of Local Importance (net decrease of 2,643 acres from the 2016 inventory), for a total of 395,382 acres of important farmland (total net decrease of 1,715 acres from the 2016 inventory) was inventoried in the County of San Luis Obispo in 2018 (https://www.conservation.ca.gov/dlrp/fmmp/Pages/SanLuisObispo.aspx).

Portions of the project site have been designated by the California Department of Conservation as “Farmland of Local Importance” and “Farmland of Local Potential.” The northwestern corner of State Route 46 East and Paso Robles Boulevard is designated as “Farmland of Local Importance.” Areas that are north and south of State Route 46 (specifically, parcels east of the State Route 46 and Paso Robles Boulevard/Union Road intersection) are designated as “Farmland of Local Potential.” Figure 2-4, Important Farmland Map, shows the location of important farmland in relation to the project area.

Figure 2-4 Important Farmland Map



Designated important farmland and farmland under Williamson Act contracts are not currently being cultivated. Based on the historic aerials of the project site, it appears that the land has not been farmed within the last 10 years. In addition, based on the California Important Farmland Finder, prepared by the California Department of Conservation, approximately 73 percent of the land within the project site is for nonurban use within a radius of approximately 1 mile of the project site.

According to the General Plan Land Use Element (Table LU-2, "General Plan Land Use Distribution"), the Agriculture land use category accounts for 7.3 percent (814 acres) of land in the City. To preserve farmland within San Luis Obispo County, several programs have been adopted, including the widespread use of the California Land Conservation Act (the Williamson Act) to provide tax rate benefits as an incentive for maintaining agriculture (note that there are no Williamson Act contract lands within the project area), and the establishment of the "Purple Belt" (Open Space/Conservation Areas Around the City), which is intended to retain rural, open space, and agricultural areas in the City.

Environmental Consequences

Temporary Impacts

No-Build Alternative

Since no construction or physical changes to the environment would occur under the No-Build Alternative, no conversion of farmland would result; therefore, no temporary impacts would occur under this alternative.

Build Alternative (Phases 1 and 2)

Potential impacts to farmland associated with Phase 1 and Phase 2 construction and operation of the Build Alternative are considered permanent. Refer to the Permanent Impacts section below.

Permanent Impacts

No-Build Alternative

There would be no permanent impacts under the No-Build Alternative since no farmland conversion would occur.

Build Alternative (Phases 1 and 2)

The project is subject to the Farmland Protection Policy Act, 7 U.S. Code 4201-4209, and its regulations, 7 Code of Federal Regulations Part 658). The Farmland Protection Policy Act requires Federal agencies to "…coordinate with the Natural Resources Conservation Service to examine the effects of farmland conversion…" before they approve any activity that would convert farmland. To determine permanent farmland impacts in the study area, per the Farmland Protection Policy Act, a Farmland Conversion Impact Rating Form was completed for the Build Alternative.

Phase 1 of the Build Alternative would directly convert 49.1 acres of "Farmland of Local Importance" into the roadway; refer to Table 2.4 and Figure 2-4. It is not anticipated that the 49.1 acres of farmland conversion would result in the bisection of agricultural parcels, rendering the agricultural land unusable for cultivation. To avoid or reduce the conversion of farmland while meeting highway design standards, the design of project roadway tangents, circular curves, grades, and embankment slopes has been considered. A cut slope of a 2-to-1 ratio side slope was used at locations where there is deep excavation to reduce farmland conversion impacts. No additional farmland conversion would occur under Phase 2 of the Build Alternative. The Build Alternative would not impact any land designated as "Prime" or "Unique Farmland." According to the Farmland Protection Policy Act, Section 658.2, farmland does not include land already in or committed to urban development. The Build Alternative rated a score of 59 points on the land evaluation and site assessment portion of the Farmland Conversion Impact Rating Form. When the total points equal or exceed 160, it is expected that alternative actions would be considered that could reduce adverse impacts. As such, the Build Alternative would not exceed the 160-point threshold. Refer to Appendix G, Farmland Conversion Impact Rating Form.

Table 2.4 shows the data regarding farmland conversion associated with project implementation. San Luis Obispo County contains 288,127 acres of important farmland, meaning that the proposed project comprises a total of 0.013 percent of important farmland in San Luis Obispo County. According to the 2017 Census of Agriculture, there are a total of 41,953,833 acres of farmland statewide, meaning that the proposed project comprises a total of 0.00009 percent of farmland in California.

In addition, as a roadway project, the Build Alternative would not create new land use or development that would result in a zoning conflict that would cause the need for a zone change. Although the Build Alternative would provide the infrastructure to serve existing traffic demand and future planned growth, any future development project within designated agricultural areas of the City would be subject to a case-by-case zoning consistency review as part of its entitlement process.

The project would require the acquisition of agricultural land for nonagricultural use. Real property acquisition would be acquired per the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and property owners would receive just compensation and fair market value for their property. Due to the minor amount of farmland conversion that would occur under the Build Alternative, adverse effects on farmlands would not occur.

Table 2.4 Farmland Conversion by Alternative

Alternative	Land Converted (Acres)	Prime and Unique Farmland (Acres)	Farmland of Local Importance (Acres)	Percent of Farmland in County	Percent of Farmland in State	Farmland Conversion Impact Rating
Phase 1 of the Build Alternative	49.1	0	49.1	0.013 percent	0.00009 percent	59
Phase 2 of the Build Alternative	0	0	0	Not Applicable	Not Applicable	0

Source: Michael Baker International, State Route 46 East/Union Road Intersection Improvements Community Impact Assessment, May 2023.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures would be required.

2.1.5 Growth

Regulatory Setting

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

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

Methodology

According to Caltrans' guidance document titled Guidance for Preparers of Growth-Related, Indirect Impact Analyses (May 2006), the first step in determining whether a project could potentially influence growth and development is to perform a "first-cut screening." The "first-cut screening" process evaluates the potential for growth-related effects and whether further analysis would be required by addressing the following:

- How, if at all, does the project potentially change accessibility?
- How, if at all, does the project type, project location, and growth pressure potentially influence growth?

- Is project-related growth reasonably foreseeable as defined by the National Environmental Policy Act (under the National Environmental Policy Act, indirect impacts need only be evaluated if they are reasonably foreseeable as opposed to remote and speculative)?
- If there is project-related growth, how, if at all, will that affect resources of concern?

Figure 2-5, Analysis Considerations Related to Determining Potential for Project-Related Growth, below helps illustrate the relationship between project type, location and growth pressure, and the potential for project-related growth.

Figure 2-5 Analysis Considerations of Determining Potential for Project-Related Growth

Analysis Level	*Project Type*	*Project Location*	*Growth Pressure*
Further analysis is not likely	Typical CE-type activity (project on an existing facility and does not increase capacity or accessibility).	Urban: Typically low due to built-out urban setting and the costs associated with redevelopment. Rural: Typically low, particularly in areas that are remote from job and population centers and have experienced low levels of economic activity.	• Highly restrictive land use controls. • Lack of infrastructure to support growth. • High vacancy rates. • Low consumer demand.
Further analysis may be warranted	Capacity-increasing or new/expanded access improvements on an existing facility.	Suburban: Potential for infill development and redevelopment/densification of low density areas.	• Moderate consumer demand. • Moderate vacancy rates. • Presence of infrastructure to support growth.
Further analysis is clearly required	New facility on new alignment providing new access.	Urban/Suburban Fringe: Available undeveloped parcels near expanding urban or suburban areas are prime growth areas.	• High consumer demand. • Low vacancy rates. • Limited land use controls.

NO ↑ *Potential for project-related growth?* ↓ *YES*

Source: California Department of Transportation, Guidance for Preparers of Growth-Related, Indirect Impact Analyses (May 2006), pages 5-8, Figure 5-2.

How, if at All, Does the Project Potentially Change Accessibility?

The project generally proposes mainline, median, and ramp improvements along State Route 46 East (State Route 46); intersection improvements/modifications at State Route 46/Union Road, State Route 46/Golden Hill Road, and State Route 46/Airport Road; a new overcrossing

with a partial cloverleaf interchange; roadway extensions and realignments; and two roundabouts (one at the proposed extension of Tractor Street to the north and one at the proposed realignment of Union Road to the south). The project improvements include the construction of a new overcrossing over an existing facility (State Route 46), and the project intersection improvements are included in the General Plan Circulation Element. Although the improvements would be implemented on existing roadway facilities, they would increase local roadway capacity, enhance connections to State Route 46, and improve accessibility. Specifically, the project would provide improved access to approved development projects that are currently unconstructed. Improved access removes some of the burdens of developers, thus potentially facilitating the creation of jobs. Therefore, the proposed project is expected to result in a moderate change in accessibility.

How, if at All, Does the Project Type, Project Location, and Growth Pressure Potentially Influence Growth?

The project type is a combination of a new overcrossing and partial cloverleaf interchange, intersection improvements, roadway extensions and realignments, and new roundabouts. Since the project would construct a new overcrossing on existing facilities, the project type is considered to have a moderate potential to influence growth.

The project location is in the northeastern part of the City, where existing land uses in the area include predominately active agricultural, open space, commercial/business park, public facilities, and residential, with existing residential development that is characterized mainly as low-density single-family. The project intersection improvements are included in the General Plan Circulation Element, and as such, unplanned future development is not expected to occur with project implementation. Based on the planned land use designations (residential, commercial, retail, industrial, and recreational), projected growth for the area, and planned projects identified in the study area, planned growth in the study area is anticipated to occur whether or not the project is constructed. However, due to the enhanced accessibility that would occur with project implementation, project construction is anticipated to influence this planned growth in the study area since the enhanced accessibility could attract development to occur within the project vicinity. The project could also provide improved access to approved development projects that are currently unconstructed. Improved access removes some of the burdens of developers, thus potentially facilitating the creation of jobs. Therefore, the growth pressure within the study area is considered to be moderate.

Is Project-Related Growth Reasonably Foreseeable As Defined by the National Environmental Policy Act?

As discussed above, growth in the study area is anticipated to occur whether or not the project is constructed. The project would result in some

improvements in accessibility and the operational performance of project area roadways, which could influence the attractiveness of some areas to development over others. Table 2.2 identifies reasonably foreseeable development in the project vicinity. Planned project-related growth is reasonably foreseeable, as defined by the National Environmental Policy Act.

If There Is Project-Related Growth, How, if at All, Will That Affect Resources of Concern?

As discussed above, it is anticipated that the proposed project could influence growth. However, because this anticipated growth would be planned as envisioned in the City's General Plan, and would not result in any unplanned growth, no resources of concern would be affected. No further analysis related to growth would be required for the proposed project.

2.1.6 Community Character and Cohesion

Regulatory Setting

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

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

Affected Environment

This section is based on the May 2023 Community Impact Assessment that was prepared for the proposed project.

Community character is generally reflected by such demographic factors as average age, ethnicity, race, income, employment, household size, and population growth trends that are found within the study area, which is the same study area described in Section 2.1.1, Existing and Future Land Use, (refer to Figure 2-1, Community Impact Assessment Study Area). This data

provides a snapshot of residents living in the community and helps in developing a community profile so that the affected environment can be correctly described as it relates to communities and neighborhoods. A community profile is provided in this subsection, including a description of the populations residing within the study area and the existing housing stock within the study area.

Information from the U.S. Census Bureau was used to identify the demographic characteristics of the populations within the study area. Census Tract 102.07 was selected to be analyzed because its boundaries most closely align with the study area boundaries. The population within Census Tract 102.07 is 4,256 residents, representing approximately 13.5 percent of the City's total population.

Population Characteristics/Ethnic and Racial Composition (Including Elderly Persons, Disabled Persons, Transit-Dependent Individuals, and Minority Groups)

Table 2.5 shows general demographic information for the existing population within the study area census tract, the City, and San Luis Obispo County. As shown in Table 2.5, the study area census tract shares similar characteristics with the City, including average household size and median age.

Table 2.5 Regional, Local, and Study Area Demographics

Demographics	Census Tract 102.07	City of Paso Robles	San Luis Obispo County
Total Population (number of persons)	4,256	31,409	282,424
Average Household Size (number of persons)	2.65	2.61	2.51
Median Age (years)	38.8	38.7	39.2
Median Household Income (dollars)	$85,897	$62,601	$73,518
Low Income (percent)	7.0 percent	6.7 percent	6.1 percent

Source: U.S. Census Bureau, 2019 and 2020 American Community Survey 5-year estimates and 2020 Decennial Census Redistricting Data (PL 94-171), https://data.census.gov/cedsci/ accessed July 8, 2021, February 23, 2022, and October 3, 2022.

At the time the data were collected for Table 2.5, not all data sets were available for the 2020 Decennial Census. Accordingly, 2019 American Community Survey data were used for data sets in which this circumstance applied (average household size; median age; median household income; and low income). It should also be noted that the percentage of low income shown in Table 2.5 includes the percentage of families below the poverty level.

Table 2.6 identifies the ethnic characteristics of the existing population within the study area block groups, the City, and San Luis Obispo County (County). As shown in Table 2.6, the study area census tract has a similar ethnic and racial distribution to the regional City and County distribution for most

categories. The project area census tract White population is higher than the City and the County, whereas the Hispanic population is lower than the City and the County. It should be noted that the Hispanic and Latino population data are also counted within White, Black, and other races data; as a result, the columns total more than 100 percent.

Table 2.6 Ethnic and Racial Composition

Composition	Census Tract 102.07	City of Paso Robles	San Luis Obispo County
White Alone	74.3 percent	53.2 percent	65.0 percent
Black or African American Alone	1.5 percent	1.5 percent	1.5 percent
American Indian/Alaska Native Alone	0.6 percent	0.3 percent	0.4 percent
Asian Alone	2.7 percent	2.2 percent	3.5 percent
Native Hawaiian/Other Pacific Islander Alone	0.1 percent	0.2 percent	0.1 percent
Some Other Race Alone	7.6 percent	0.6 percent	0.6 percent
Two or More Races	13.1 percent	4.0 percent	4.8 percent
Hispanic or Latino (any race)	22.0 percent	38.0 percent	24.2 percent

Source: U.S. Census Bureau, 2019 and 2020 American Community Survey 5-year estimates and 2020 Decennial Census Redistricting Data (PL 94-171), https://data.census.gov/cedsci/ accessed July 8, 2021, February 23, 2022, and October 3, 2022.

Regarding elderly populations in the study area, according to U.S. Census data, the project area census tract does contain a proportionately higher level of elderly populations than surrounding localities. The total population aged 65 or older in Paso Robles is 18.1 percent, and in San Luis Obispo County overall, it is 21.5 percent. The percentage of persons aged 65 years and over within the project area census tract is 25.6 percent (higher than both the City and the County), whereas surrounding census tracts (102.02, 102.05, and 102.06) contain slightly lower levels of elderly populations, ranging from approximately 18.9 to 24.0 percent.

Regarding persons with disabilities in the study area, according to U.S. Census data, there are no concentrated areas of disabled populations in the study area. The total disabled population in Paso Robles is 12.3 percent, and in San Luis Obispo County overall, it is 14.8 percent. The project area census tract contains a disabled population of 10.5 percent (lower than the City and the County), whereas surrounding census tracts (102.02, 102.05, and 102.06) contain a similar or higher rate of persons with disabilities, ranging from approximately 8.8 to 16.4 percent.

Regarding transit-dependent individuals in the study area, according to U.S. Census data, there is not a large concentration of transit-dependent individuals in the study area. The percentage of people using public transportation in Paso Robles is 0.4 percent, and in San Luis Obispo County overall, it is 1.2 percent. The project area census tract contains a transit-dependent population of 0.1 percent (substantially lower than the City and the County), whereas surrounding census tracts (102.02, 102.05, and 102.06)

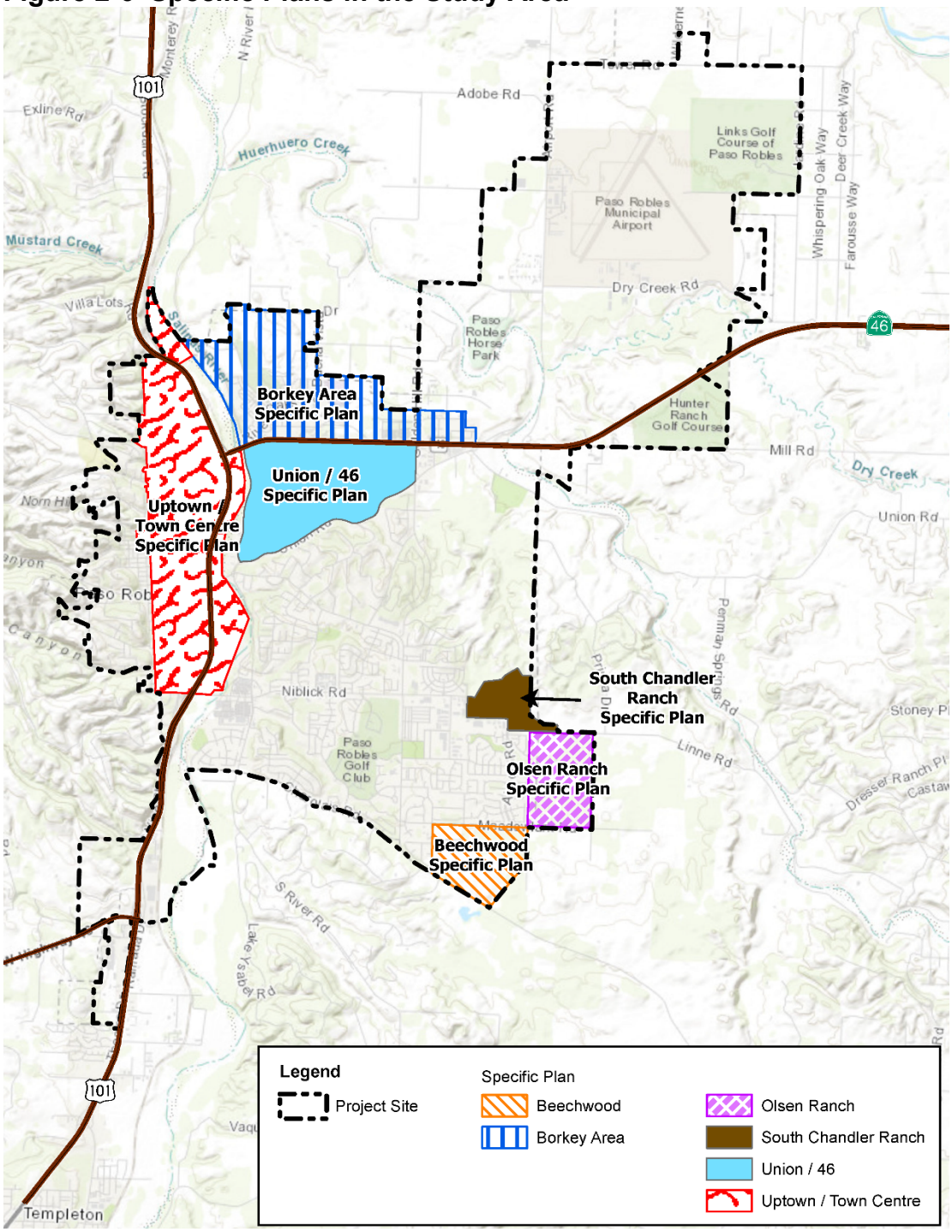
contain a higher rate of people using public transportation, ranging from approximately 0.4 to 2.0 percent.

Regarding minority populations in the study area, according to U.S. Census data, there are no concentrated areas containing minority populations within the City, except for Hispanic populations (as confirmed in Table 2.6 above). The total Hispanic population in Paso Robles is 38.0 percent, and in San Luis Obispo County overall, it is 24.0 percent. The project area census tract contains a Hispanic population of approximately 22.0 percent (lower than both the City and the County), whereas surrounding census tracts (102.02, 102.05, and 102.06) contain similar or much higher levels of Hispanic populations (nearly double that of the project area census tract), ranging from approximately 20.6 to 40.9 percent.

Neighborhoods/Housing

According to the General Plan Housing Element (October 2014), the east side of the City (including the study area) houses almost two-thirds of the City's population. Its development began in the late 1950s and, except for specific plan areas, is quickly approaching build-out. As discussed in Section 2.1.1, Existing and Future Land Use, there are some large specific plans in the study area—particularly to the south and west of the project area—that consist of some newer subdivisions constructed under the requirements of specific plan design guidelines, thus constituting more cohesive neighborhoods with the provision of various community and recreational facilities and amenities. Refer to Figure 2-6, Specific Plans in the Study Area.

Figure 2-6 Specific Plans in the Study Area



Recent residential development planning activity involving the Olsen-South Chandler Ranch Specific Plan Project (adopted in 2020) has occurred. The Specific Plan Project proposes to construct up to 1,293 new residences with a mix of housing types on approximately 356 acres. The proposed combined specific plan site is located approximately 2 miles south of the State Route 46 East (State Route 46)/Union Road intersection. Due to the specific plan site's proximity to the intersection, it is anticipated that future residents occupying the homes, once constructed, would use the improved State Route 46/Union Road intersection.

Table 2.7 shows the existing residences within the immediate project area parcels based on information from the San Luis Obispo County Assessor. The immediate project area is primarily undeveloped with some scattered development; however, it is designated for future development of commercial service and agricultural uses. Within the immediate project area, there are several isolated and scattered residences located south of State Route 46 that are not a part of a subdivision or within a specific plan area that contains neighborhood amenities and does not comprise a cohesive neighborhood. There are no senior/assisted living facilities in the immediate project area; the nearest one is approximately 0.75 mile southwest of the State Route 46/Union Road intersection. As such, the project area currently does not demonstrate a high level of community cohesion.

Long residency tenures can be an indicator of neighborhood cohesion. According to the 2017 American Community Survey data, there is a long average residency tenure throughout the study area and the City overall. The percentage of residents who have lived in their homes since before the year 2000 is approximately 58.2 percent in the study area (54.5 percent in the City), comprising most of the residents who have lived nearly 20 years in their current homes.

Table 2.7 Residences in the Project Area by Assessor's Parcel Number

Assessor's Parcel Number	Address	Structure Size (Square Feet)	Year Built
025-362-002	2916 Union Road	1,077	1952
025-362-003	2930 Union Road	1,232	1975
025-362-036	2944 Union Road	3,424	1989
025-362-037	2948 Union Road	2,066	1984
025-371-016	2955 Union Road	1,896	1989
025-371-017	2961 Union Road	Unknown	Unknown

Source: San Luis Obispo County Assessor, https://assessor.slocounty.ca.gov/assessor/pisa/search.aspx, accessed September 16, 2019.

Note: Aerial photograph review indicates there is a residential structure and outbuildings located on Assessor's Parcel Number 025-371-017; however, this is not reflected on the San Luis Obispo County Assessor Property

Information Search system, which indicates there are no improvements on this parcel.

Table 2.8 provides additional housing characteristic demographics in the study area census tract (102.07), including median household value, tenure (home ownership) rate, and vacancy rate. As shown, with nearly 1,500 residential units in the study area, the homeownership rate is high at 79.0 percent, and the vacancy rate is low at 3.5 percent, generally indicating stability in the study area.

Table 2.8 Housing Characteristics in the Study Area

Census Tract Number	Total Number of Households	Median Home Value	Tenure/Home Ownership Rate	Vacancy Rate
102.07	1,607	$43,200	79.0 percent	3.5 percent

Source: U.S. Census Bureau, 2021 American Community Survey 5-year estimates, https://data.census.gov/cedsci/ accessed April 19, 2023.

Economic Base

According to the City's most recent Economic Profile (2019), the City's labor force consists of 15,957 people (employed population 16 years and older). The largest industries in the City are comprised of the following: educational services and health care (2,980 jobs); retail trade (2,091 jobs); manufacturing (2,008 jobs); accommodation and food service (1,969 jobs); and public administration (1,215 jobs).

In addition, Paso Robles is the third largest wine region in California. The Paso Robles American Viticulture Appellation is home to more than 200 wineries and 40,000 vineyard acres focusing on premium wine production. The San Luis Obispo County wine region attracts over 1.2 million tourists annually. The economic impact of wine and wine grapes in Paso Robles is estimated at $1.467 billion annually. As a result, tourism continues to be a major source of income for the City. The increase in grape and wine production has made Paso Robles a tourist destination for in-state, national, and international visitors. Transient occupancy tax collections, viewed as an indicator of tourism success, have increased significantly in recent years.

Commercial businesses in the immediate project area include the following:

- Several small retail businesses (including but not limited to pet boarding and self-storage facilities in the southwest quadrant of the State Route 46/Union Road intersection and a trailer sales dealership and a gym in the northwest quadrant of the intersection).
- A winery (Eos Estate Winery located approximately 0.25 mile northeast of the intersection).

- A campground (Wine Country Recreational Vehicle Resort located approximately 0.5 mile east of the intersection).
- Private recreational facilities (Ravine Water Park, located approximately 0.25 mile northeast of the intersection, and the Paso Robles Sports Club, located approximately 0.3 mile southeast of the intersection).
- One public recreational facility (Barney Schwartz Park, located approximately 0.25 mile southeast of the intersection).
- Retail shopping and dining amenities (Golden Hills Plaza, located approximately 0.5 mile to the west).

Also of note, the City's unemployment rate is lower than California and national percentages. The most recent unemployment rate in San Luis Obispo County and Paso Robles was 3.0 percent, whereas the unemployment rates in California and the nation were 4.1 percent and 3.7 percent, respectively.

Community Facilities

Community facilities are those services and institutions that the local population relies on for their health and welfare and as a means to interact with other community members. Community facilities include schools, libraries, recreation facilities, health providers, emergency services, community centers, boys and girls clubs, and other similar institutions. The severity of the impact of the transportation project on community cohesiveness will depend on how much the community uses and relies on each facility and the degree to which the project will impede or enhance the ability of residents to access each facility.

Community facilities within the study area are described below. There are no libraries located within the study area. There are no community centers within the study area; however, the City's Recreation Services Department, which hosts camps, classes, lessons, leagues, and events, is located just south of the southern study area boundary at Centennial Park at 600 Nickerson Drive.

- Educational Facilities: Most of the City's schools are located either to the west or south of the study area. Kermit King Elementary School is located at 700 Schoolhouse Circle, within the western portion of the study area. In addition, the Cuesta College North County Campus is at 2800 Buena Vista Drive, also within the western portion of the study area.
- Emergency service providers: There are no emergency service providers within the study area; however, the City's Fire and Emergency Services building is located just outside the southwestern boundary of the study area, at 900 Park Street.
- Medical institutions: There are multiple medical providers located within the study area, including the Tenet Health Central Coast Primary and Specialty Care located at 2727 Buena Vista Drive; Community Health

Centers located at 2800 Riverside Avenue; and various individual medical providers located at the Golden Hill Professional Building at 2120 Golden Hill Road. All these facilities are situated within the western portion of the study area, close to State Route 46.

Community Involvement

According to the State Route 46E Comprehensive Corridor Study Public Involvement Summary, residents within the project area have identified high-priority items of concern affecting their community, including the need for additional local road connectivity and generally improving local road connections; maintaining existing businesses and protecting right-of-way; maintaining the character of the surrounding community, and ensuring corridor safety. A complete discussion of public involvement is provided in Chapter 4 of this document.

Environmental Consequences

Temporary Impacts

No-Build Alternative

Since no construction or physical changes to the environment would occur under the No-Build Alternative, no temporary impacts related to community character and cohesion would occur under this alternative.

Build Alternative (Phases 1 and 2)

Construction of Phase 1 of the Build Alternative would occur over an estimated 24-month period, and construction of Phase 2 would occur over an estimated 24-month period. Construction activities would result in temporary air quality, noise, and traffic impacts within the study area, which may affect existing populations and neighborhoods in the study area. However, access to the neighborhoods within the study area would be maintained throughout construction, and a Traffic Management Plan would be implemented during the Plans, Specifications, and Estimates phase. Refer to Chapter 1.4 of this Initial Study/Environmental Assessment for details regarding the Traffic Management Plan. Temporary adverse effects are not anticipated to occur in this regard.

Permanent Impacts

No-Build Alternative

There would be no permanent impacts under the No-Build Alternative since no physical changes to the existing environment would occur. However, similar to existing conditions, generally unacceptable peak hour Level of Service “F” operations are projected to remain/escalate at unsignalized at-grade intersections on State Route 46/Union Road and State Route 46/Airport Road through the year 2025 No-Build conditions. A general failure of at-grade intersection operations (in other words, peak hour Level of Service “F” with overflow delays) is projected along State Route 46 at-grade study intersections under the year 2045 No-Build conditions under all critical peak

hour periods and under both annual average and seasonal/peak month conditions. This would include the signalized State Route 46/Golden Hill Road intersection. Community resources, as discussed above, may experience adverse impacts because of the continued deficient intersection operations.

Build Alternative (Phases 1 and 2)

The Build Alternative would not result in impacts regarding general demographics or ethnic and racial composition because the project would not divide neighborhoods (since the improvements would occur on existing roadways and future planned adjacent roadways, which would also not divide neighborhoods), nor would the project separate residences from any community facilities in the study area. The Build Alternative is not expected to result in disproportionate effects on minority populations. Rather, beneficial impacts expected to result from project implementation include a reduction in delays, improvement in access, reliability, and operations in the vicinity of the intersections of State Route 46/Union Road and State Route 46/Airport Road, and enhanced connectivity for bicycles and pedestrians across State Route 46. These benefits would be experienced by all populations in the study area using these roadway facilities, including environmental justice populations; refer to Section 2.1.8, Environmental Justice, for further analysis regarding Environmental Justice.

The improved traffic operations and enhanced access that would occur under the Build Alternative would accommodate planned growth, and would not decrease public access, divide neighborhoods, or separate residences from community facilities. As discussed in Section 2.1.5, Growth, the project intersection improvements are included in the General Plan Circulation Element, and as such, unplanned future development is not expected to occur with project implementation. Based on the planned land use designations, projected growth for the area, and planned projects identified in the study area, planned growth in the study area is anticipated to occur whether or not the project is constructed. However, due to the enhanced accessibility that would occur with project implementation, project construction is anticipated to influence this planned growth in the study area since the enhanced accessibility could attract development to occur within the project vicinity.

In addition, as discussed in Section 2.1.3, Parks and Recreational Facilities, the minor loss of 11 parking spaces at Barney Schwartz Park would not be considered an adverse effect on community cohesion within the project area. Also, as discussed in Section 2.1.7, Relocations and Real Property Acquisition, one residential relocation (Assessor's Parcel Number 025-371-017) and one business relocation (Paso Robles Pet Boarding, Assessor's Parcel Number 025-362-004) would occur under the Build Alternative. However, real property acquisition would be acquired per the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and property owners would receive just compensation and fair

market value for their property. Relocation of the impacted residential and business properties would not cause an adverse effect on community cohesion because opportunities exist for relocation with the community, and compensation under the Relocation Assistance and Real Property Acquisition Policies Act of 1970 would be provided.

With respect to potential perceived quality-of-life impacts on population and housing relative to aesthetics, air quality (dust and odor), noise, or traffic, technical studies prepared for the project indicate that no long-term impacts regarding these resources would occur with adherence to existing standard specifications and requirements and the implementation of avoidance, minimization, and/or mitigation measures (refer to Measures Visual-Aesthetic-1 through 3). While there is not a high degree of cohesion in the immediate project area as discussed above, it is anticipated that the quality of life for neighborhoods throughout the study area would improve as a result of the following project benefits:

1. Overall reduction in delays.
2. Improvement in reliability and operations in the vicinity of the intersections of State Route 46/Union Road and State Route 46/Airport Road.
3. Enhanced connectivity for bicycles and pedestrians across State Route 46.

In conclusion, based on the analysis in this subsection, the Build Alternative would not adversely affect community cohesion in the study area.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures would be required.

2.1.7 Relocations and Real Property Acquisition

Regulatory Setting

The Caltrans Relocation Assistance Program is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), and Title 49 Code of Federal Regulations Part 24. The purpose of the Relocation Assistance Program is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Appendix D of this document contains a summary of the Relocation Assistance Program.

All relocation services and benefits are administered without regard to race, color, national origin, persons with disabilities, religion, age, or sex. Appendix B of this document contains a copy of the Caltrans Title 6 Policy Statement.

Affected Environment

This section is based on the May 2023 Community Impact Assessment that was prepared for the proposed project.

A detailed profile of all parcels that would be potentially affected by temporary (Temporary Construction Easement) and permanent right-of-way acquisition associated with Phase 1 and Phase 2 of the Build Alternative, including Assessor's Parcel Numbers, addresses, property owners, total parcel areas, impact areas, impact area percentages, property type/land uses, and relocations, are shown in Tables 2.9 through 2.12 below. In addition, Figure 2-7, Phase 1 of the Build Alternative-Potential Partial Right-of-Way Acquisition Map, and Figure 2-8, Phase 2 of the Build Alternative-Potential Partial Right-of-Way Acquisition Map, show the areas of potential temporary and permanent right-of-way acquisition for each phase. As shown in the tables, the project would result in one residential relocation (Assessor's Parcel Number 025-371-017) and one business relocation (Paso Robles Pet Boarding, Assessor's Parcel Number 025-362-004). It should be noted that the land acquisition and relative economic terminology shown in these figures includes the following terms, which are defined as follows:

- Fee Land Acquisition: Defined as the "fee simple" purchase of a parcel of land, which transfers full ownership of the property, including the underlying title, to another party.
- Moderate Damages: Defined as impacts to property improvements, access, loss of trees, et cetera, and may result in potential severance damages on top of the land value.
- Uneconomic Remnants: Defined as a parcel of real property in which the owner is left with an interest after a partial acquisition of the owner's property and which the acquiring agency has determined has little or no value or utility to the owner.
- Land Acquired by the City: Defined as a transaction in which land is acquired by the City for current or future municipal purposes and/or to benefit the community.

Environmental Consequences

Temporary and permanent partial right-of-way acquisition of parcels situated within the project area would be required with the project. The affected parcels include both vacant land and properties with residential or commercial structures, discussed below. All real property acquisition associated with the project potentially involves only partial acquisitions, but there is also the potential that full acquisitions may be required.

It should be noted that the project is not anticipated to result in economic impacts on residential or business properties located in the project area. The main economic impact of a transportation project on businesses is a change in the level of business activity. While minor changes in access and parking

would result, access to local businesses would be maintained throughout construction; also, no permanent acquisition would occur that would obstruct access to these businesses.

Temporary Impacts

No-Build Alternative

The No-Build Alternative would not result in any temporary impacts regarding relocations or real property acquisition since no construction would occur and existing conditions would remain.

Build Alternative (Phases 1 and 2)

It is expected that Temporary Construction Easement areas would be required for the Build Alternative. Tables 2.9 and 2.10 below show the potential temporary right-of-way acquisitions that may occur under Phases 1 and 2 of the Build Alternative, respectively. The same Temporary Construction Easement area would be used during Phase 1 and Phase 2 of construction; as such, a total of 48,371 square feet (1.110 acres) would be temporarily acquired during both phases of project construction. An equal width for the same length is assumed for the Temporary Construction Easement areas for both phases. The same area would be used to accommodate construction vehicles and equipment access in both phases of construction. Temporary Construction Easements are needed at the far edge of the project right-of-way because these roadways are on a cut section. Additional area is needed for excavation stockpiling, contour grading, and vehicular access at the top of the slope. It should be noted that if full parcel acquisition occurs under the Build Alternative, then no Temporary Construction Easements would be required. The proposed temporary real property impacts would be refined in the right-of-way acquisition phase of the project.

No temporary residential or business relocations or displacements would occur under either Phase 1 or Phase 2 of the Build Alternative as a result of the Temporary Construction Easement areas because the percent of parcels temporarily used would not make the balance of the property unusable for the current use. Additionally, residents and business owners would not be required to find temporary alternative spaces during construction. All Temporary Construction Easement areas would be returned to their existing use upon completion of construction.

Table 2.9 Phase 1 of the Build Alternative-Potential Partial Temporary (Temporary Construction Easement) Right-of-Way Acquisitions

Assessor's Parcel Number	Address	Total Parcel Area	Impact Area (Square Feet)	Impact Area Percentage	Property Type/Current Land Use	Relocation
025-362-003	2930 Union Road	1,562,062	22,796	1.5 percent	Commercial Service	No
025-362-004	2940 Union Road	232,610	7,504	3.2 percent	Commercial Service	No
025-362-036	2944 Union Road	217,800	5,442	2.5 percent	Commercial Service	No
025-362-037	2948 Union Road	217,800	270	0.1 percent	Commercial Service	No
025-371-026	None	3,432,964	12,359	0.4 percent	Residential Suburban	No

Source: Mott MacDonald, Right-of-Way Requirements Map, March 2022.

Table 2.10 Phase 2 of the Build Alternative-Potential Partial Temporary (Temporary Construction Easement) Right-of-Way Acquisitions

Assessor's Parcel Number	Address	Total Parcel Area	Impact Area (Square Feet)	Impact Area Percentage	Property Type/Current Land Use	Relocation
025-362-003	2930 Union Road	1,562,062	22,796	1.5 percent	Commercial Service	No
025-362-004	2940 Union Road	232,610	7,504	3.2 percent	Commercial Service	No
025-362-036	2944 Union Road	217,800	5,442	2.5 percent	Commercial Service	No
025-362-037	2948 Union Road	217,800	270	0.1 percent	Commercial Service	No
025-371-026	None	3,432,964	12,359	0.4 percent	Residential Suburban	No

Source: Mott MacDonald, Right-of-Way Requirements Map, March 2022.

Permanent Impacts

No-Build Alternative

The No-Build Alternative would not result in any permanent impacts regarding relocations or real property acquisition since no improvements would occur and existing conditions would remain.

Build Alternative (Phases 1 and 2)

As shown in Tables 2.11 and 2.12, a total of 1,189,170 square feet (27.299 acres) for Phase 1 and 479,089 square feet (10.998 acres) for Phase 2 would be permanently acquired. The project would result in one residential relocation (Assessor's Parcel Number 025-371-017) that would occur in Phase 2 and one business relocation (Paso Robles Pet Boarding, Assessor's Parcel Number 025-362-004) that would occur in Phase 1. It should be noted that there are two residential units located on this parcel; however, only one of the units would be displaced under the Build Alternative. The proposed permanent real property impacts would be refined in the right-of-way acquisition phase of the project.

Assessor's Parcel Number 025-362-004 (Phase 1)

The Right-of-Way Cost Estimate for this parcel shows a relocation cost of $938,750 and a building price of $50/square foot for the mobile home. However, no details regarding structure characteristics (such as square footage and year built) are available on either the project's Right-of-Way Cost Estimate or the San Luis Obispo County Assessor's Office. If the business is not relocated, the Right-of-Way Cost Estimate cites a reduction in costs to $100,000 for potential irrigation, landscape, and lighting.

Replacement business properties in the study area were researched in the event that relocation is determined to be necessary under the Build Alternatives. It should be noted that the replacement business data would be refined in the right-of-way acquisition phase of the project. Real estate research was conducted to determine the availability of business replacement properties within the study area. As noted above, no specific structural data for the building is available. Therefore, the $938,750 figure was used as a baseline for researching the availability of replacement business locations in the City based on the Right-of-Way Cost Estimate. At the time that research for this CIA was conducted, there were two business locations available for sale that were identified as being comparable to the displaced property. The price range of these locations was $1,280,000 to $2,275,000, and the size range was 3,213 to 6,840 square feet), with both locations being situated west of U.S. Route 101, within the northern portion of the City's downtown area.

Assessor's Parcel Number 025-371-017 (Phase 2)

According to the Right-of-Way Cost Estimate data for this parcel, the residential unit proposed for demolition and replacement is a mobile home.

The Right-of-Way Cost Estimate shows a relocation cost of $100,000 and a building price of $50/per square foot for the mobile home. However, no details regarding housing characteristics (such as square footage, number of bedrooms and bathrooms, and year built) are available on either the project's Right-of-Way Cost Estimate or the San Luis Obispo County Assessor's Office.

Due to the relocation, the availability of replacement housing, which must be decent, safe, and sanitary, has been preliminarily researched. It should be noted that the replacement housing data would be refined in the right-of-way acquisition phase of the project. Real estate research was conducted to determine the availability of mobile home residential replacement properties within the study area. As noted above, no specific structural data for the mobile home is available. Therefore, a median mobile home value of $398,600 was used as a baseline for researching the availability of replacement housing in the City based on the most recent (2020) U.S. Census Bureau data. At the time that research for the Community Impact Assessment was conducted, there were four residences available for sale that were identified as being comparable to the displaced property (the size range of the four residences was 1,152 to 1,756 square feet). The parameters of this analysis included a sale price range of $299,000 to $399,000 and a location focused primarily on the project area census tract.

As indicated by the analysis, there are currently a sufficient number of mobile home residential replacement properties on the market, similar to the displacement property, and it was determined that adequate housing stock is available in proximity to the project area to meet the decent, safe, and sanitary standards to relocate the displaced resident from the impacted area. In addition, 2020 U.S. Census Bureau data indicate that there is currently a 3.5 percent vacancy rate for the study area (as indicated in Table 2.8). Therefore, it is anticipated that there would be sufficient single-family residences that are equal to or better than the displacement properties available for purchase.

The project would be required to provide property owners with just compensation and fair market value for their property as a project feature, per the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Appendix D of this document contains a summary of the Relocation Assistance Program, which is considered appropriate to address the project's acquisition of real property.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures would be required. All property acquisitions and relocations would be conducted in accordance with the Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970, as amended.

Table 2.11 Phase 1 of the Build Alternative-Potential Partial Permanent Right-of-Way Acquisitions

Assessor's Parcel Number	Address	Total Parcel Area	Impact Area (Square Feet)	Impact Area Percentage	Property Type/Current Land Use	Relocation
025-362-003	2930 Union Road	1,562,062	153,351	9.8 percent	Commercial Service	No
025-362-004	2940 Union Road	232,610	56,638	24.3 percent	Commercial Service	Yes
025-362-036	2944 Union Road	217,800	40,778	18.7 percent	Commercial Service	No
025-362-037	2948 Union Road	217,800	3,916	1.8 percent	Commercial Service	No
025-371-026	None	3,432,964	484,800	14.2 percent	Residential Suburban	No
025-423-010	3290 Combine Street	322,780	61,165	18.9 percent	Commercial Service	No
025-425-028	None	94,036	17,833	19.0 percent	Commercial Service	No
025-435-029	None	1,799,899	370,689	20.6 percent	Agricultural; Business Park; Commercial Service	No

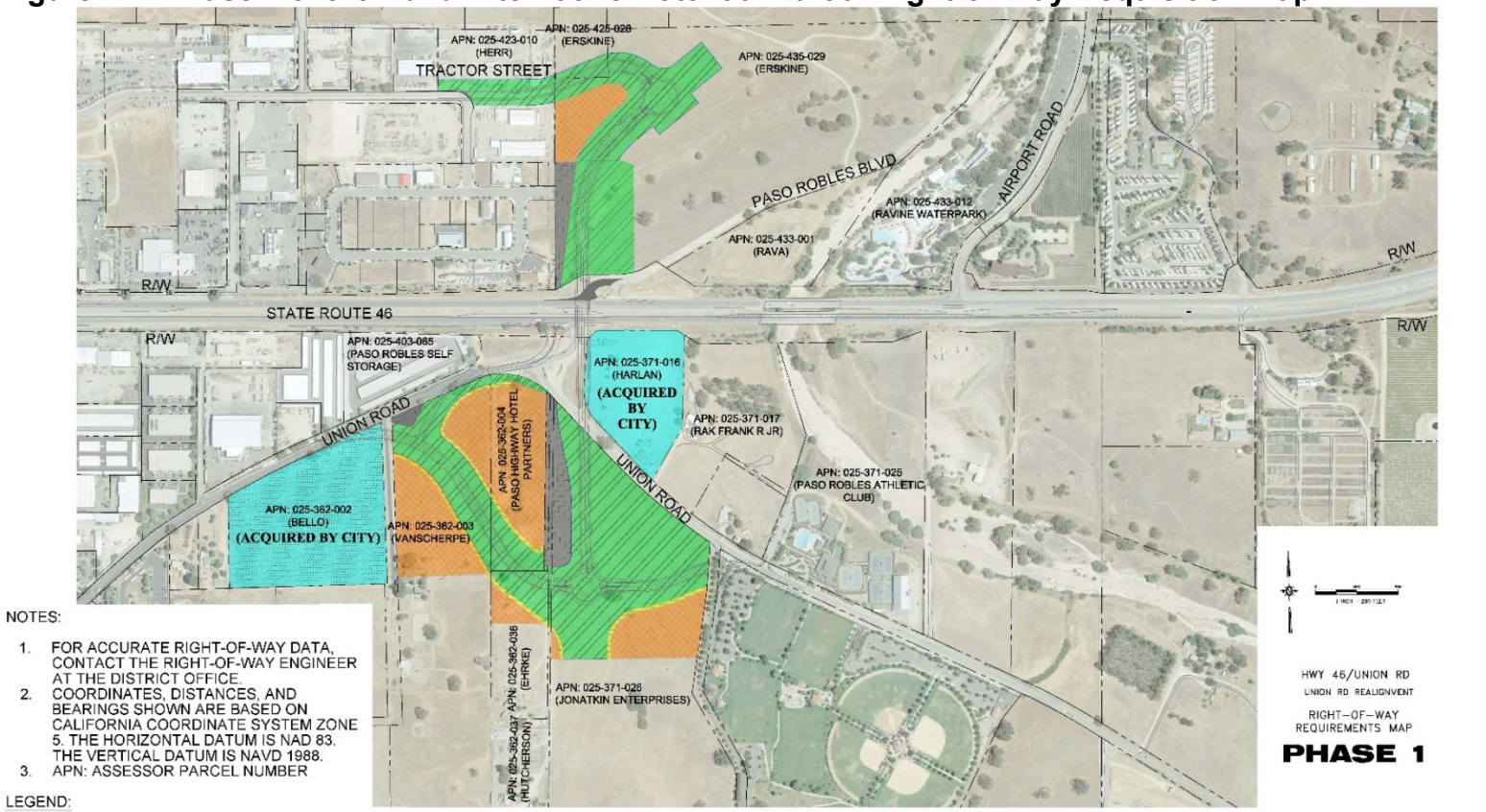
Source: Mott MacDonald, Right-of-Way Requirements Map, March 2022.

Table 2.12 Phase 2 of the Build Alternative-Potential Partial Permanent Right-of-Way Acquisitions

Assessor's Parcel Number	Address	Total Parcel Area	Impact Area (Square Feet)	Impact Area Percentage	Property Type/Current Land Use	Relocation
025-371-017	2961 Union Road	391,168	113,545	29.0 percent	Residential/Commercial Service	Yes
025-371-025	2975 Union Road	304,920	60,812	19.9 percent	Commercial Service	No
025-371-026	None	3,432,964	28,579	15.0 percent	Residential Suburban	No
025-371-031	2981 Union Road	1,143,450	4,218	0.4 percent	Commercial Service	No
025-433-001	None	275,734	108,460	39.3 percent	Commercial Service	No
025-433-012	2301 Airport Road	703,929	7,920	1.1 percent	Commercial Service	No
025-433-013	2300 Airport Road	359,805	12,433	3.5 percent	Commercial Service	No
025-435-029	None	1,799,899	130,061	27.8 percent	Agricultural; Business Park; Commercial Service	No
025-437-008	3507 Combine Street	28,885	107	0.4 percent	Commercial Service	No
025-437-009	3511 Combine Street	26,547	967	3.6 percent	Commercial Service	No
025-437-010	3515 Combine Street	26,457	1,679	6.3 percent	Commercial Service	No
025-437-011	3519 Combine Street	25,700	2,502	9.7 percent	Commercial Service	No
025-437-012	3523 Combine Street	25,256	3,234	12.8 percent	Commercial Service	No
025-437-013	3527 Combine Street	19,946	4,572	22.9 percent	Commercial Service	No

Source: Mott MacDonald, Right-of-Way Requirements Map, March 2022.

Figure 2-7 Phase 1 of the Build Alternative-Potential Partial Right-of-Way Acquisition Map



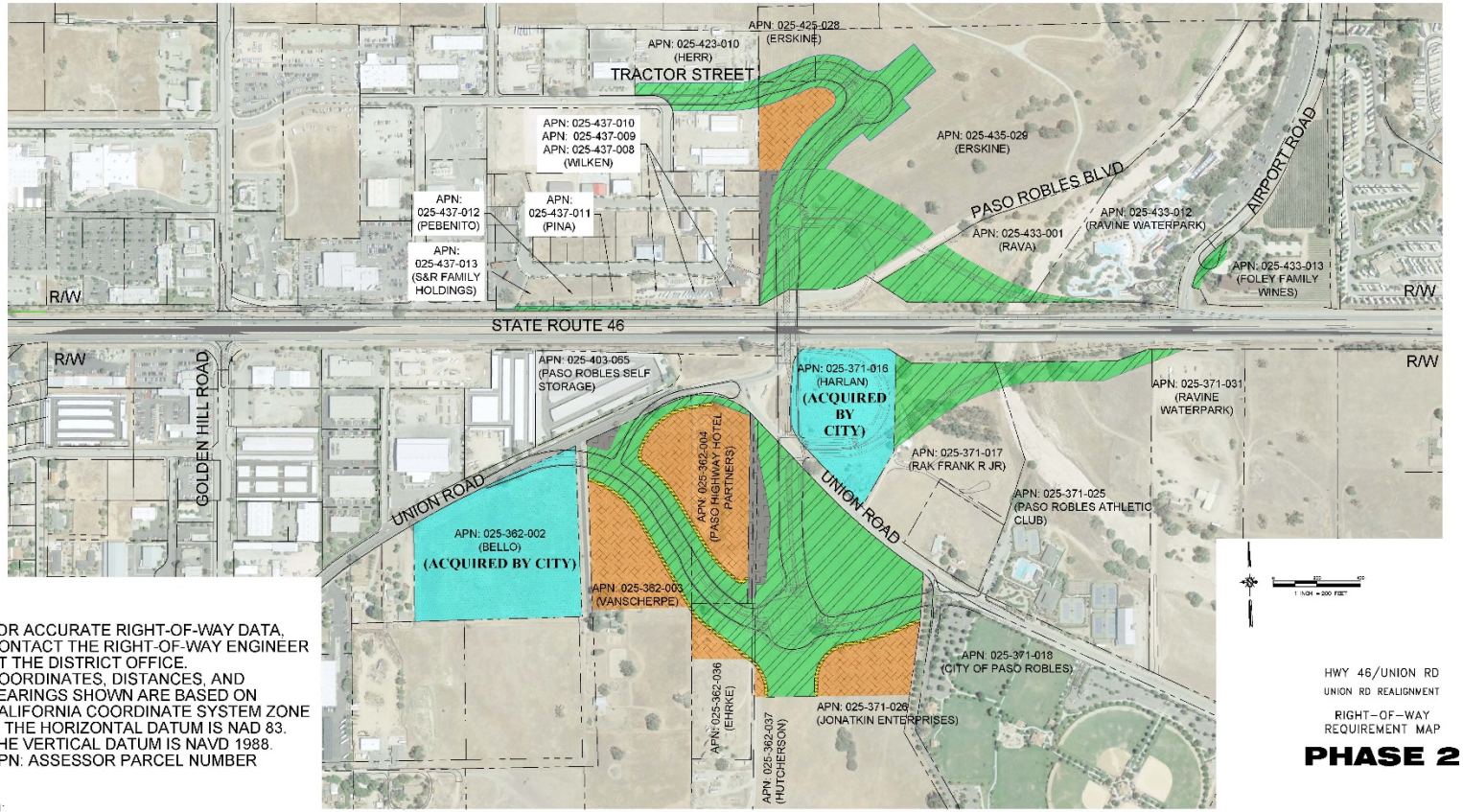
NOTES:

1. FOR ACCURATE RIGHT-OF-WAY DATA, CONTACT THE RIGHT-OF-WAY ENGINEER AT THE DISTRICT OFFICE.
2. COORDINATES, DISTANCES, AND BEARINGS SHOWN ARE BASED ON CALIFORNIA COORDINATE SYSTEM ZONE 5. THE HORIZONTAL DATUM IS NAD 83. THE VERTICAL DATUM IS NAVD 1988.
3. APN: ASSESSOR PARCEL NUMBER

LEGEND:

- UNECONOMIC REMNANTS: DEFINED AS A PARCEL OF REAL PROPERTY IN WHICH THE OWNER IS LEFT WITH AN INTEREST AFTER A PARTIAL ACQUISITION OF THE OWNER'S PROPERTY, AND WHICH THE ACQUIRING AGENCY HAS DETERMINED LITTLE OR NO VALUE OR UTILITY TO THE OWNER.
- MODERATE DAMAGES: DEFINED AS IMPACTS TO PROPERTY IMPROVEMENTS, ACCESS, LOSS OF TREES, ECT. THAT MAY RESULT IN POTENTIAL SEVERANCE DAMAGES ON TOP OF THE LAND VALUE.
- FEE LAND ACQUISITION: DEFINED AS THE "FEE SIMPLE" PURCHASE OF A PARCEL OF LAND, WHICH TRANSFERS FULL OWNERSHIP OF THE PROPERTY, INCLUDING THE UNDERLYING TITLE, TO ANOTHER PARTY.
- TEMPORARY CONSTRUCTION EASEMENT
- LAND ACQUIRED BY CITY OF PASO ROBLES: DEFINED AS A TRANSACTION IN WHICH LAND IS ACQUIRED BY THE CITY FOR CURRENT OR FUTURE MUNICIPAL PURPOSES, AND/OR TO BENEFIT THE COMMUNITY.
- RIGHT-OF-WAY BOUNDARY LINE

Figure 2-8 Phase 2 of the Build Alternative-Potential Partial Right-of-Way Acquisition Map



NOTES:

1. FOR ACCURATE RIGHT-OF-WAY DATA, CONTACT THE RIGHT-OF-WAY ENGINEER AT THE DISTRICT OFFICE.
2. COORDINATES, DISTANCES, AND BEARINGS SHOWN ARE BASED ON CALIFORNIA COORDINATE SYSTEM ZONE 5. THE HORIZONTAL DATUM IS NAD 83. THE VERTICAL DATUM IS NAVD 1988.
3. APN: ASSESSOR PARCEL NUMBER

LEGEND:

- UNECONOMIC REMNANTS: DEFINED AS A PARCEL OF REAL PROPERTY IN WHICH THE OWNER IS LEFT WITH AN INTEREST AFTER A PARTIAL ACQUISITION OF THE OWNER'S PROPERTY, AND WHICH THE ACQUIRING AGENCY HAS DETERMINED LITTLE OR NO VALUE OR UTILITY TO THE OWNER.
- MODERATE DAMAGES: DEFINED AS IMPACTS TO PROPERTY IMPROVEMENTS, ACCESS, LOSS OF TREES, ECT. THAT MAY RESULT IN POTENTIAL SEVERANCE DAMAGES ON TOP OF THE LAND VALUE.
- FEE LAND ACQUISITION: DEFINED AS THE "FEE SIMPLE" PURCHASE OF A PARCEL OF LAND, WHICH TRANSFERS FULL OWNERSHIP OF THE PROPERTY, INCLUDING THE UNDERLYING TITLE, TO ANOTHER PARTY.
- TEMPORARY CONSTRUCTION EASEMENT
- LAND ACQUIRED BY CITY OF PASO ROBLES: DEFINED AS A TRANSACTION IN WHICH LAND IS ACQUIRED BY THE CITY FOR CURRENT OR FUTURE MUNICIPAL PURPOSES, AND/OR TO BENEFIT THE COMMUNITY.
- RIGHT-OF-WAY BOUNDARY LINE

2.1.8 Environmental Justice

Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President William J. Clinton on February 11, 1994. This Executive Order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2021, this was $26,500 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964, and related statutes, have also been included in this project. The Department's commitment to upholding the mandates of Title VI is demonstrated by its Title VI Policy Statement, signed by the Director, which can be found in Appendix B of this document.

Affected Environment

This section is based on the May 2023 Community Impact Assessment that was prepared for the proposed project. Demographic information from the U.S. Census Bureau was used to identify minority and low-income populations in the study area, using the same census tract (Census Tract 102.07) that was used for general demographics, discussed in Section 2.1.6, Community Character and Cohesion.

Minority Population Characteristics

As shown in Table 2.6 in Section 2.1.5, the study area census tract has a similar ethnic and racial distribution to the regional City and San Luis Obispo County distribution for most categories, except for the population identifying as "White Alone," which is higher in Census Tract 102.07 at 74.3 percent than in both the City (52.3 percent) and County (65.0 percent). However, the percentage of persons identifying as Hispanic or Latino in Census Tract 102.07 represents a somewhat dissimilar distribution when compared to the City and County. Specifically, the percentage of persons identifying as Hispanic or Latino in Census Tract 102.07 and the County are similar at 22.0 percent and 24.0 percent, respectively, whereas the Hispanic or Latino population in the City is slightly higher at 38.0 percent. However, with a nonwhite population percentage of 25.7 and a Hispanic/Latino population percentage of 22.0, the study area census tract is not considered to contain a substantial percentage of minority populations.

According to the analysis techniques described in the Caltrans Standard Environmental Reference, Volume 4, Community Impact Assessment in

Section 8.2.2, Identifying Protected Populations (October 2011), "Minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or another appropriate unit of geographic analysis."

Poverty/Low-Income Population Characteristics

For this discussion, the poverty threshold, according to the U.S. Census Bureau, was used to determine the percentages of families living below the poverty line. According to the Census Bureau, the poverty threshold for a family of four (including two adults and two children) was $26,246 in 2020 (the most recent year for which this data is available) (U.S. Census Bureau website, accessed July 12, 2021. https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html). Low income is defined based on the Department of Health and Human Services poverty guidelines. According to the Department of Health and Human Services 2020 Poverty Guidelines, the poverty threshold for a family of four in the State of California is $26,200 (U.S. Department of Health and Human Services website https://aspe.hhs.gov/poverty-guidelines, accessed April 28, 2021). There is a minor difference of $46 between the Census Bureau and the Department of Health and Human Services poverty thresholds.

Table 2.13 shows the percentage of families living below the poverty level (low income) for the City, San Luis Obispo County, and the study area census tract. As shown, the percentage of families living below the poverty level in the study area is low at 7.0 percent. As compared to the percentages of the City and County, which are also low, the study area census tract has a slightly higher low-income population. However, the poverty levels of all three areas (census tract, City, County) fall below that of the state of California overall at 8.2 percent. As such, the study area is not considered to contain a substantial percentage of low-income/poverty-level populations.

Table 2.13 Regional, Local, and Project Area Income and Poverty Levels

Low-Income Population	Census Tract 102.07	City of Paso Robles	San Luis Obispo County
Total Population	4,256	31,490	282,424
Median Household Income	$85,897	$62,601	$73,518
Families living below the poverty level	7.0 percent	6.7 percent	6.1 percent

Source: U.S. Census Bureau, 2019 and 2020 American Community Survey 5-year estimates, https://data.census.gov/cedsci/ accessed July 8, 2021, and October 3, 2022.

To determine families living below the poverty level, the Census Bureau uses a set of money income thresholds that vary by family size and composition. If a family's total income is less than its threshold, then that family and every individual in it are considered in poverty. The official poverty thresholds do not

vary geographically, but they are updated for inflation using the Consumer Price Index (Consumer Price Index-U). The official poverty definition uses money income before taxes and does not include capital gains or noncash benefits (such as public housing, Medicaid, and food stamps).

Environmental Consequences

To determine whether the project would have a "disproportionately high and adverse impact" on minority and low-income populations, various factors were considered, including potential beneficial and adverse impacts, both temporary and permanent, and measures that would be incorporated into the project and offsetting benefits. Technical studies and analyses were reviewed to determine whether the Build Alternative would have adverse effects on all segments of the population, including minority and low-income population groups. The technical studies addressing aesthetics, air quality, noise and vibration, and traffic/transportation indicate that some potential adverse effects are expected because of the Build Alternative. However, these impacts are either temporary or would be avoided, minimized, or mitigated to levels that are below significance. In addition, potential beneficial access and operational impacts that may result from the implementation of the Build Alternative are also considered. Thus, no permanent effects are expected to disproportionately affect the minority and low-income populations within the study area.

Temporary Impacts

No-Build Alternative

No temporary impacts regarding environmental justice populations would occur with the implementation of the No-Build Alternative since no construction activity would occur with this alternative.

Build Alternative (Phases 1 and 2)

Construction of the Build Alternative would occur over an estimated 48-month period; 24 months for Phase 1 and 24 months for Phase 2. Construction activities would result in temporary air quality, noise, and traffic impacts within the study area, which may affect existing populations, including environmental justice populations, in the study area. However, access to the neighborhoods within the study area would be maintained throughout construction, and a Transportation Management Plan would be implemented during the Plans, Specifications, and Estimates phase. In addition, no adverse air quality or noise impacts from construction are anticipated because construction would be conducted per Caltrans' Standard Specifications, as discussed in the respective technical studies prepared for the project.

Permanent Impacts

No-Build Alternative

There would be no permanent impacts under the No-Build Alternative since no physical changes to the existing environment would occur. However, similar to existing conditions, unacceptable peak hour Level of Service “F” operations are projected to remain/escalate at State Route 46 East (State Route 46)/Union Road and State Route 46/Airport Road unsignalized at-grade intersections through the year 2025 No-Build conditions. A general failure of at-grade intersection operations (in other words, peak hour Level of Service “F” with overflow delays) is projected along all State Route 46 at-grade study intersections under the year 2045 No-Build conditions, including the signalized State Route 46/Golden Hill Road intersection, under all critical peak hour periods, and under both annual average and seasonal/peak month conditions.

Build Alternative (Phases 1 and 2)

The project would not decrease public access, divide neighborhoods, or separate residences from community facilities. As discussed in Section 2.1.7, Relocations and Real Property Acquisition, of this document, one residential relocation (Assessor’s Parcel Number 025-371-017) and one business relocation (Paso Robles Pet Boarding, Assessor’s Parcel Number 025-362-004) would occur under the Build Alternative; refer to Section 2.1.7.

Regarding potential quality-of-life impacts to existing populations, including environmental justice populations, relative to aesthetics, air quality (dust and odor), noise, or traffic/transportation, technical studies prepared for the project indicate that no long-term adverse effects regarding these resources would occur with adherence to existing standard specifications and requirements and the implementation of avoidance, minimization, and/or mitigation measures (refer to Measures Visual-Aesthetic-1 through 3).

In addition, the Build Alternative would not separate minority or low-income populations from the rest of the community, nor would access to services that target low-income populations be affected, such as free medical or law clinics, shelters, or soup kitchens. The Build Alternative would not affect community identity by disrupting or displacing elements that provide a “sense of place," such as murals, gathering places, or community facilities. As discussed in Chapter 4 of this document, public involvement outreach specific to potential community impacts associated with the proposed project occurred in late 2020. The results of the outreach are discussed in Chapter 4 of this Initial Study/Environmental Assessment and indicate that the local community supports the project. Participants of the public outreach identified the highest project priorities as increasing safety and efficiency and separating local, regional, and interregional traffic. Beneficial impacts expected to result from project implementation include a reduction in delays, improvements in access, reliability, and operations in the vicinity of the intersections of State

Route 46/Union Road and State Route 46/Airport Road, and enhanced connectivity for bicycles and pedestrians across State Route 46. These benefits would be experienced by all populations in the study area using these roadway facilities, including environmental justice populations.

Avoidance, Minimization, and/or Mitigation Measures

Based on the above discussion and analysis, the Build Alternative would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of Executive Order 12898. No further environmental justice analysis is required.

2.1.9 Utilities and Emergency Services

Affected Environment

Utilities

The following utilities exist within the project area and its vicinity:

Pacific Gas and Electric Company

The Pacific Gas and Electric Company provides electrical power to San Luis Obispo County, including the City of Paso Robles. Multiple Pacific Gas and Electric Company 70-kilovolt power lines traverse the project site. Currently, overhead lines run parallel to Union Road (both the realigned Union Road and the current Union Road), Ardmore Road, and two unnamed roads/driveways south of State Route 46 East (State Route 46). The power line then crosses State Route 46 in a north-south direction and continues northeast, parallel to Paso Robles Boulevard. Underground electrical lines occur within the State Route 46/Union Road intersection.

Southern California Gas Company

The nearest high-pressure distribution pipeline to the project site runs north and south along North River Road, approximately 1.8 miles to the west.

The following medium-pressure pipelines occur onsite:

- A four-inch medium pressure (40-60 pound-force per square inch gauge) line extends east-west, within the northern portion of the State Route 46/Golden Hill Road intersection, along Caltrans right-of-way.
- A four-inch medium pressure (40-60 pound-force per square inch gauge) line extends north-south within the western portion of the State Route 46/Golden Hill Road intersection.
- A six-inch medium pressure (40-60 pound-force per square inch gauge) line within Caltrans right-of-way that traverses the State Route 46/Union Road intersection.

- A six-inch medium pressure (40-60 pound-force per square inch gauge) line extends east-west, along Caltrans right-of-way, north of State Route 46.

Telecommunications

American Telephone and Telegraph, Dish Network, DirecTV, Charter Communications, and other providers provide cable, television, and telephone service within the project area occur onsite at the following locations:

- Overhead cable distribution line within Caltrans right-of-way at the State Route 46/Union Road intersection.
- Overhead cable distribution line that crosses State Route 46, west of Union Road.
- Underground cable distribution line along Union Road within Caltrans right-of-way.
- Overhead cable distribution along Paso Robles Boulevard within Caltrans right-of-way.

Water

Water services to the project study area are provided by the City of Paso Robles. Underground water lines that are located within the project study area include the following:

- One 8-inch water line extending north-south along Union Road.
- One 12-inch water main extending north-south within the eastern portion of the Golden Hill Road/State Route 46 intersection.
- One 16-inch water line extending north-south along Union Road.
- One 16-inch water line that traverses the State Route 46/Union Road intersection.
- One 24-inch water line extending north-south along Golden Hill Road.

Sewer

Sewage services to the project study area are provided by the City of Paso Robles. Underground sewage lines occur onsite at the following locations:

- One 10-inch sewer line extending east-west along westbound State Route 46.
- One 12-inch sewer line extending north-south along Golden Hill Road.
- One 15-inch sewer line extending east-west along eastbound State Route 46.

Emergency Services

The following emergency service providers are located in the project vicinity and serve the project area:

Police

Police protection services are provided by the Paso Robles Police Department, which is located at 900 Park Street, Paso Robles, California 93446, approximately 2 miles southwest of the project site. The City's Police Department consists of more than 100 full-time, part-time, and volunteer personnel.

Fire

The Paso Robles Department of Emergency Services provides a variety of services to the community, including fire suppression, emergency medical services, rescue, hazardous materials, and other emergency responses. Like the Paso Robles Police Department, the Paso Robles Department of Emergency Services is located at 900 Park Street, Paso Robles, California 93446 (approximately 2 miles southwest of the project site). The Department of Emergency Services has automatic and mutual aid contractual agreements with the California Department of Forestry and other surrounding municipal departments for an emergency response to the area.

Environmental Consequences

Temporary Impacts

Utilities

No-Build Alternative

Under the No-Build Alternative, no construction would occur; therefore, temporary construction impacts to utilities would not occur.

Build Alternative (Phases 1 and 2)

The project's final design process (Plans, Specifications, and Estimates phase) would further evaluate all potential utility relocations that may be required for project implementation. An updated utility search would be conducted during the final design to determine any utility conflicts requiring attention. Coordination with the identified utility companies would be carried out during the Plans, Specifications, Estimates, and construction phases. No service disruptions would occur to any of the utilities during construction. Accordingly, adverse effects related to utilities during project construction are not anticipated to occur.

Emergency Services

No-Build Alternative

Under the No-Build Alternative, no construction would occur; therefore, temporary construction impacts to emergency services would not occur.

Build Alternative (Phases 1 and 2)

Access to developed areas in proximity to the project may potentially be constrained intermittently during construction. As noted in Chapter 1.0 of the Initial Study/Environmental Assessment, a Transportation Management Plan

has been included as a project feature to minimize potential traffic-related impacts during project construction. Travel through the project area would be maintained for emergency service vehicles during project construction. The Caltrans Transportation Management Plan Guidelines require consideration and notification of emergency service providers to provide adequate emergency access during the temporary construction process. With the preparation of the Transportation Management Plan during the Plans, Specifications, and Estimates phase, adverse effects would not occur in this regard.

Permanent Impacts

Utilities

No-Build Alternative

Under the No-Build Alternative, the project site would be maintained in its existing condition; therefore, no permanent changes or impacts to existing utilities in the project area would occur.

Build Alternative (Phases 1 and 2)

Permanent impacts to utilities under Phases 1 and 2 of the Build Alternative would include multiple relocations as described in Table 2.14, Utility Relocations, below. It is noted that the project is not expected to relocate existing sewer lines.

Table 2.14 Utility Relocations

Affected Utility	Relocation Information
Pacific Gas and Electric Company: Overhead electrical at the State Route 46/Union Road intersection.	Partial relocation outside of Caltrans right-of-way and partial relocation inside Caltrans right-of-way into a joint trench.
Pacific Gas and Electric Company: Underground electrical within the State Route 46/Union Road intersection.	Relocate to the outside of Caltrans right-of-way into a joint trench.
Southern California Gas Company: Six-inch uncased pressurized line.	Relocate to the underground utility line along the newly realigned Union Road. Partial relocation outside of Caltrans' right-of-way and partial encasement within the right-of-way.
Southern California Gas Company: Two 4-inch uncased pressurized lines.	Relocate to the underground utility line along the newly realigned Union Road. Partial relocation is outside of Caltrans' right-of-way, and partial encasement is within the right-of-way.
American Telephone and Telegraph: Overhead communications and cable distribution line within Caltrans right-of-way.	Relocate underground utility into a joint trench.
American Telephone and Telegraph: Four underground communication lines within Caltrans right-of-way at the State Route 46/Union Road intersection.	Relocate to one underground utility line partially outside of the proposed Caltrans right-of-way and partially within the proposed Caltrans right-of-way.
Charter: Communications pole within Caltrans right-of-way.	Relocate to underground utility into a joint trench.
Water: City of Paso Robles Public Works 16-inch uncased pressurized pipeline	Relocate to the outside of Caltrans' right-of-way and encase within the right-of-way
Water: City of Paso Robles Public Works 12-inch uncased existing pressurized pipeline	Partial relocation outside of Caltrans' right-of-way and partial relocation within the right-of-way
Water: City of Paso Robles eight-inch uncased existing pressurized water pipeline	Partial relocation outside of Caltrans right-of-way and partial relocation within the right-of-way

Source: Mott MacDonald, Utility Plan Maps, July 2010.

Before the completion of the final design, coordination with affected utility providers in the vicinity of the proposed State Route 46 East/Union Road Intersection Improvements project would be completed to verify that the project would not disrupt services. For any utilities affected (refer to the proposed utility relocations for both Phase 1 and Phase 2 of the Build Alternative above), required coordination would be completed to establish exact procedures and specifications for addressing facilities impacted by the project, and as necessary, additional analysis would be completed, and any measures identified in conjunction with the completion of additional analysis would be implemented. Any required relocations of utilities would be completed before any project-related construction. Accordingly, no permanent impacts to utilities are anticipated.

Emergency Services

No-Build Alternative

Under the No-Build Alternative, the project site and surrounding transportation network would be maintained; therefore, no changes to the provision of emergency services in the project area would occur.

Build Alternative (Phases 1 and 2)

The Build Alternative would improve mobility and traffic operations through the State Route 46 East/Union Road intersection and surrounding roadways. In turn, emergency services would be able to travel through the project area more efficiently, resulting in improved travel and response times in emergencies. Permanent adverse effects related to emergency services would not occur under the Build Alternative.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures would be required.

2.1.10 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

Caltrans, as assigned by the Federal Highway Administration, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of Federal-aid highway projects (see 23 Code of Federal Regulations 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

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

Affected Environment

This section is based on the State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Analysis Report, dated June 2019,

and the Supplement to the Traffic Operations Analysis Report, dated March 31, 2023.

Existing Facilities

Roadway Facilities

State Route 46 is a major interregional and important freight route that connects the Central Coast with the San Joaquin Valley. State Route 46 runs east-west from State Route 1 in San Luis Obispo County to State Route 99 in Kern County in Caltrans District 6 jurisdiction. The route has the highest traffic demand of any east-west travel corridor between the Pacheco Pass (State Route 152) to the north and the greater Los Angeles freeway system to the south. State Route 46 is a heavily used corridor for weekend travel between the Central Valley and the coast, particularly during the summer.

Traffic on State Route 46 consists of interregional travel and goods movements, intercity or intra-county travel within the region, and local trips within isolated communities. State Route 1, U.S. Route 101, and State Route 41 connect with State Route 46 in San Luis Obispo County. The State Route 46 segment east of U.S. Route 101 to the San Luis Obispo/Kern County line is also referred to as “State Route 46 East.” Within the City of Paso Robles, State Route 46 East (State Route 46) is an east-west, four-lane highway. Between the U.S. Route 101 interchange and Airport Road, currently, there are two signalized “at-grade” intersections along State Route 46, located at Buena Vista Drive and Golden Hill Road. The U.S. Route 101/State Route 46 East interchange and State Route 46 East segments through the City of Paso Robles have been experiencing traffic delays and congestion over recent years, especially during seasonal peak and Friday afternoon p.m. peak periods.

According to Caltrans’ State Route 46 Transportation Concept Report, the study segment of State Route 46 East falls within Segment 2A (post mile 29.761 to post mile 32.154) of the State Route 46 highway corridor. Through this segment, State Route 46 is classified as an Expressway facility whose federal functional classification is “Principal Arterial.” The segment is designated as a “Non-Interstate Strategic Highway Network” route on the National Highway System and is part of the Strategic Highway Network. The segment is a part of the interregional road system and is a strategic interregional corridor and priority interregional highway. The segment is a freight movement route that is designated as a Surface Transportation Assistance Act Terminal Access route. The “20-25-year facility concept” for this segment is a four-lane expressway, and the “ultimate facility concept” is a four-to-six-lane expressway. Per Caltrans’ 2016 count data publications, the State Route 46 segment entering Paso Robles limits (in other words, east of Airport Road) carries an annual average daily traffic of approximately 24,500 vehicles per day with a seasonal peak month demand of 29,000 vehicles per day. Per 2016 Caltrans truck traffic count data, over 4,400 trucks per day (or

approximately 18 percent of the daily vehicular traffic volume) traversed the State Route 46 mainline segment through the study area.

Union Road is a two-lane arterial within the City of Paso Robles that begins at River Road and continues in a southwest-to-northeast direction, crossing Golden Hill Road and connecting to State Route 46 East. The segment of Union Road south of State Route 46 currently carries an annual average daily traffic of over 6,000 vehicles per day and represents one of the main routes into/out of the City. North of State Route 46, Union Road is planned for future northerly extension to intersect with Airport Road as part of planned long-range improvements, which would include the construction of a new grade-separated interchange at State Route 46/Union Road.

Paso Robles Boulevard is an existing two-lane local roadway (driveway) that provides access to/from a few parcels located north of State Route 46 at the existing State Route 46/Union Road intersection.

Airport Road is a two-lane north-south undivided arterial that extends north from State Route 46 East and up to the Paso Robles Municipal Airport and continues farther north through San Luis Obispo County lands to intersect with Estrella Road. Note that a future segment of Airport Road, referred to as "Airport Road South Extension," is planned to extend south from Union Road at/near the City's eastern limits to support long-range north-south circulation at the east end of the City.

Golden Hill Road is a two-lane north-south divided arterial within the City that provides a connection between Creston Road at the south end and locations north of State Route 46 via a signalized full-access intersection at State Route 46. The portions of Golden Hill Road between Rolling Hills Road and north of State Route 46 are planned for future widening to four lanes. Furthermore, the Golden Hill Road/Union Road intersection is planned for a future roundabout-controlled intersection.

Wisteria Lane, Tractor Street, and Dry Creek Road are two-lane roadways providing local east-west circulation and access for existing and planned residential/commercial/industrial development on the north side of the State Route 46 corridor. Wisteria Lane is planned for a future easterly extension to intersect with the future Union Road Extension north of State Route 46.

U.S. Route 101 is a north-south freeway of statewide importance that serves as the principal interregional auto and truck travel route connecting San Luis Obispo County and other parts of the Central Coast with the San Francisco Bay Area to the north and the Los Angeles urban basin to the south. U.S. Route 101 is also known as El Camino Real (The Royal Road), where the alignment along the Central coast approximates the historic trail, which linked the Spanish missions, pueblos, and presidios. Through the City of Paso Robles, U.S. Route 101 is a four-lane divided freeway that forms full-access

interchanges with State Route 46 East in the northern portion of the City and State Route 46 West at the south end of the City. The State Route 46 East/Union Road project study area is located approximately 1.5 miles to the east of the U.S. Route 101/State Route 46 East interchange.

Pedestrian and Bicycle Facilities

The City of Paso Robles' 2018 Bikeway and Pedestrian Master Plan identifies Union Road and future Union Road Extension and Wisteria Lane Extensions as Class 2 bike facilities. A Class 1 future bike trail is also shown along the Huer Huero Creek alignment through and within the vicinity of the study area. The Union Road and Airport Road segments within the study area currently have no sidewalks or pedestrian facilities. The State Route 46/Golden Hill Road intersections are provided with pedestrian crosswalks on three sides and a pedestrian sidewalk on Golden Hill Road north of State Route 46. Golden Hill Road through the study area is a planned Class 2 bike facility, and north of Wisteria Lane, Golden Hill Road is planned to extend as a Class 1 Bike path until Huer Huero Creek.

According to the State Route 46 2017 Transportation Concept Report, there are no restrictions for bicycle use on State Route 46 through the study area. Shoulder width is approximately eight feet or greater, and there are no parallel bike facilities on the route. Consistent eight-foot-wide shoulders are sufficient for accommodating bicycle use on the route. The San Luis Obispo County 2015/2016 County Bikeways Plan does not identify any planned bike routes along State Route 46 study segments in the near future. One way to facilitate bicycling is by providing effective links between bicycling and public transit. The San Luis Obispo Regional Transit Authority provides bus service throughout the County in the incorporated and unincorporated areas. The buses have racks on the front and rear, allowing for six bikes each.

Public Transit Facilities

State Route 46 corridor through the study area falls within the San Luis Obispo Council of Governments' North County Transit Plan. Three separate transit providers provide transit services in North County.

San Luis Obispo Regional Transit Authority operates Regional Transit Authority Route 9, a regional service running hourly north-south between Paso Robles and San Luis Obispo that traverses through the U.S. Route 101 corridor. Currently, State Route 46 is not a transit route served by the Regional Transit Authority. The City of Paso Robles operates three local routes (Routes A, B, and C) on hourly headways that circulate throughout the City, Monday through Saturday. Route C provides service through Cuesta College and Golden Hills Plaza, north of State Route 46, west of the project site.

Truck Routes

Caltrans' 2014 California Freight Mobility Plan identifies State Route 46 as a Highway Freight Network Route and as a part of California's Multimodal State Freight System. State Route 46 is also identified in the California Freight Mobility Plan as a Tier 3 facility. The Association of Monterey Bay Area Governments' U.S. Route 101 Central Coast California Freight Strategy identifies State Route 46 as the top east-west priority for freight and major interregional connecting routes.

According to the State Route 46 2017 Transportation Concept Report, the movement of goods on State Route 46 is a substantial component of traffic volume between U.S. Route 101 and Kern County. This major east-west connector provides service for truck, agricultural, passenger, and recreational travel. State Route 46 supports connectivity for national defense and ensures the efficient movement of troops and equipment for the only west coast Commercial Spaceport—Vandenberg Space Force Base—and four additional military bases along the coast. State Route 46 is also identified as an interregional priority in the Interregional Transportation Strategic Plan, which designates State Route 46 as one of the primary interregional highways that make up the Central Coast-Central Valley east/west connector strategic interregional corridor. Regionally, State Route 46 is discussed in the Caltrans District 5 District System Management Plan. The San Luis Obispo Council of Governments' Regional Transportation Plan also identifies State Route 46 as a route of regional significance. Caltrans has recommended adding California State Route 46 to the National Multimodal Freight Network since State Route 46 meets the Multimodal Freight Network criteria as follows:

- Annual Average Daily Truck Traffic–State Route 46 carries the highest percentage (18 percent) of truck traffic in the region at approximately 4,000 trucks per day (the largest 5-axle/Surface Transportation Assistance Act-type trucks make up 65 percent of this total).
- Intermodal Connector–State Route 46 serves distribution centers and intermodal facilities at intersections with Burlington Northern Santa Fe Railway and Union Pacific rail mainlines, as well as first- and last-mile connectivity to energy production fields and pipeline facilities next to the highway corridor.
- Network Connectivity–State Route 46 is critical for the interregional movement of people and goods, connecting U.S. Route 101 and Interstate 5—two of the three major north-south corridors in California.
- Strategic Highway Network–State Route 46 is designated on the Strategic Highway Network, serving the movement of troops and equipment for national defense.

Rail Facilities

Amtrak Thruway Connecting bus service operates on State Route 46 and provides connections to Amtrak trains. State Route 46 plays a major role in supporting passenger rail transportation thruway bus service. Amtrak has a thruway, connecting bus service travel from Paso Robles to the San Joaquin Valley on State Route 46. This service includes a total of eight bus connections per day to meet trains beginning or ending in other cities; four to the Pacific Surfliner, two to Capitol Corridor trains, and two to San Joaquin trains. An unstaffed intercity rail platform and station were constructed in Paso Robles in 1996; this is the nearest train station to State Route 46.

Aviation Facilities

The Paso Robles Municipal Airport is a general aviation facility serving the North County. The City owns and operates the airport, which is about 1 mile north of the State Route 46/Union Road project site. The airport features 500,000 square feet of industrial buildings in operation, comprised of 40 individual businesses and providing more than 700 jobs in the community. The number of aircraft based at the airport has increased from 55 at the time of the City's acquisition from San Luis Obispo County in 1973 to about 200. The airport is about halfway between Los Angeles and San Francisco and has a service area of more than 2,000 square miles in northern San Luis Obispo and southern Monterey counties. The facility regularly serves a variety of users, including the California Department of Forestry and Fire Protection, California Highway Patrol, the U.S. military, air charter, air ambulance, and more.

Study Area

The study area consists of study intersections along State Route 46 (between Golden Hill Road and Airport Road), Golden Hill Road (between Tractor Street and Dallons Drive), Union Road at the Union Road Connector, and Airport Road at Dry Creek Road. The study facilities are identified below and evaluated during the weekday morning (7:00 a.m. to 9:00 a.m.) and evening (4:00 p.m. to 6:00 p.m.), Friday evening (3:30 p.m. to 5:30 p.m.), and Sunday evening (3:00 p.m. to 5:00 p.m.) peak hours at study intersections and mainline locations.

For the State Route 46/Union Road (primary) study intersection, seasonal/summer peak month traffic counts were collected during the weekday morning (7:00 a.m. to 9:00 a.m.) and evening (4:00 p.m. to 6:00 p.m.), Friday evening (3:30 p.m. to 5:30 p.m.), and Sunday evening (3:00 p.m. to 5:00 p.m.) peak hours.

Study Intersections

- State Route 46/Golden Hill Road
- State Route 46/Union Road/Paso Robles Road

- State Route 46/Airport Road
- Golden Hill Road/Union Road
- Union Road/Union Road Connector
- Golden Hill Road/Tractor Street/Dallons Drive
- Golden Hill Road/Golden Hill Plaza Driveway
- Airport Road/Dry Creek Road
- Union Road Overcrossing/Extension/Tractor Street

Mainline Segments

- State Route 46 Eastbound Mainline (between Golden Hill Road and Union Road)
- State Route 46 Westbound Mainline (between Golden Hill Road and Union Road)

Ramp Junctions

- State Route 46 Eastbound Off-ramp (future)
- State Route 46 Eastbound On-ramp (future)
- State Route 46 Westbound exit to collector-distributor (future)
- State Route 46 Westbound entrance to collector-distributor (future)

Study Scenarios

The proposed project includes two phases, which have different opening years. Phase 1 of the project includes the State Route 46/Union Road Overcrossing, which was originally expected to complete construction and be open to traffic by 2025 and is now anticipated to be open to traffic by 2029. Phase 2 of the proposed project includes the State Route 46/Union Road new interchange, which was originally expected to complete construction and be open to traffic by 2045 and is now anticipated to be open to traffic by 2049. Based on the Technical Memorandum (State Route 46/Union Road/Airport Road Improvements Project Approval and Environmental Documentation Supplement to the Traffic Operations Analysis Report Review of 'Project Opening Year' Traffic Forecasts) dated March 31, 2023, the updated project opening years would not alter the conclusions of the 2019 Traffic Operations Analysis Report. The analysis and conclusions in the 2019 Traffic Operations Analysis Report are summarized below. Existing (2018) Conditions.

- Opening Year 2025 (2029) No-Build Conditions
- Opening Year 2025 (2029) With Phase 1 Conditions
- Design Year 2045 (2049) No-Build Conditions
- Design Year 2045 (2049) With Phase 1 Conditions
- Design Year 2045 (2049) With Phase 2 Conditions

Methodology

Traffic Forecasting Methodology

Travel demand was primarily modeled using the City of Paso Robles' Travel Demand Forecasting Model (the City model). The City model is characterized as a traditional “four-step” travel demand model that uses zonal trip generation, interzonal trip distribution, mode split, and network traffic assignment as its main modeling steps. The City model itself is a “nested” model within the much larger “Regional Travel Demand Model” maintained by the San Luis Obispo Council of Governments, which uses the San Luis Obispo County geographic base. The City of Paso Robles updated and calibrated/validated the City model to 2016-2017 base-year traffic volume conditions, and this model is referred to as the “2017 City model. The 2017 City model uses the year 2017 as the existing/baseline year and 2045 as the future horizon forecast year, consistent with the General Plan. Note that the City model uses the General Plan-based land use forecasts and planned circulation improvements per the 2011 Circulation Element within the City planning area while retaining the San Luis Obispo Council of Governments’ model-based regional/countywide land use and regional network (consistent with San Luis Obispo Council of Governments' 2014 Regional Transportation Plan Update) for areas outside of the City of Paso Robles’ limits. The City model runs using the Transportation Computer Assisted Design 7 transportation planning software. The model provides travel demand forecasts at an annual average daily weekday morning and weekday evening peak hour level for major existing and planned corridors throughout the City and the remainder of the San Luis Obispo Council of Governments region.

Based on discussions with the Project Development Team, the project opening day was originally identified as the year 2025, and the 20-year planning/design horizon year was originally identified as 2045. The Project Development Team now considers the year 2029 to be the most realistic and practical project opening year and 2049 to be the 20-year planning/design horizon year. However, the updated project opening years would not alter the conclusions of the 2019 Traffic Operations Analysis Report.

Future year forecasts were developed for the year 2025 “No-Build” conditions by superimposing a 2 percent per year ambient background State Route 46 through traffic growth on top of existing/base-year traffic counts (collected in 2016) and anticipated traffic growth from known approved/pending land development projects within the vicinity of the State Route 46 study corridor including the following:

- Erskine (Wisteria Lane) Industrial Development: This 466,900-square-foot manufacturing use and 183,200-square-foot business park are on the north of the State Route 46 corridor, at the east end of Wisteria Lane and west of Airport Road. Site access is planned via Wisteria Lane. The

development is expected to generate approximately 4,452 daily trips, including 614 morning peak-hour trips and 603 evening peak-hour trips.

- Destino Paso Resort Hotels: The development is to the east of Airport Road (north of State Route 46) and would include four separate hotels, built in phases, on a 40.3-acre site. The site would obtain access via Airport Road. The project is expected to generate 1,600 daily trips at full build-out.
- Wine Country Recreational Vehicle Resort: This development, which is east of Airport Road, proposes 162 Recreational Vehicle spaces and is expected to generate approximately 900 daily trips.
- Fairfield Inn (formerly known as Marriott Residence Inn): This proposed development is a planned 120-room hotel at the southeast corner of Union Road/Union Road Connector. The project is expected to generate 1,500 daily trips.

Additionally, the following approved/pending development projects were assumed developed by the year 2025: River Oaks, Ayres Hotel, La Quinta Inn and Suites by Wyndham, Buena Vista Apartments, Track 2887, Recreational Vehicle Park, Wine Storage Building, San Antonio Winery Processing Facility, Hilton Garden Inn, San Antonio Winery Development, and Chrysler/Dodge/Jeep/Ram Dealership. The only circulation/access improvements that are assumed by the year 2025 are driveway access connections between local streets and the approved/pending development projects listed above. Specifically, the Erskine Wisteria Lane industrial development is assumed to obtain access only via Wisteria Lane. No access to this development project is assumed via planned future Union Road Extension (north of State Route 46) or Airport Road under the year 2025 “No-Build” conditions. Similarly, the Wine Country Recreational Vehicle resort and Destino Paso Resort Hotels are assumed to only obtain access via Airport Road. Note that the planned long-range future easterly extension of Wisteria Lane to connect with the future Union Road Extension is not assumed under the year 2025 “No-Build” conditions.

Once the year 2025 “No-Build” Base scenario traffic forecasts were developed, the year 2017 City model was used to estimate relative traffic volume redistribution and reassignment within the local study area to develop the year 2025 “Phase 1” traffic forecasts.

The year 2045 forecasts were developed using the 2017 City model’s “year 2045” horizon year model forecasts while adjusting through traffic volumes at the “external gateway” (in other words, State Route 46 segment east of Airport Road) per anticipated traffic growth rates sustainable through the long-term or year 2045, as derived based on a review of historical traffic growth rates and discussions with Caltrans District 5.

For the “gateway” segment of State Route 46 entering the study area (in other words, State Route 46 segment east of Airport Road), annual average daily traffic and peak month Average Daily Traffic data were compiled from Caltrans' annual count data publications (and verified against count station data) for approximately 20 years, extending from the year 1998 through the year 2016. For the State Route 46 segment east of Airport Road (in other words, study area external gateway to the east), approximately 2 percent per year annual growth rate in the ambient background “through” traffic volumes superimposed on top of City General Plan-based local growth within the City of Paso Robles, was regarded as the most reasonable growth rate sustainable through the long-term or year 2045 (in other words, 20 years after project opening day or year 2025). Upon development of year 2045 “No-Build” forecasts, relative traffic volume redistributions and recirculated traffic demands under Phase 1 and Phase 2 circulation and capacity conditions were estimated using the City’s 2045 model. The year 2045 forecasts assume the following planned long-range circulation improvements within the vicinity of the primary study intersection (State Route 46/Union Road) as being “in place” under the year 2045 “No-Build” conditions (refer to Figure 2-9 Planned Future Projects):

Figure 2-9 Planned Future Projects

LEGEND:

- EXISTING CONDITIONS
- PROPOSED PROJECT
- PLANNED FUTURE PROJECTS

Circulation Improvements

- Union Road Extension: Union Road would be extended north as an arterial facility from State Route 46/Union Road intersection to connect to Airport Road at/near or south of the existing Airport Road/Dry Creek Road intersection. This Union Road Extension would intersect with the planned easterly future extension of Wisteria Lane.

Note that Union Road Extension north of State Route 46 (in conjunction with realigned Union Road south of State Route 46) is intended to serve as the primary north-south connector between the State Route 46 corridor and other parts of northeastern Paso Robles, as continued planned development occurs in the vicinity, and capacity/access modifications likely occur at Golden Hill Road and Airport Road intersections with State Route 46. Therefore, the planned capacity on Union Road Extension would vary between two-lane and four-lane arterial sections, contingent upon phased improvements ultimately approved and constructed at State Route 46/Union Road intersection location.

- Wisteria Lane Extension: Wisteria Lane would be extended eastwards as a two-lane divided arterial to intersect with Union Road Extension. Note that Wisteria Lane Extension would help connect, balance, and distribute traffic demands between Golden Hill Road to the west and Union Road Extension to the east. Furthermore, Wisteria Lane Extension to Union Road Extension and Airport Road would need to be in place before the planned future access restrictions or elimination of the State Route 46/Airport Road intersection as part of the State Route 46 East/Union Road Intersection Improvements project.
- Airport Road (South) Extension: A new roadway referred to as “Airport Road South Extension” would be constructed as a two-lane divided arterial extending south from Union Road (from an intersection at/near the eastern limits of the City of Paso Robles) to connect with the southeastern portion of the City. Note that traffic demands on this southerly Airport Road extension would be routed to/from State Route 46 via Union Road only, with no direct access/connection between Airport Road (South) and State Route 46 corridor.
- Gilead Lane Extension: Gilead Lane would be extended eastwards as a two-lane divided arterial that intersects with Airport Road South Extension.
- Dry Creek Road Extension: The City’s General Plan 2011 circulation diagram shows Dry Creek Road’s planned westerly extension to Golden Hill Road and farther west with Buena Vista Drive, and eventually with North River Road. Per the latest discussions with City staff, the Dry Creek Road Extension has been removed from the revised City of Paso Robles Circulation Element. Therefore, consistent with the revised and latest City Circulation Element (adopted by the City in February 2019), the Dry Creek Road Extension is not assumed to be in place under year 2045 circulation conditions.

Other Improvements

- Golden Hill Road Widening: Golden Hill Road is planned for long-range widening to four lanes between State Route 46 and Rolling Hills Road.
- Roundabout at Union Road/Golden Hill Road: A two-lane roundabout is planned to be constructed at the Union Road/Golden Hill Road intersection.
- Airport Road/Dry Creek Road Intersection Improvements: The intersection is planned for future widening to add left-turn lanes and signalization.

Note that the future year (2025 and 2045) travel demand modeling/forecasting process refers to the development of annual average (or typical) weekday morning and weekday evening peak hour level traffic volume forecasts only. The City model and San Luis Obispo Council of Governments' model systems do not include actual models for weekend forecasts or seasonal/peak month forecasts. Therefore, the existing (2016) ground counts based on comparative ratios/factors between annual average weekday evening peak hour counts, annual average Friday evening and Sunday evening counts, and those between annual average and seasonal peak month counts were essentially used as the basis for a prorated estimation of year 2025 and year 2045 weekend and seasonal month traffic forecasts and resulting operations.

Operations Analysis Methodology

Level of Service describes the operating conditions experienced by motorists. Level of Service is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through “F” is assigned to a transportation facility, representing progressively worsening traffic operations. Level of Service values may be determined as a function of one or more types of measures of effectiveness, such as traffic operational delays, densities, speeds, or volume-to-capacity ratios. Level of Service is a qualitative measure of the effect of several factors, including speed and travel time, traffic interruptions, freedom to maneuver, driving comfort, and convenience. There are different types of analyses used for calculating the Level of Service for roadway segments, signalized intersections, unsignalized intersections, and freeway ramp intersections.

Intersections

For signalized and unsignalized intersections, operational analyses were conducted using the methodology outlined in the Transportation Research Board publication, Highway Capacity Manual, Sixth Edition (Highway Capacity Manual 6th Edition, 2016). The Highway Capacity Manual 6th Edition methodology was used to evaluate all study intersections under all scenarios, conditions, or alternatives. The Highway Capacity Manual 6th Edition operational analysis procedure for signalized intersections and all-way stop-controlled intersections calculates an average control delay per vehicle for each movement at the intersection and assigns a Level of Service

designation based upon the average delay, expressed in seconds per vehicle. For two-way stop-controlled intersections, the Level of Service is reported based on delays for the worst-case movement/approach.

The Level of Service thresholds for intersections (signalized, two-way stop-controlled, and all-way stop-controlled) are based on intersection control delays and are summarized in Table 2.15, Level of Service Definitions and Criteria for Intersections. Note that in this analysis, the Highway Capacity Manual 6th Edition based operational Level of Service evaluation of study intersections was completed and reported using the Synchro 10 traffic operations analysis software. The field-observed intersection “Peak Hour Factors” was used under existing conditions intersections’ analysis. Under future year conditions, the Highway Capacity Manual recommended default suburban Peak Hour Factors of 0.92 was used for all study intersections. Under signalized conditions, the Highway Capacity Manual-recommended suburban traffic signal default cycle length of 100 seconds (or more) was used.

Table 2.15 Level of Service Definitions and Criteria for Intersections

Level of Service	Flow Type	Description	Intersection Signal Control Delay (Seconds /Vehicle)	Intersection Two-Way-Stop-Controlled or All-Way-Stop-Controlled Delay (Seconds/ Vehicle)
A	Stable Flow	Free-flow conditions with negligible to minimal delays. Excellent progression with most vehicles arriving during the green phase and not having to stop at all. Nearly all drivers find freedom of operation.	Less than 10	0 to 10
B	Stable Flow	Good progression with slight delays. Short cycle-lengths typical. Relatively more vehicles stop than under Level of Service “A.” Vehicle platoons are formed. Drivers begin to feel somewhat restricted within groups of vehicles.	10 to 20	10 to 15
C	Stable Flow	Relatively higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, although many still pass through without stopping. Most drivers feel somewhat restricted.	20 to 35	15 to 25
D	Approaching Unstable Flow	Somewhat congested conditions. Longer but tolerable delays may result from unfavorable progression, long cycle lengths, and/or high volume-to-capacity ratios. Many vehicles are stopped. Individual cycle failures may be noticeable. Drivers feel restricted during short periods due to temporary backups.	35 to 55	25 to 35

Level of Service	Flow Type	Description	Intersection Signal Control Delay (Seconds /Vehicle)	Intersection Two-Way-Stop-Controlled or All-Way-Stop-Controlled Delay (Seconds/ Vehicle)
E	Unstable Flow	Congested conditions. Significant delays result from poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures occur frequently. There are typically long queues of vehicles waiting upstream of the intersection. Driver maneuverability is very restricted.	55 to 80	35 to 50
F	Forced Flow	Jammed or gridlock type operating conditions. Generally considered to be unacceptable for most drivers. Zero or very poor progression, with over-saturation or high volume-to-capacity ratios. Several individual cycle failures occur. Queue spillovers from other locations restrict or prevent movement.	Greater than 80	Greater than 50

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Roundabouts share the same basic control delay formulation as two-way stop-controlled intersections and all-way stop-controlled intersections, adjusting for the effect of “Yield” control. For roundabout-controlled intersections, Highway Capacity Manual 6th Edition methodology-based evaluation was completed using Signalized and Unsignalized Intersection Design and Research Aid 8 roundabout analysis software. The vehicular Level of Service criteria for roundabouts are shown in Table 2.16, Level of Service Criteria for Roundabouts. As the table notes, Level of Service F is assigned if the volume-to-capacity ratio of a lane exceeds 1.0, regardless of the control delay. For conditions where the volume/capacity ratio is less than 1.0, the roundabout approach and intersection Level of Service are based solely on control delay.

Table 2.16 Level of Service Criteria for Roundabouts

Control Delay per Vehicle (Seconds)	Level of Service by Volume/Capacity Ratio	Control Delay per Vehicle (Seconds)
0 to 10	A	F
10 to 15	B	F
15 to 25	C	F
25 to 35	D	F
35 to 50	E	F
Greater than 50	F	F

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Furthermore, a supplemental traffic signal warrant analysis was completed for unsignalized intersections under existing conditions. The term “signal warrants” refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the need for installing a traffic signal at an unsignalized intersection location. The analysis used signal warrant criteria presented in the 2014 California Manual on Uniform Traffic Control Devices. The California Manual on Uniform Traffic Control Devices signal warrant criteria are based upon several factors, including volume of vehicular and pedestrian traffic, location of school areas, frequency of collisions, et cetera. The peak-hour-volume warrant 3 (urban/rural areas) analysis was used as a representative warrant analysis. Note that California Manual on Uniform Traffic Control Devices indicates that “the satisfaction of a traffic signal warrant or warrants should not in itself require the installation of a traffic control signal.”

Highway and Ramp Junctions

State Route 46 mainline highway/expressway segments and ramp junctions were evaluated based on evaluation of performance measures and technical methodologies recommended in the Caltrans Guide for Preparation of Traffic Impact Studies. Note that State Route 46 is considered a “multilane highway” (with “at-grade” intersections) under existing conditions, with merge/diverge ramp junctions proposed as planned grade separations are constructed in the future. Therefore, both multilane highway methodologies and ramp merge/diverge junction analyses are used in this analysis. Table 2.17, Level of Service Criteria for State Route 46 Mainline Facilities, shows the density-based multilane highways and ramp junction (merge and diverge areas) Level of Service definitions used for evaluation of State Route 46 mainline facilities. The latest version of Highway Capacity Software (Highway Capacity Software 7) was used for the operational evaluation of highway mainline facilities and ramp junctions.

Table 2.17 Level of Service Criteria for State Route 46 Mainline Facilities

Level of Service	Multilane Highway/Freeway Mainline	Level of Service
A	0-11	Less than 10
B	11-18	10-20
C	18-26	20-28
D	26-35	28-25
E	35-45	35-45
F	Greater than 45	Greater than 45 or Demand Exceeds Capacity

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Analysis Evaluation Criteria

The analysis evaluation criteria described below were used to determine if the proposed project would result in any traffic operational deficiencies in the study area.

City of Paso Robles

The 2003 Circulation Element in the General Plan included a City-wide target of Level of Service "D" for all roadways during the peak hours of travel. The 2011 Circulation Element Update changes how the performance of the transportation network is measured by de-emphasizing an auto-centric measure (Level of Service) in favor of measures that represent a more efficient use of resources and support the mobility of people, quality of life, and small-town feel desired by residents. The City of Paso Robles is evaluating each transportation mode and is not using vehicle Level of Service and overall intersection delay as the primary driver for mobility planning or identifying significant environmental impacts. Table 5 of the City's Transportation Impact Analysis (Transportation Impact Analysis Guidelines' Mobility Deficiency Criteria) is shown below.

Caltrans

Caltrans tries to maintain a target Level of Service at the transition between Level of Service "C" and Level of Service "D" on State highway facilities.

TABLE 5: MOBILITY DEFICIENCY CRITERIA

Study Element	Deficiency Determination
Parking	Project increases off-site parking demand or supply near the project site above a level required by the City Zoning Code and/or desirable by the City.
On-site Circulation	Project designs for on-street circulation, access, and parking fail to meet City or industry standard design guidelines. Failure to provide adequate accessibility for service and delivery trucks on-site, including access to loading areas. Project will result in a hazard or potentially unsafe conditions without improvements.
Pedestrian Facilities	Project fails to provide safe and accessible pedestrian connections between project buildings and adjacent streets, trails, and transit facilities. Project adds trips to an existing facility that does not meet current pedestrian design standards.
Bicycle Facilities	Project disrupts existing or planned bicycle facilities or is otherwise incongruent with the City *Bike Master Plan.* Project adds bicycle trips to an existing facility that does not meet current bicycle design standards.
Transit	Project disrupts existing or planned transit facilities and services or conflicts with adopted City non-auto plans, guidelines, policies, or standards. Project adds transit trips to a line already operating at peak hour crush load capacity.
Heavy Vehicles (Trucks and Buses)	A project fails to provide adequate accommodation of forecast heavy traffic or temporary construction-related truck traffic.
Off-site Traffic Operations	Vehicle queues that exceed the existing or planned length of a turn pocket. The proposed project introduces a design feature that substantially increases safety hazards.
Signalized Intersection Traffic Control	Per General Plan, vehicle LOS is not used for deficiency identification.
Unsignalized Intersection Traffic Control	Addition of project traffic causes an all-way stop-controlled or side street stop-controlled intersection to: 1) operate at LOS E or F overall or the worst-case movement, and 2) meet the Caltrans signal warrant criteria.
General Plan Consistency	Evaluate the project against mobility, safety, and other related goals, policies, and actions set forth in the General Plan.
Other Subject Areas	Consider other areas on a case-by-case basis (e.g., construction impacts).
Requirements for Other Jurisdictions	The project exceeds established deficiency thresholds for transportation facilities and services under the jurisdiction of other agencies.

Existing Traffic Operations

Intersection Operations

Existing (2018) conditions' study intersections' Level of Service were computed under existing intersection lane geometrics and control facilities. As

shown in Table 2.18, Existing Conditions Intersections Levels of Service, the State Route 46/Union Road/Paso Robles Boulevard intersection, as well as the State Route 46/Airport Road intersection (both existing "at-grade" unsignalized intersections), are both currently operating at "worst-case" movement/approach peak hour Level of Service "F" conditions, under practically all peak periods, inclusive of annual average and seasonal/peak month weekday morning peak hour, weekday evening peak hour, Friday evening peak hour, and Sunday peak hour conditions. Note that peak hour volume-based signal warrant criteria are met at these existing unsignalized intersections; however, signalization is not considered a feasible/ acceptable improvement alternative for these State Route 46 mainline intersections. Signals would be infeasible since they would impede through traffic flow and progression along State Route 46, cause queuing and spillovers between Golden Hill Road and Union Road signalized intersections, and would not substantially improve State Route 46 mainline capacity or operations (per the 2014 Project Study Report/Project Development Support completed for the State Route 46 East/Union Road Intersection Improvements project). The signalized State Route 46/Golden Hill Road intersection is currently operating at peak hour Level of Service "D" or better conditions under critical peak hour periods.

Local street (in other words, City of Paso Robles' jurisdiction) study intersections within the study area are currently generally operating at peak hour Level of Service "D" or better conditions, except the Golden Hill Road/Union Road intersection, which is currently operating at weekday morning peak hour, weekday evening peak hour, and Friday evening peak hour Level of Service "F" conditions with the existing all-way-stop-control configuration, Union Road/Union Road connector intersection that is operating at unsignalized Level of Service "F" under weekday evening peak hour conditions, and Airport Road/Dry Creek Road intersection that is operating at weekday and Friday evening peak hour unsignalized Level of Service "E" conditions. The City has planned improvements for a future roundabout at the Golden Hill/Union Road intersection. It may be reiterated here that most recent City General Plan Circulation policies are no longer solely focused on vehicular Level of Service thresholds.

Mainline Operations

Table 2.19, Existing Conditions–State Route 46 Mainline Facilities Levels of Service, provides data related to the existing operational characteristics of the State Route 46 mainline in both directions between Golden Hill Road and Union Road for a range of peak periods (weekday morning, weekday evening, Friday evening, and Sunday evening) on an annual average and peak month basis. As shown in Table 2.19, the existing State Route 46 directional mainline segments through the study area currently operate at an acceptable peak hour Level of Service "C" or better conditions with the existing four-lane divided highway/expressway (in other words, two through

lanes each direction) section during all peak periods, on both an annual average and peak month basis. Based on results from Tables 2.18 and 2.19, current Levels of Service for the existing four-lane highway section, by itself, have adequate operational capacity to accommodate existing directional peak hour traffic demands at all times; however, the “at-grade” intersections/conflicts along the corridor represent the isolated critical congestion “spots” that govern overall traffic operations along the corridor.

This page intentionally left blank

Table 2.18 Existing Conditions Intersections Levels of Service

Number	Study Intersection	Control Type	Demand Conditions	Weekday Morning Peak Hour Delay (Seconds per Vehicle)	Weekday Morning Peak Hour Level of Service	Weekday Morning Peak Hour Warrant Met?	Weekday Evening Peak Hour Delay (Seconds per Vehicle)	Weekday Evening Peak Hour Level of Service	Weekday Evening Peak Hour Warrant Met?	Friday Evening Peak Hour Delay (Seconds Per Vehicle)	Friday Evening Peak Hour Level of Service	Friday Evening Peak Hour Warrant Met?	Sunday Evening Peak Hour Delay (Seconds per Vehicle)	Sunday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Warrant Met?
1	State Route 46/ Golden Hill Road	Signal	Annual Average	25.9	C	Not Applicable	29.2	C	Not Applicable	32.6	C	Not Applicable	21.8	C	Not Applicable
1	State Route 46/ Golden Hill Road	Signal	Peak Month	25.2	C	Not Applicable	30.7	C	Not Applicable	40.7	D	Not Applicable	23.5	C	Not Applicable
2	State Route 46/ Union Road/Paso Robles Boulevard	Two-Way Stop-Controlled	Annual Average	Overflow	F	Yes	Overflow	F	Yes	Overflow	F	Yes	16.6	C	No
2	State Route 46/ Union Road/Paso Robles Boulevard	Two-Way Stop-Controlled	Peak Month	Overflow	F	Yes	Overflow	F	Yes	Overflow	F	Yes	107.2	F	Yes
3	State Route 46/ Airport Road	Two-Way Stop-Controlled	Annual Average	Overflow	F	Yes	56.4	F	Yes	Overflow	F	Yes	15.1	C	No
3	State Route 46/ Airport Road	Two-Way Stop-Controlled	Peak Month	99.5	F	Yes	139.0	F	Yes	Overflow	F	Yes	41.4	E	Yes
4	Golden Hill Road/Union Road	All-Way Stop-Controlled	Annual Average	55.4	F	Yes	92.3	F	Yes	75.8	F	Yes	12.3	B	No
5	Union Road/ Union Road Connector	Two-Way Stop-Controlled	Annual Average	23.3	C	No	25.3	D	Yes	24.1	C	No	11.1	B	No
6	Golden Hill Road/Tractor Street/Dallons Drive	Two-Way Stop-Controlled	Annual Average	18.1	C	No	14.9	B	No	14.1	B	No	9.6	A	No
7	Golden Hill Road/Golden Hill Plaza Driveway	Signal	Annual Average	26.0	C	Not Applicable	26.3	C	Not Applicable	26.5	C	Not Applicable	24.0	C	Not Applicable
8	Airport Road/ Dry Creek Road	Two-Way Stop-Controlled	Annual Average	13.4	B	No	20.7	C	No	25.9	D	No	9.5	A	No

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Notes: Worst-case movement/approach delays are reported for two-way stop-controlled intersections. For signalized intersections and all-way stop-controlled intersections, average control delays for the whole intersection are reported. All reported delays and Level of Service values are computed values from Synchro 10 software. In the table above, overflow means delays that exceed 180 seconds per vehicle. Warrant means Signal Warrant Criteria per the California Manual on Uniform Traffic Control Devices for Streets and Highways, Chapter 4C, Peak Hour Warrant (Urban/Rural Areas).

Table 2.19 Existing Conditions–State Route 46 Mainline Facilities Levels of Service

Mainline Segment	Number of Mainline Lanes	Volume Condition	Weekday Morning Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Morning Peak Hour Level of Service	Weekday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Evening Peak Hour Level of Service	Friday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Friday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Sunday Evening Peak Hour Level of Service
State Route 46 Eastbound Mainline (Between Golden Hill Road and Union Road)	2	Annual Average	11.0	A	13.3	B	17.3	B	12.5	B
State Route 46 Eastbound Mainline (Between Golden Hill Road and Union Road)	2	Peak Month	10.6	A	16.5	B	19.1	C	21.2	C
State Route 46 Westbound Mainline (Between Golden Hill Road and Union Road)	2	Annual Average	11.6	B	14.8	B	18.9	C	9.8	A
State Route 46 Westbound Mainline (Between Golden Hill Road and Union Road)	2	Peak Month	10.7	A	17.4	B	22.6	C	15.1	B

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Traffic Safety Review

Traffic Accident Surveillance and Analysis System–Transportation Systems Network (Table B) collision data summary and Traffic Accident Surveillance and Analysis System Selective Record Retrieval data records for the State Route 46/Union Road intersection/vicinity were obtained from Caltrans District 5 for the most recently available data period (extending from August 1, 2015, through December 31, 2017) and summarized in Tables 2.20a and 2.20b, Collision Data Summary (August 1, 2015, through December 31, 2017), below.

As shown in Table 2.20a, over the 29-month data period, the study intersection/vicinity experienced a total of 11 collisions, with four persons reported “injured” in those collisions. Six of those collisions were reported within a 12-month period (year 2016). There were three sideswipe collisions, one rear-end collision, five broadside, and two hit-object types; “Failure to Yield” was the most frequently reported (five out of 11) “primary collision factor” for these collisions.

Five out of 11 collisions were reported “in an intersection.” All collisions were reported under “no unusual” roadway conditions, with seven out of 11 under daylight, nine out of 11 in clear weather, and 10 out of 11 under dry pavement conditions.

As shown in Table 2.20b, the study segment/location experienced actual rates for “Fatal plus Injury” and total collisions that exceeded statewide average rates for similar facilities, with actual rates approximately double the statewide average rates. It appears that the existing unsignalized control conditions and high speeds and through traffic volumes on State Route 46 may be contributing to the relatively high number of collisions occurring at/through the State Route 46/Union Road Intersection. In Table 2.20b, bold text indicates actual rates that are higher than average rates.

Table 2.20a Collision Data Summary (August 1, 2015, Through December 31, 2017)

State Route 46 Post Mile Location	Total Number of Collisions	Number of Fatalities	Number of Injured	Number of Fatalities Plus Injuries	Number of Multivehicle Collisions	Number of Collisions in Wet Conditions	Number of Collisions in Dark Conditions	Number of Persons Killed	Number of Persons Injured
05-SLO-046 post mile 31.800 Union Road	11	0	4	4	9	1	4	0	4

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Table 2.20b Collision Data Summary (August 1, 2015, Through December 31, 2017)

State Route 46 Post Mile Location	Actual Number of Fatalities per Million Vehicle Miles	Actual Number of Fatalities Plus Injuries per Million Vehicle Miles	Actual Total Number of Collisions per Million Vehicle Miles	Average Number of Fatalities per Million Vehicle Miles	Average Number of Fatalities Plus Injuries per Million Vehicle Miles	Average Total Number of Collisions per Million Vehicle Miles
05-SLO-046 Post Mile 31.800 Union Road	0.0	**0.1**	**0.27**	0.001	0.06	0.13

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Environmental Consequences

Temporary Impacts

No-Build Alternative

Under this alternative, no improvements would be made to the existing State Route 46/Union Road intersection. As a result, the No-Build Alternative would not result in temporary impacts related to traffic and circulation.

Build Alternative (Phases 1 and 2)

Project construction would result in temporary traffic effects related to the circulation of vehicles, bicyclists, and pedestrians in the project area. The project is anticipated to be constructed in two phases.

The first phase, constructing the Union Road Overcrossing/Extension, is anticipated to take approximately 24 months. Since the proposed Tractor Street and Union Road Overcrossing/Extension (north of State Route 46) would be constructed on new alignments, the existing Tractor Street would remain operational except for tie-in work conforming and joining existing pavements that need minimum traffic control. The Paso Robles Boulevard connection to State Route 46 would be relocated east of the new overcrossing. South of State Route 46, the existing Union Road connection to State Route 46 would be relocated west of the new overcrossing. The existing portion of Union Road that travels in a northwest/southeast direction would be removed, and the portion of Union Road that travels in a northeast/southwest direction would be realigned to connect with the proposed Union Road Connector and roundabout. Medians would be installed along State Route 46 at Union Road Connector, Paso Robles Boulevard, and Airport Road.

The time needed to complete construction of the realignment of Union Road, south of State Route 46, is estimated to be approximately 4 to 6 months of work. Therefore, construction-related traffic delays are anticipated to be minimal. Access to the local street network would be continuously maintained.

Construction of Phase 1 of this project would not impact the operational performance of State Route 46.

Local Street Operational Performance Between Phase 1 and Phase 2 of the Project

Since Phase 1 would not provide full access to and from State Route 46 in both directions, the existing State Route 46/Golden Hill Road intersection would be retained in its current configuration as a signalized, full-access, at-grade intersection. Before the implementation of Phase 2, incremental delays are projected at the State Route 46/Golden Hill Road intersection, with year 2025 weekday evening and Friday evening peak hour Level of Service “E” or worse conditions projected under both annual average and summer/peak month conditions. All other study intersections would operate at acceptable Level of Service conditions under the 2025 Build scenario.

Phase 2, construction of the State Route 46/Union Road interchange, is anticipated to take approximately 24 months. Phase 2 would generally include widening the Union Road Overcrossing/Extension (both north and south of State Route 46), a portion of Tractor Street near the roundabout connection, the roundabout located south of State Route 46, and Union Road near the west and east roundabout connections. The Union Road Connector, Paso Robles Boulevard, and Airport Road would be converted to dead-end roadways, and the Union Road Overcrossing/Extension would remain operational during the interchange construction process. Along State Route 46, the Huer Huero Creek Bridge would be widened, eastbound and westbound on-ramps and off-ramps would be constructed, and a new median would be installed. Full highway and lane closures would be required during night times and on weekends to accommodate these activities.

As noted in Chapter 1 of this Initial Study/Environmental Assessment, the project would include the preparation and implementation of a Transportation Management Plan during the Plans, Specifications, and Estimates phase. The Caltrans Transportation Management Plan Guidelines identify the processes, roles, and responsibilities for preparing and implementing Transportation Management Plans and useful strategies for reducing congestion and managing work zone traffic impacts. The main objective of the Transportation Management Plan is to maintain safe movement for vehicles, pedestrians, and bicyclists through the construction zone and minimize traffic delays during the construction period.

The Transportation Management Plan would include, but not be limited to, the following 12 major strategies:

- Public information/public awareness campaign
- Incident management
- Freeway Service Patrol
- California Highway Patrol
- Construction Zone Enhanced Enforcement Program
- Portable Changeable Message Signs
- Traffic Control Improvements
- Street Improvements, Signing, and Striping
- Comprehensive Geographic Information System/Database/Mapping System
- Coordination of Construction Schedules
- Contingency Plans
- Workshops

With the implementation of the Transportation Management Plan for the proposed project, it is expected that adverse, temporary effects related to traffic, pedestrian, and bicyclists would not occur.

Permanent Impacts

As noted above, the following scenarios are considered in the traffic analysis:

- Existing (2018) Conditions
- Opening Year 2025 No-Build Conditions
- Opening Year 2025 With Phase 1 Conditions
- Design Year 2045 No-Build Conditions
- Design Year 2045 With Phase 1 Conditions
- Design Year 2045 With Phase 2 Conditions

Future traffic volumes and turn movements for all study scenarios for State Route 46 at Union Road, Paso Robles Boulevard, Airport Road, and Golden Hill Road, as well as the intersections of Golden Hill Road and Union Road, Union Road and Union Road Connector, Golden Hill Road, Tractor Street, Dallons Drive, Golden Hill Plaza Drive, and Airport Road and Dry Creek Road, are presented in this section of the Initial Study/Environmental Assessment.

No-Build Alternative

Opening Year 2025: As shown in Table 2.21, Year 2025 “No-Build” Conditions Intersections Levels of Service, similar to existing conditions, generally unacceptable peak hour Level of Service “F” operations are projected to remain/escalate at the unsignalized “at-grade” intersections of State Route 46/Union Road and State Route 46/Airport Road through the year 2025 “No-Build” conditions. The signalized State Route 46/Golden Hill Road intersection is projected to operate at an annual average weekday evening and Friday evening peak hour and peak month weekday and Friday evening peak hour periods Level of Service “E” or worse conditions. Therefore, it is expected that as local development continues to occur and State Route 46 mainline traffic volumes continue to grow, even the existing signalized full-access intersection at State Route 46/Golden Hill Road would experience operational capacity issues by the year 2025.

As shown in Table 2.22, Year 2025 “No-Build” Conditions–State Route 46 Mainline Facilities Levels of Service, State Route 46 directional mainline segments through the study area are projected to operate at year 2025 peak hour Level of Service “C” or better conditions with the existing four-lane divided highway/expressway section (in other words, two through lanes in each direction), except for the westbound direction, which is projected to operate at year 2025 peak month Friday evening peak hour Level of Service “D” conditions. However, the existing State Route 46 “at-grade” intersection

operations indicated in Table 2.18 are expected to govern critical operations along the study corridor through the year 2025.

Year 2045 "No-Build": As shown in Table 2.23, Year 2045 "No-Build" Conditions Intersections Levels of Service, a general failure of "at-grade" intersection operations (in other words, peak hour Level of Service "F" with overflow delays) is projected along all State Route 46 "at-grade" study intersections under the year 2045 "No-Build" conditions, including the signalized State Route 46/Golden Hill Road intersection, under all critical peak hour periods, and under both annual average and seasonal/peak month conditions.

State Route 46 mainline facilities were evaluated under Year 2045 "No-Build" traffic volume conditions. As shown in Table 2.24, Year 2045 "No-Build" Conditions–State Route 46 Mainline Facilities Levels of Service, under the projected Year 2045 "No-Build" mainline traffic demand volumes, the State Route 46 highway directional segments (in other words, two through lanes in each direction) are projected to operate at peak hour Level of Service "D" or better conditions under all analysis scenarios, except the State Route 46 Westbound mainline segment, which is projected to operate at year 2045 "No-Build" conditions Friday evening peak hour Level of Service "E" conditions. While the existing highway may be generally projected to provide sufficient "throughput" capacity to accommodate Year 2045 "No-Build" demands with the existing four-lane highway/expressway section, as shown in Table 2.24, the projected Year 2045 "No-Build" Level of Service "F" conditions at all "at-grade" State Route 46 study intersections along the corridor are expected to govern State Route 46 mainline capacity and operations.

In Tables 2.21 through 2.24, worst-case movement/approach delays are reported for two-way stop-controlled intersections. For signalized intersections and all-way stop-controlled intersections, average control delays for the whole intersection are reported. All reported delays and Level of Service values are computed values from Synchro 10 software. Overflow means delays that exceed 180 seconds per vehicle.

Table 2.21 Year 2025 "No-Build" Conditions Intersections Levels of Service

Number	Study Intersection	Control Type	Demand Conditions	Weekday Morning Peak Hour Delay (Seconds per Vehicle)	Weekday Morning Peak Hour Level of Service	Weekday Evening Peak Hour Delay (Seconds per Vehicle)	Weekday Evening Peak Hour Level of Service	Friday Evening Peak Hour Delay (Seconds per Vehicle)	Friday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Delay (Seconds per Vehicle)	Sunday Evening Peak Hour Level of Service
1	State Route 46/Golden Hill Road	Signal	Annual Average	33.6	C	61.3	E	32.6	C	21.8	C
1	State Route 46/Golden Hill Road	Signal	Peak Month	32.6	C	86.2	F	40.7	D	23.5	C
2	State Route 46/Union Road/Paso Robles Boulevard	Two-Way-Stop-Controlled	Annual Average	Overflow	F	Overflow	F	Overflow	F	16.6	C
2	State Route 46/Union Road/Paso Robles Boulevard	Two-Way-Stop-Controlled	Peak Month	Overflow	F	Overflow	F	Overflow	F	107.2	F
3	State Route 46/Airport Road	Two-Way-Stop-Controlled	Annual Average	Overflow	F	Overflow	F	Overflow	F	15.1	C
3	State Route 46/Airport Road	Two-Way-Stop-Controlled	Peak Month	87.8	F	Overflow	F	Overflow	F	41.4	E
4	Golden Hill Road/Union Road	All-Way-Stop-Controlled	Annual Average	24.6	C	17.9	C	75.8	F	12.3	B

Number	Study Intersection	Control Type	Demand Conditions	Weekday Morning Peak Hour Delay (Seconds per Vehicle)	Weekday Morning Peak Hour Level of Service	Weekday Evening Peak Hour Delay (Seconds per Vehicle)	Weekday Evening Peak Hour Level of Service	Friday Evening Peak Hour Delay (Seconds per Vehicle)	Friday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Delay (Seconds per Vehicle)	Sunday Evening Peak Hour Level of Service
5	Union Road/Union Road Connector	Two-Way Stop-Controlled	Annual Average	30.0	D	104.7	F	24.1	C	11.1	B
6	Golden Hill Road/Tractor Street/Dallons Drive	Two-Way Stop-Controlled	Annual Average	123.5	F	89.4	F	14.1	B	9.6	A
7	Golden Hill Road/Golden Hill Plaza Driveway	Signal	Annual Average	25.9	C	28.8	C	26.5	C	24.0	C
8	Airport Road/Dry Creek Road	Two-Way Stop-Controlled	Annual Average	13.6	B	20.8	C	25.9	D	9.5	A

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Table 2.22 Year 2025 "No-Build" Conditions–State Route 46 Mainline Facilities Levels of Service

Mainline Segment	Number of Mainline Lanes	Volume Condition	Weekday Morning Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Morning Peak Hour Level of Service	Weekday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Evening Peak Hour Level of Service	Friday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Friday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Sunday Evening Peak Hour Level of Service
State Route 46 Eastbound Mainline (Between Golden Hill Road and Union Road)	2	Annual Average	13.8	B	16.9	B	21.3	C	15.5	B
State Route 46 Eastbound Mainline (Between Golden Hill Road and Union Road)	2	Peak Month	13.2	B	20.6	C	23.4	C	25.4	C
State Route 46 Westbound Mainline (Between Golden Hill Road and Union Road)	2	Annual Average	15.6	B	18.7	C	23.7	C	12.4	B
State Route 46 Westbound Mainline (Between Golden Hill Road and Union Road)	2	Peak Month	14.7	B	21.8	C	28.0	D	18.9	C

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

This page intentionally left blank

Table 2.23 Year 2045 "No-Build" Conditions Intersections Levels of Service

Number	Study Intersection	Control Type	Demand Conditions	Weekday Morning Peak Hour Delay (Seconds per Vehicle)	Weekday Morning Peak Hour Level of Service	Weekday Evening Peak Hour Delay (Seconds per Vehicle)	Weekday Evening Peak Hour Level of Service	Friday Evening Peak Hour Delay (Seconds per Vehicle)	Friday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Delay (Seconds per Vehicle)	Sunday Evening Peak Hour Level of Service
1	State Route 46/Golden Hill Road	Signal	Annual Average	64.5	E	157.6	F	246.7	F	37.3	D
1	State Route 46/Golden Hill Road	Signal	Peak Month	54.5	D	Overflow	F	Overflow	F	89.0	F
2	State Route 46/Union Road/Paso Robles Boulevard	Two-Way Stop-Controlled	Annual Average	Overflow	F	Overflow	F	Overflow	F	Overflow	F
2	State Route 46/Union Road/Paso Robles Boulevard	Two-Way Stop-Controlled	Peak Month	Overflow	F	Overflow	F	Overflow	F	Overflow	F
3	State Route 46/Airport Road	Two-Way Stop-Controlled	Annual Average	Overflow	F	Overflow	F	Overflow	F	Overflow	F
3	State Route 46/Airport Road	Two-Way Stop-Controlled	Peak Month	Overflow	F	Overflow	F	Overflow	F	Overflow	F
4	Golden Hill Road/Union Road	Roundabout	Annual Average	23.4	C	25.6	D	22.8	C	6.3	A
5	Union Road/Union Road Connector	Two-Way Stop-Controlled	Annual Average	Overflow	F	Overflow	F	Overflow	F	102.4	F
6	Golden Hill Road/Tractor Street/Dallons Drive	Two-Way Stop-Controlled	Annual Average	Overflow	F	Overflow	F	Overflow	F	12.8	B
7	Golden Hill Road/Golden Hill Plaza Driveway	Signal	Annual Average	26.4	C	30.4	C	30.1	C	24.5	C
8	Airport Road/Dry Creek Road	Signal	Annual Average	15.3	B	22.4	C	19.5	C	10.6	B
9	Union Road Overcrossing/Extension/Tractor Street	Roundabout	Annual Average	6.5	A	7.6	A	7.9	A	4.6	A

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Table 2.24 Year 2045 "No-Build" Conditions–State Route 46 Mainline Facilities Levels of Service

Mainline Segment	Number of Mainline Lanes	Volume Condition	Weekday Morning Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Morning Peak Hour Level of Service	Weekday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Evening Peak Hour Level of Service	Friday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Friday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Sunday Evening Peak Hour Level of Service
State Route 46 Eastbound Mainline (Between Golden Hill Road and Union Road)	2	Annual Average	20.7	C	22.0	C	28.1	D	20.2	C
State Route 46 Eastbound Mainline (Between Golden Hill Road and Union Road)	2	Peak Month	19.8	C	26.9	D	30.8	D	33.4	D
State Route 46 Westbound Mainline (Between Golden Hill Road and Union Road)	2	Annual Average	19.7	C	28.6	C	36.8	E	18.9	C
State Route 46 Westbound Mainline (Between Golden Hill Road and Union Road)	2	Peak Month	22.7	C	33.4	D	43.6	E	29.1	D

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

This page intentionally left blank

Build Alternative (Phases 1 and 2)

Opening Year 2025 With "Phase 1": As shown in Table 2.25, Year 2025 With "Phase 1" Conditions Intersections Level of Service, with the elimination of State Route 46/Union Road "at-grade" intersection under Phase 1, incremental delays are projected at the State Route 46/Golden Hill Road signalized full-access intersection, with Year 2025 weekday evening (an increased annual average delay of 4.6 seconds per vehicle and an increased peak month delay of 2.4 seconds per vehicle) and Friday evening peak hour (an increased annual average delay of 73.4 seconds per vehicle; an increased peak month delay of 102.1 seconds per vehicle) unacceptable Level of Service "E" or worse conditions projected under both annual average and summer/peak month conditions. The State Route 46 Eastbound Ramps Connector/Union Road intersection is projected to operate at an acceptable signalized Level of Service "C" or better under Year 2025 conditions. With access restriction to "right turns only" movements, the State Route 46/Airport Road intersection is projected to operate at an acceptable peak hour Level of Service "C" or better conditions through Year 2025, under all analysis time periods. The "new" intersections of Union Road/Union Road Overcrossing/Extension on the south side of State Route 46 and the Union Road/Tractor Street intersection on the north side of State Route 46 are projected to operate at an acceptable peak hour Level of Service "B" or better conditions with the proposed roundabout control configurations for these intersections.

As shown in Tables 2.26a and 2.26b, Year 2025 With "Phase 1" Conditions–State Route 46 Mainline Facilities Level of Service, the State Route 46 directional mainline segments and the State Route 46 eastbound ramp junctions are projected to operate at an acceptable peak hour Level of Service "C" or better conditions under Year 2025 With "Phase 1" conditions.

Design Year 2045 With "Phase 1": As shown in Table 2.27, Year 2045 With "Phase 1" Conditions Intersections Levels of Service, the three-lane overcrossing itself is projected to provide adequate capacity to carry projected demand (10,500 annual average daily traffic) through the Year 2045; therefore, Phase 1 is anticipated to provide adequate operational life through the Year 2045 (in other words, 20 years from project opening year, 2025). Note that Year 2045 With "Phase 1" operations indicated in Table 2.27 assumes the "project opening day" configuration for Phase 1 (year 2025) through the Year 2045; in other words, Union Road Overcrossing/Extension is retained as a three-lane overcrossing through the Year 2045.

Nearby intersections, such as the State Route 46/Golden Hill Road signalized full-access "at-grade" intersection and the Union Road/Union Road Connector (State Route 46 Eastbound Ramps) intersection, are projected to operate at unacceptable signalized peak hour Level of Service "F" conditions during some critical peak hour periods under the Year 2045 With "Phase 1" conditions.

In Tables 2.25 through 2.28, worst-case movement/approach delays are reported for two-way stop-controlled intersections. For signalized intersections and all-way stop-controlled intersections, average control delays for the whole intersection are reported. All reported delays and Level of Service values are computed values from Synchro 10 software. For roundabout-controlled intersections, delay values are reported using Signalized and Unsignalized Intersection Design and Research Aid 8 software. Overflow means delays that exceed 180 seconds per vehicle. The table entry “2 plus 1” refers to two mainline lanes plus one auxiliary or collector-distributor lane.

Table 2.25 Year 2025 With "Phase 1" Conditions Intersections Levels of Service

Number	Study Intersection	Control Type	Demand Conditions	Weekday Morning Peak Hour Delay (Seconds per Vehicle)	Weekday Morning Peak Hour Level of Service	Weekday Evening Peak Hour Delay (seconds per vehicle)	Weekday Evening Peak Hour Level of Service	Friday Evening Peak Hour Delay (Seconds per Vehicle)	Friday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Delay (Seconds per Vehicle)	Sunday Evening Peak Hour Level of Service
1	State Route 46/Golden Hill Road	Signal	Annual Average	44.2	D	65.9	E	106	F	28.2	C
1	State Route 46/Golden Hill Road	Signal	Peak Month	36.1	D	88.6	F	142.8	F	42.7	D
2A	Union Road/Union Road Connector (State Route 46 Eastbound On-Ramps/Off-Ramps)	Signal	Annual Average	23.8	C	18.1	B	18.7	B	11.3	B
3	State Route 46/Airport Road	Two-Way Stop-Controlled	Annual Average	14.1	B	15.3	C	18.6	C	11.5	B
3	State Route 46/Airport Road	Two-Way Stop-Controlled	Peak Month	13.4	B	18.2	C	24.3	C	14.9	B
4	Golden Hill Road/Union Road	All-Way Stop-Controlled	Annual Average	24.8	C	26.6	D	16.3	C	6.0	A
5	Union Road/Union Road Overcrossing/Extension	Roundabout	Annual Average	5.6	A	4.8	A	4.9	A	3.7	A
6	Golden Hill Road/Tractor Street/Dallons Drive	Two-Way Stop-Controlled	Annual Average	Overflow	F	Overflow	F	Overflow	F	10.9	B
7	Golden Hill Road/Golden Hill Plaza Driveway	Signal	Annual Average	25.3	C	42.9	D	38.2	D	26.8	C
8	Airport Road/Dry Creek Road	Two-Way Stop-Controlled	Annual Average	13.6	B	20.8	C	21.8	C	9.6	A
9	Union Road Overcrossing/Extension/Tractor Street	Roundabout	Annual Average	6.2	A	5.7	A	5.4	A	3.9	A

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Table 2.26a Year 2025 With "Phase 1" Conditions–State Route 46 Mainline Facilities Levels of Service

Mainline Segment	Number of Mainline Lanes	Volume Condition	Weekday Morning Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Morning Peak Hour Level of Service	Weekday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Evening Peak Hour Level of Service	Friday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Friday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Sunday Evening Peak Hour Level of Service
State Route 46 Eastbound Mainline (Between Golden Hill Road and Union Road Overcrossing/Extension)	2 plus 1	Annual Average	11.2	B	13.9	B	17.4	B	12.7	B
State Route 46 Eastbound Mainline (Between Golden Hill Road and Union Road Overcrossing/Extension)	2 plus 1	Peak Month	10.8	A	16.8	B	19.2	C	20.8	C
State Route 46 Westbound Mainline (Between Golden Hill Road and Union Road Overcrossing/Extension)	2 plus 1	Annual Average	16.2	B	17.3	B	22.0	C	11.4	B
State Route 46 Westbound Mainline (Between Golden Hill Road and Union Road Overcrossing/Extension)	2 plus 1	Peak Month	15.3	B	20.0	C	25.8	C	17.2	B

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

This page intentionally left blank

Table 2.26b Year 2025 With "Phase 1" Conditions–State Route 46 Mainline Facilities Levels of Service

Ramp Junctions	Junction Type	Volume Condition	Weekday Morning Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Morning Peak Hour Level of Service	Weekday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Evening Peak Hour Level of Service	Friday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Friday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Sunday Evening Peak Hour Level of Service
State Route 46 Eastbound Off-Ramp	Diverge	Annual Average	11.7	A	14.4	B	18.3	B	13.2	B
State Route 46 Eastbound Off-Ramp	Diverge	Peak Month	11.3	A	17.6	B	19.9	B	21.7	B
State Route 46 Eastbound On-Ramp	Merge	Annual Average	9.1	A	13.7	A	17.3	A	12.6	A
State Route 46 Eastbound On-Ramp	Merge	Peak Month	8.7	A	16.7	A	19.1	B	20.9	B

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

This page intentionally left blank

Table 2.27 Year 2045 With "Phase 1" Conditions Intersections Levels of Service

Number	Study Intersection	Control Type	Demand Conditions	Weekday Morning Peak Hour Delay (Seconds per Vehicle)	Weekday Morning Peak Hour Level of Service	Weekday Evening Peak Hour Delay (Seconds per Vehicle)	Weekday Evening Peak Hour Level of Service	Friday Evening Peak Hour Delay (Seconds per Vehicle)	Friday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Delay (Seconds per Vehicle)	Sunday Evening Peak Hour Level of Service
1	State Route 46/Golden Hill Road	Signal	Annual Average	98.7	F	172.7	E	Overflow	F	37.3	D
1	State Route 46/Golden Hill Road	Signal	Peak Month	84.5	F	Overflow	F	Overflow	F	109.6	F
2A	Union Road/Union Road Connector (State Route 46 Eastbound On-Ramp/Off-Ramp)	Signal	Annual Average	109.7	F	29.8	C	31.8	C	14.6	B
3	State Route 46/Airport Road	Two-Way Stop-Controlled	Annual Average	20.1	C	20.3	C	28.8	D	13.8	B
3	State Route 46/Airport Road	Two-Way Stop-Controlled	Peak Month	20.1	C	24.5	C	42.7	E	15.6	C
4	Golden Hill Road/Union Road	All-Way Stop-Controlled	Annual Average	25.0	D	24.2	C	23.5	C	6.2	A
5	Union Road/Union Road Overcrossing/Extension	Roundabout	Annual Average	19.5	C	11.4	B	12.4	B	5.4	A
6	Golden Hill Road/Tractor Street/Dallons Drive	Two-Way Stop-Controlled	Annual Average	Overflow	F	Overflow	F	Overflow	F	13.4	B
7	Golden Hill Road/Golden Hill Plaza Driveway	Signal	Annual Average	29.0	C	100.4	F	82.9	F	26.6	C
8	Airport Road/Dry Creek Road	Two-Way Stop-Controlled	Annual Average	15.3	B	22.4	C	19.5	C	10.6	B
9	Union Road Overcrossing/Extension/Tractor Street	Roundabout	Annual Average	10.0	A	9.7	A	10.3	B	5.2	A

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Table 2.28 Year 2025 With "Phase 1" Conditions–State Route 46 Mainline Facilities Levels of Service

Mainline Segment	Number of Mainline Lanes	Volume Condition	Weekday Morning Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Morning Peak Hour Level of Service	Weekday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Evening Peak Hour Level of Service	Friday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Friday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Sunday Evening Peak Hour Level of Service
State Route 46 Eastbound Mainline (Between Golden Hill Road and Union Road Overcrossing/Extension)	2 plus 1	Annual Average	11.2	B	13.9	B	17.4	B	12.7	B
State Route 46 Eastbound Mainline (Between Golden Hill Road and Union Road Overcrossing/Extension)	2 plus 1	Peak Month	10.8	A	16.8	B	19.2	C	20.8	C
State Route 46 Westbound Mainline (Between Golden Hill Road and Union Road Overcrossing/Extension)	2 plus 1	Annual Average	16.2	B	17.3	B	22.0	C	11.4	B
State Route 46 Westbound Mainline (Between Golden Hill Road and Union Road Overcrossing/Extension)	2 plus 1	Peak Month	15.3	B	20.0	C	25.8	C	17.2	B

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

This page intentionally left blank

Since these nearby intersections do not "govern" Phase 1 overcrossing capacity, Phase 1 is generally considered operationally adequate through the Year 2045. It is also important to note that Phase 2 would remove and/or improve these intersections.

State Route 46 mainline facilities were evaluated under the Year 2045 With Phase 1 traffic volumes and proposed Phase 1 facilities. As shown in Table 2.28, Year 2045 With Phase 1 Conditions–State Route 46 Mainline Facilities Levels of Service, the State Route 46 directional mainline segments and the State Route 46 eastbound ramp junctions under Phase 1 are projected to operate at an acceptable peak hour Level of Service D or better under all analysis time periods, except the State Route 46 westbound mainline, which is projected to operate at an unacceptable peak month Friday evening peak hour Level of Service E conditions. However, as shown in Table 2.27, the Year 2045 Level of Service F conditions projected at the State Route 46/Golden Hill Road at-grade intersection are expected to govern Year 2045 mainline operations under Phase 1. As discussed below, under Year 2045, With Phase 2 conditions, intersection delays would decrease at the restricted intersection of State Route 46/Golden Hill Road (right turns only). Although under Phase 2 conditions, the State Route 46/Golden Hill Road intersection would not achieve an acceptable Level of Service, the decrease in delay would improve mainline operations as shown at the Union Road/State Route 46 westbound and eastbound ramps; refer to Table 2.29.

<u>Design Year 2045 With "Phase 2"</u>: As shown in Table 2.29, Year 2045 With "Phase 2" Conditions Intersections Levels of Service, with the ultimate Phase 2 interchange configuration in place by Year 2045, the State Route 46 directional ramp intersections with Union Road Overcrossing/Extension are projected to operate at signalized peak hour Level of Service "D" or better conditions through the Year 2045. Note that with access restriction of the State Route 46/Golden Hill Road intersection to right turns only, the Union Road Overcrossing/Extension is projected to experience traffic demands of over 33,000 vehicles per day under Year 2045 With "Phase 2" conditions. Therefore, traffic operations indicated in Table 2.29 assume that Union Road Overcrossing/Extension would be widened to operate with the ultimate five-lane section under Year 2045 With "Phase 2" conditions.

The State Route 46/Golden Hill Road access-controlled intersection is projected to operate at a southbound right-turn approach/movement (unsignalized) Level of Service "F" condition; however, this is considered a local street impact on the westbound collector-distributor system, paralleling the State Route 46 westbound mainline lanes. All other local street intersections are projected to operate at peak hour Level of Service "D" or better conditions through the Year 2045 with planned local street improvements in place.

State Route 46 mainline facilities were evaluated under Year 2045 "Phase 2" traffic volumes and proposed Phase 2 facilities. As shown in Tables 2.30a and 2.30b, Year 2045 With "Phase 2" Conditions–State Route 46 Mainline Facilities Levels of Service, State Route 46 directional mainline facilities and ramp junctions are projected to operate at Year 2045 peak hour Level of Service "D" or better conditions under all analysis scenarios with Phase 2. Note that since State Route 46 at-grade full-access study intersections are essentially eliminated under Year 2045 Phase 2, the mainline operations summarized in Tables 2.30a and 2.30b are representative of State Route 46 mainline operating conditions, practically unaffected by study intersections' operations summarized in Table 2.28 (Year 2045 "Phase 1" conditions).

Study Conclusions

According to the 2019 Traffic Operations Analysis Report, the operational analysis indicates that Build Alternative Phase 1 (primarily the three-lane Union Road Overcrossing/Extension only) is projected to provide sufficient/adequate, typical weekday peak hour operations from project opening day (year 2025) through year 2045 (in other words, 20 years after project opening day). Therefore, Build Alternative Phase 1 is deemed adequate for "project opening day." The operational Level of Service issues are projected to remain/escalate at the existing State Route 46/Golden Hill Road at-grade signalized full-access intersection as ambient traffic volumes continue to increase along State Route 46 mainline and local City General Plan-based development continues to occur within the vicinity. Note further that Phase 1 also represents the initial phase of the project and is significantly less expensive than Phase 2. Phase 2 is not considered operationally necessary or financially feasible to be constructed by Phase 1.

Note that Phase 1 of the project was originally expected to complete construction and be open to traffic by year 2025 and is now anticipated to be open to traffic by year 2029. Phase 2 of the proposed project includes the State Route 46/Union Road new interchange, which was originally expected to complete construction and be open to traffic by year 2045 and is now anticipated to be open to traffic by year 2049. Based on the Supplement to the Traffic Operations Analysis Report Review of 'Project Opening Year' Traffic Forecasts, dated March 31, 2023, the updated project opening years would not alter the conclusions of the 2019 Traffic Operations Analysis Report.

The proposed access restriction of State Route 46/Golden Hill Road intersection to "right-turn-only" movements and construction of a westbound collector-distributor system as envisioned under Phase 2 are projected to eliminate operational Level of Service issues at the existing State Route 46/Golden Hill Road signalized full-access intersection. Assuming that Phase 2 is adequately funded and constructed by the year 2049, further widening or expanding of the three-lane Union Road Overcrossing/Extension (as constructed under Phase 1) to the ultimate five-lane section is projected to be

needed to provide sufficient operational capacity at the “new” State Route 46/Union Road interchange. It is also projected to be needed to accommodate local area traffic recirculation and additional traffic projected to divert toward the new interchange when the State Route 46/Golden Hill Road signalized full access intersection is access-restricted to a “right-turn-only” unsignalized intersection and State Route 46/Airport Road “right-turn-only” intersection is completely eliminated.

In Tables 2.29 through 2.30b, worst-case movement/approach delays are reported for two-way stop-controlled intersections. For signalized intersections and all-way stop-controlled intersections, average control delays for the whole intersection are reported. All reported delays and Level of Service values are computed values from Synchro 10 software. For roundabout-controlled intersections, delay values are reported using Signalized and Unsignalized Intersection Design and Research Aid 8 software. In the table above, overflow means delays that exceed 180 seconds per vehicle. The table entry “2 plus 1” refers to two mainline lanes plus one auxiliary or collector-distributor lane.

This page intentionally left blank

Table 2.29 Year 2045 With "Phase 2" Conditions Intersections Levels of Service

Number	Study Intersection	Control Type	Demand Conditions	Weekday Morning Peak Hour Delay (Seconds per Vehicle)	Weekday Morning Peak Hour Level of Service	Weekday Evening Peak Hour Delay (Seconds per Vehicle)	Weekday Evening Peak Hour Level of Service	Friday Evening Peak Hour Delay (Seconds per Vehicle)	Friday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Delay (Seconds per Vehicle)	Sunday Evening Peak Hour Level of Service
1	State Route 46/Golden Hill Road (Right Turns Only)	Signal	Annual Average	68.1	F	Overflow	E	Overflow	F	36.2	E
1	State Route 46/Golden Hill Road (Right Turns Only)	Signal	Peak Month	49.5	E	Overflow	F	Overflow	F	43.7	E
2A	Union Road/State Route 46 Westbound Ramps	Signal	Annual Average	51.8	D	42.4	D	50.7	D	20.2	C
2B	Union Road/State Route 46 Eastbound Ramps	Signal	Annual Average	27.8	C	19.0	B	19.8	B	11.0	B
4	Golden Hill Road/Union Road	All-Way Stop-Controlled	Annual Average	21.9	C	30.2	D	26.3	D	5.8	A
5	Union Road/Union Road Overcrossing/Extension	Roundabout	Annual Average	12.1	B	20.2	C	24.8	C	5.7	A
6	Golden Hill Road/Tractor Street/Dallons Drive	Two-Way Stop-Controlled	Annual Average	22.5	C	86.2	F	35.4	E	10.1	B
7	Golden Hill Road/Golden Hill Plaza Driveway	Signal	Annual Average	26.7	C	26.8	C	30.0	C	26.1	C
8	Airport Road/Dry Creek Road	Two-Way Stop-Controlled	Annual Average	15.3	B	22.4	C	19.5	C	10.6	B
9	Union Road Overcrossing/Extension/Tractor Street	Roundabout	Annual Average	16.7	C	20.3	C	24.6	C	6.1	A

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Table 2.30a Year 2045 With "Phase 2" Conditions–State Route 46 Mainline Facilities Levels of Service

Mainline Segment	Number of Mainline Lanes	Volume Condition	Weekday Morning Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Morning Peak Hour Level of Service	Weekday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Evening Peak Hour Level of Service	Friday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Friday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Sunday Evening Peak Hour Level of Service
State Route 46 Eastbound Mainline (Between Golden Hill Road and Union Road Overcrossing/Extension)	2 plus 1	Annual Average	21.3	C	18.5	B	25.3	C	17.6	B
State Route 46 Eastbound Mainline (Between Golden Hill Road and Union Road Overcrossing/Extension)	2 plus 1	Peak Month	20.3	C	23.6	C	28.2	D	31.5	D
State Route 46 Westbound Mainline (Between Golden Hill Road and Union Road Overcrossing/Extension)	2 plus 1	Annual Average	21.5	C	29.2	D	32.3	D	16.2	B
State Route 46 Westbound Mainline (Between Golden Hill Road and Union Road Overcrossing/Extension)	2 plus 1	Peak Month	20.6	C	31.1	D	34.9	D	19.5	C

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019), page 52.

Table 2.30b Year 2045 With "Phase 2" Conditions–State Route 46 Mainline Facilities Levels of Service

Ramp Junctions	Junction Type	Volume Condition	Weekday Morning Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Morning Peak Hour Level of Service	Weekday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Weekday Evening Peak Hour Level of Service	Friday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Friday Evening Peak Hour Level of Service	Sunday Evening Peak Hour Density (Passenger Cars per Mile per Lane)	Sunday Evening Peak Hour Level of Service
State Route 46 Eastbound Off-Ramp	Diverge	Annual Average	22.4	C	19.4	B	26.6	C	18.4	B
State Route 46 Eastbound Off-Ramp	Diverge	Peak Month	21.4	C	24.8	C	29.6	C	32.9	D
State Route 46 Eastbound On-Ramp	Merge	Annual Average	16.3	B	20.3	B	27.4	C	18.7	B
State Route 46 Eastbound On-Ramp	Merge	Peak Month	15.4	B	25.0	C	30.9	C	33.2	D
State Route 46 Westbound Exit to Collector-Distributor	Diverge	Annual Average	21.4	C	21.5	C	24.5	C	12.9	B
State Route 46 Westbound Exit to Collector-Distributor	Diverge	Peak Month	20.3	B	23.6	C	27.4	C	16.4	B
State Route 46 Westbound Entrance From Collector-Distributor	Merge	Annual Average	22.0	C	29.8	C	33.1	D	16.5	B
State Route 46 Westbound Entrance From Collector-Distributor	Merge	Peak Month	20.9	C	31.9	C	36.0	D	20.0	B

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Pedestrian and Bicycle Facilities

The Build Alternative would include facilities intended to promote connectivity for system linkages related to pedestrian and bicycle movement. The new Union Road Overcrossing/Extension would be designed with bike lanes and pedestrian sidewalks. Although the State Route 46/Golden Hill Road intersection would be access-restricted to a "right turns only" intersection, eliminating the existing signalized-controlled pedestrian crosswalks, the existing pedestrian sidewalk along Golden Hill Road, north of State Route 46, would be maintained. As noted above, there are no existing sidewalks or pedestrian facilities within site boundaries along Union Road and Airport Road.

The Build Alternative would result in beneficial permanent effects related to bicycle and pedestrian movement within the study area, as it would provide nonmotorized facilities in areas where limited facilities exist. As such, transportation connectivity would be enhanced because of these improvements, as envisioned in the General Plan Land Use goals and policies. The Build Alternative would be designed and constructed in compliance with regulations included in the 1990 Americans with Disabilities Act, as required for federal-aid projects. The Build Alternative would include planned access and mobility of nonmotorized vehicles and pedestrians. These accommodations are consistent with the General Plan, in which Union Road and the proposed Union Road Overcrossing/Extension within the study area are proposed as a "Class 2 Bicycle Facility." Design facilities for the Build Alternative would be fully accessible as described in the Caltrans' Design Information Bulletin 82-03 "Pedestrian Accessibility Guidelines for Highway Projects," and allows Americans with Disabilities Act-compatible crossings. Adverse effects related to pedestrian and bicycle facilities would not occur.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures would be required.

2.1.11 Visual/Aesthetics

Regulatory Setting

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

The California Environmental Quality Act establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of aesthetic, natural, scenic and historic environmental qualities" (California Public Resources Code Section 21001[b]).

California Streets and Highways Code Section 92.3 directs Caltrans to use drought-resistant landscaping and recycled water when feasible and to incorporate native wildflowers and native and climate-appropriate vegetation into the planting design when appropriate.

Affected Environment

Information for this section is primarily based on the Visual Impact Assessment for the State Route 46 East/Union Road Intersection Improvements (May 2023) that was prepared for the proposed project.

The project site is on State Route 46 from post mile 30.7 to post mile 32.4 and includes Golden Hill Road, Union Road, Paso Robles Road, Tractor Street, and Airport Road in the City of Paso Robles, in San Luis Obispo County, California. The project is in the Salinas River Valley of central California. The landscape is characterized by grassy rolling hills and cropland associated with agricultural uses. The land uses within the corridor are primarily urban and include residential, commercial, and light industrial uses; however, open space, recreational, and agricultural uses are also present. The project site is relatively flat, with an elevation of approximately 800 feet above mean sea level; however, there are rolling hills with elevations ranging from 700 to 850 feet above mean sea level in the rolling hills to the north and south of the project. However, gently rolling hills are present within the eastern limits of the project corridor.

The proposed project would be aligned within a segment of State Route 46 that has been designated as an Eligible State Scenic Highway under the California Scenic Highway Program. In addition, State Route 46, between Jardine Road and Airport Road, and Union Road, are identified as "Gateways to the City" and "Visual Corridors" by Table C-1, Important Visual Resources, of the City of Paso Robles General Plan. The General Plan designates hillsides within the City as a "visual amenity" and calls for design standards such as limiting the amount of grading, providing substantial amounts of landscaping, and incorporating architectural treatment that enhances the form of the hillside rather than conflicting with it.

Visual Assessment Unit and Key Views

Based on the methodology of the Visual Impact Assessment, a project can be divided into a series of "outdoor rooms" or visual assessment units. Each visual assessment unit can have its own visual character and visual quality. It is typically defined by the limits of a particular viewshed. For this project, a single visual assessment unit and its associated key views were identified.

The visual assessment unit is in the northern portion of the City, generally situated within the northern portion of San Luis Obispo County. The project site is located within a developed area and is surrounded by residential, commercial, light industrial, open space, recreational, and agricultural uses to the north, transportation uses (State Route 46) to the east and west, and residential, commercial, light industrial, and community park/open space uses to the south. The visual assessment unit includes varying topography, with elevations ranging from 700 to 850 feet above mean sea level in the rolling hills to the north and south and 800 feet above mean sea level in the State Route 46 alignment. Visible infrastructure in the visual assessment unit includes signage, lighting, barriers and guardrails, fences, and overhead powerlines. Human-made features (in other words, residential, light industrial, and commercial uses) are present throughout the visual assessment unit; however, mature trees, agricultural and open space uses, landscaped and nonlandscaped sidewalks, and medians are also scattered throughout this visual assessment unit. Geographic features that form the visual assessment unit include sloping hills within the eastern portion of the corridor, the Eastside Ridgeline, and the Ridgeline west of Paso Robles to the west. The sloping hills and ridgelines visually contrast with the relatively flat form of Paso Robles, allowing for more distant views.

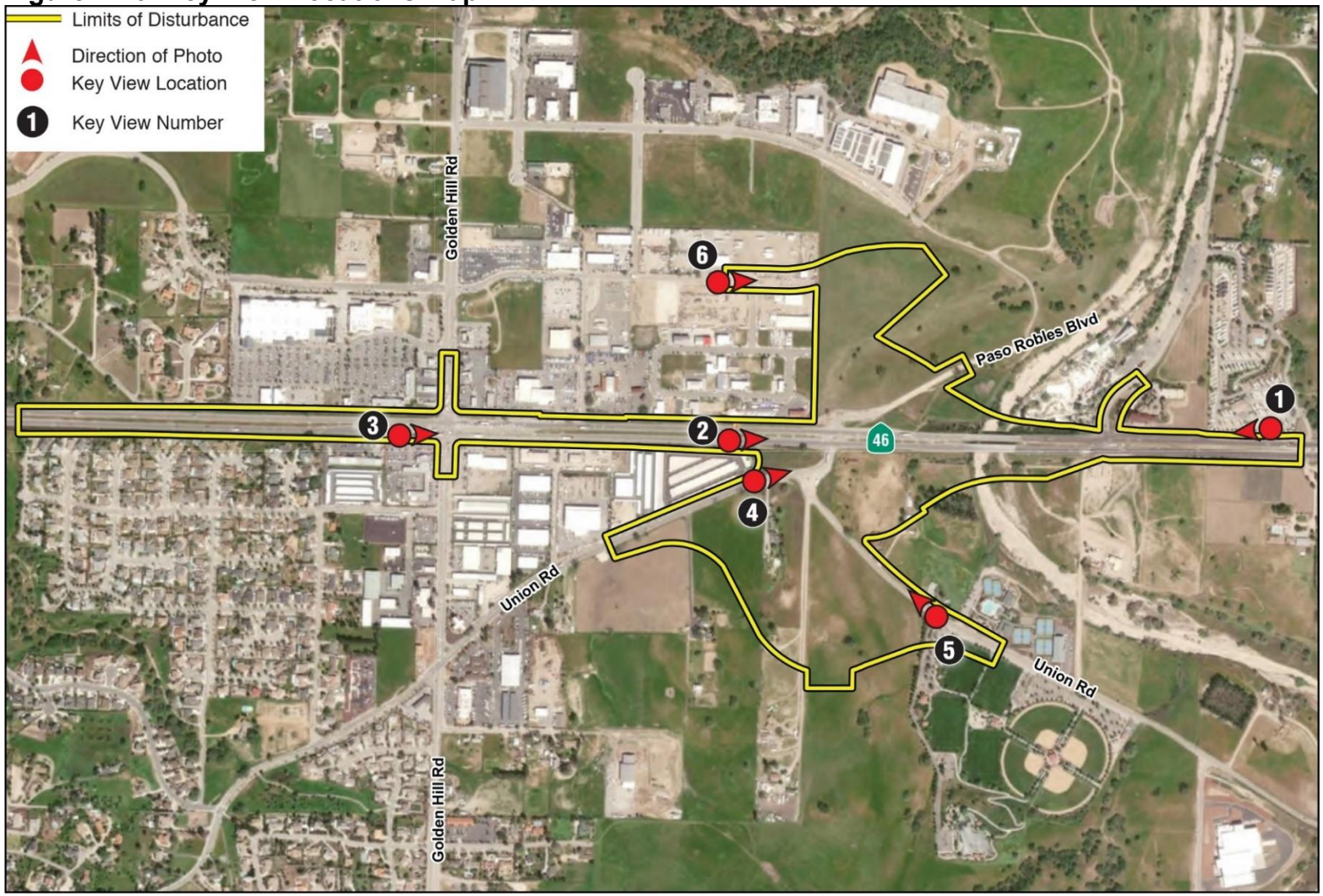
A total of six key view locations were selected in consultation with Caltrans District 5 on May 14, 2020, to show visual changes in the project corridor from the proposed project; refer to Figure 2-10, Key View Locations Map. Each key view is described below, and a summary is provided within Table 2.31, Key View Locations.

Table 2.31 Key View Locations

Key View	Location
Key View 1	Westbound travel lanes of State Route 46, just east of Airport Road
Key View 2	Eastbound travel lanes of State Route 46, just west of Union Road and Paso Robles Boulevard
Key View 3	Eastbound travel lanes of State Route 46, just west of the Golden Hill Road intersection
Key View 4	Northeast toward the existing State Route 46/Union Road intersection
Key View 5	Union Road near Barney Schwartz Park looking northwest
Key View 6	Tractor Street looking east toward existing light industrial uses

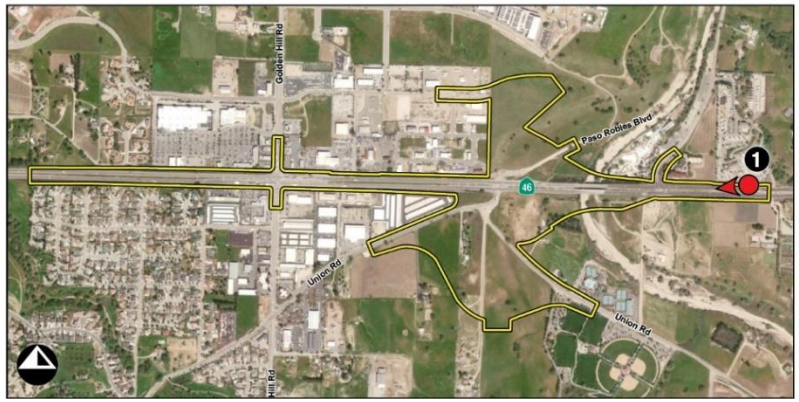
Source: Michael Baker International, Visual Impact Assessment for the State Route 46 East/Union Road Intersection Improvements (May 2023).

Figure 2-10 Key View Locations Map



- Key View 1 is along the westbound travel lanes of State Route 46, just east of Airport Road; refer to Figure 2-11, Key View 1–Existing Condition. The visual form in Key View 1 appears to be consistent throughout the view. The highway is linear and continuous with undefined edges. Colors in Key View 1 include a variety of greens associated with mature trees and natural vegetation, browns associated with the concrete block soundwall, and shades of gray associated with the concrete and asphalt paving materials of the highway. Textures throughout this key view include granular mature trees, bushes, grass/ground cover, rough concrete block soundwall, and smooth pavement areas associated with the highway. The variety of colors and textures experienced in Key View 1 and distant views of the Eastside Ridgeline result in moderate visual diversity and vividness. Although limited signage is present within the foreground and middle ground views, the intactness of Key View 1 is relatively high based on an overall lack of aboveground visual intrusions (in other words, street lighting and overhead powerlines, high-rise buildings, et cetera) to background views of the Eastside Ridgeline. This key view appears to be fairly unified due to the continuous linear pattern of the highway. Overall, existing visual character and quality are considered moderate to high in this regard.
- Key View 2 is along the eastbound travel lanes of State Route 46, just west of Union Road and Paso Robles Boulevard; refer to Figure 2-12, Key View 2–Existing Condition. The visual form of State Route 46 within Key View 2 varies throughout the view based on the presence of left-hand turn lanes within the middle ground of this Key View. The highway is linear with undefined edges in the foreground and middle ground and curvilinear with undefined edges in background views. Colors in Key View 2 include a variety of greens associated with mature trees and natural vegetation and shades of gray associated with the concrete and asphalt materials of the highway. Textures throughout this key view include granular mature trees and grass/ground cover and smooth pavement areas associated with the highway. The variety of colors and textures experienced in Key View 2 results in moderate visual diversity and vividness, although to a lesser degree than in Key View 1. Intactness is slightly reduced based on the presence of street lighting and overhead powerlines. This key view appears to be unified due to the continuous curvilinear pattern of the highway and mature trees and natural vegetation. Overall, existing visual character and quality is considered moderate in this regard.

Figure 2-11 Key View 1–Existing Conditions



Limits of Disturbance
Direction of Photo
Key View Location
Key View Number

Figure 2-12 Key View 2–Existing Conditions

Limits of Disturbance
Direction of Photo
Key View Location
Key View Number

- Key View 3 is along the eastbound travel lanes of State Route 46, just west of the Golden Hill Road intersection; refer to Figure 2-13, Key View 3–Existing Condition. Key View 3 includes foreground views of State Route 46, middle ground views of the State Route 46/Golden Hill Road intersection and surrounding commercial uses, and background views of State Route 46. The highway is linear with undefined edges in the foreground and middle ground and curvilinear with undefined edges in background views. Colors in Key View 3 include a variety of greens associated with mature trees and natural vegetation and shades of gray associated with the concrete and asphalt materials of the highway and surrounding commercial uses. Shades of white are also visible and associated with surrounding commercial uses. Textures throughout this key view include granular mature trees, grass/ground cover, and smooth pavement areas associated with the highway while surrounding commercial uses include uniform wood paneling and rough stucco treatments. The vividness of Key View 3 is moderate based on the presence of mature trees and the variety of colors and textures experienced at this key view. The unity and intactness of Key View 3 are reduced based on surrounding commercial uses and existing vertical elements (in other words, existing signalized control, overhead street lighting, and vertical signage for surrounding commercial uses). Overall, existing visual character and quality are considered moderate to low in this regard.
- Key View 4 is along Union Road, looking northeast toward the existing State Route 46/Union Road intersection; refer to Figure 2-14, Key View 4–Existing Condition. Key View 4 includes foreground views of Union Road, middle ground views of the existing State Route 46/Union Road intersection, residential and recreational uses, and background views of gently rolling hillsides. Vertical elements include traffic signage and overhead powerlines. The colors in Key View 4 include a variety of greens associated with mature trees and natural vegetation, shades of brown associated with the nonlandscaped dirt areas along Union Road, and shades of gray associated with the concrete and asphalt materials of the roadway and State Route 46. Textures throughout this key view primarily include granular mature trees, grass/ground cover, and smooth pavement areas associated with Union Road and the highway. Within Key View 4, Union Road appears curvilinear with undefined edges. The vividness of Key View 4 is moderate based on the presence of mature trees and the variety of colors and textures experienced at this key view. The unity and intactness of Key View 4 are reduced based on traffic signage, overhead powerlines, and nonlandscaped dirt areas. Overall, existing visual character and quality is considered moderate in this regard.

Figure 2-13 Key View 3–Existing Conditions

Limits of Disturbance
Direction of Photo
Key View Location
Key View Number

Figure 2-14 Key View 4–Existing Conditions

Limits of Disturbance
Direction of Photo
Key View Location
Key View Number

- Key View 5 is along Union Road near Barney Schwartz Park, looking northwest; refer to Figure 2-15, Key View 5–Existing Condition. Key View 5 includes foreground and middle ground views of Union Road and middle ground views of residential uses. Colors in Key View 5 include a variety of greens associated with mature trees and natural vegetation, shades of brown associated with perimeter fencing and the nonlandscaped dirt areas along Union Road, and shades of gray associated with the concrete and asphalt materials of the roadway. Orange construction materials were visible within the foreground views and middle ground views, and surrounding residential uses included shades of white and red. Textures throughout this key view primarily include granular mature trees and grass/ground cover and smooth pavement areas associated with Union Road, while surrounding residential uses include rough stucco treatments. Within Key View 5, Union Road is curvilinear with undefined edges. The vividness of Key View 5 is moderate based on the presence of mature trees and the variety of colors and textures experienced at this key view. The unity and intactness of Key View 5 are reduced based on scattered construction materials, overhead powerlines, and nonlandscaped dirt areas. Overall, existing visual character and quality are considered moderate in this regard.
- Key View 6 is along Tractor Street, looking east toward existing light industrial uses; refer to Figure 2-16, Key View 6–Existing Condition. Existing views at Key View 6 include existing light industrial uses along Tractor Street and the Tractor Street/Combine Street intersection. Colors in Key View 6 primarily include shades of gray associated with the concrete and asphalt materials of the roadway, gravel, and chain-link fencing. A limited variety of greens associated with mature trees and weedy vegetation are also present. Textures throughout this key view include granular mature trees, ground cover, and rough pavement areas associated with the roadway, while surrounding industrial uses include uniform wood paneling. The vividness of Key View 6 is low based on the overall lack of colors and textures experienced at this key view. The unity and intactness of Key View 6 are reduced based on surrounding fencing, light industrial uses, and street lighting. Overall, existing visual character and quality are considered moderate to low in this regard.

Environmental Consequences

Temporary Impacts

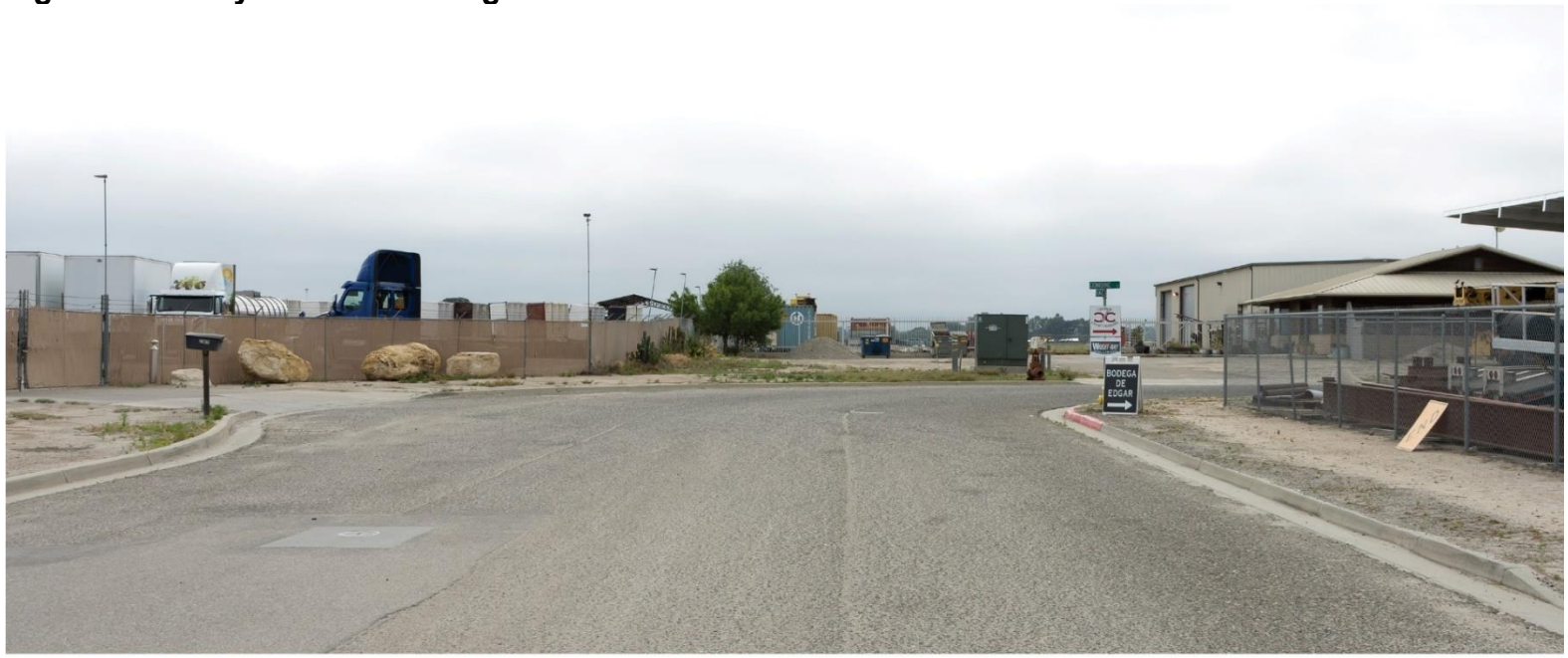
No-Build Alternative

Under the No-Build Alternative, there would be no construction activity related to the project, and no temporary adverse impacts related to visual resources or aesthetics would occur.

Figure 2-15 Key View 5–Existing Conditions

Limits of Disturbance
Direction of Photo
Key View Location
Key View Number

Figure 2-16 Key View 6–Existing Conditions



Limits of Disturbance
Direction of Photo
Key View Location
Key View Number

Build Alternative (Phases 1 and 2)

Implementing the Build Alternative would expose sensitive uses to views of the project site. Construction-related vehicle access and staging of construction materials would occur within various disturbed or developed areas within the project site. Construction of the Build Alternative would expose surfaces, construction debris, equipment, and truck traffic to nearby sensitive viewers. Construction vehicle access and staging of construction materials would be visible from motorists traveling along the project site as well as commercial uses, industrial uses, residential uses, and recreational uses located in the project vicinity. These impacts would be short-term and would cease upon project completion. Adhering to Caltrans Standard Specifications for Construction would minimize visual impacts using opaque temporary construction fencing that would be situated around construction staging areas.

The Build Alternative may require nighttime construction activities. Nighttime construction lighting could potentially impact nearby residents, recreational users, and motorists traveling along the project site. These activities may be required to take place for several months. However, the project area contains existing sources of light (in other words, vehicle headlights, streetlights, park lighting, residential and nonresidential lights, et cetera). Per Caltrans regulations, nighttime construction would be limited to 10:00 p.m. to 6:00 a.m. Furthermore, measure Visual/Aesthetics-1 would be implemented to minimize light and glare effects from nighttime construction activities through the requirement that necessary lighting for safety and construction purposes would be directed away from land uses outside the project area and contained and directed toward the specific area of construction. With the implementation of minimization measure Visual/Aesthetics-1, effects related to light and glare from nighttime construction activities would not be adverse.

Permanent Impacts

No-Build Alternative

Under the No-Build Alternative, none of the proposed project improvements would be implemented. The No-Build Alternative would result in no change to the project corridor. Therefore, the visual character and quality of the project site and vicinity would remain unchanged. The No-Build Alternative would result in no changes to the topography at the project site, and increased hardscape from the new interchange would not occur. The No-Build Alternative would not have any adverse permanent effects related to visual resources and aesthetics.

Build Alternative

Because it is not feasible to analyze all the views in which the proposed project would be seen, it is necessary to analyze the Build Alternative via the key views associated with the visual assessment unit described above. Key views also represent the viewer groups that have the highest potential to be

affected by the project considering exposure and sensitivity. These key views are analyzed for each proposed phase of the Build Alternative.

Key View 1

Key View 1–Phase 1

Several proposed changes identified under Phase 1 would be visible in Key View 1, including the closure of the existing State Route 46 median opening at the intersection of Airport Road/State Route 46 and the new State Route 46/Union Road Overcrossing/Extension; refer to Figure 2-17, Key View 1–Proposed Condition (Phase 1 and Phase 2).

The most notable visual change in Key View 1 from Phase 1 of the Build Alternative is the new State Route 46/Union Road Overcrossing; refer to Figure 2-17. The proposed condition would appear similar to the existing condition with regards to colors and textures; however, an increase in gray colors (associated with new overcrossing) and a slight decrease in green colors (from vegetation removal) would result (visual character). Intactness and unity (visual quality) would be reduced under Phase 1 due to the additional hardscape introduced with the new State Route 46/Union Road Overcrossing. The new overcrossing would also decrease the continuity experienced at Key View 1. Additionally, the new State Route 46/Union Road Overcrossing would not encroach upon distant views of the Eastside Ridgeline. As such, the overall resource change for Key View 1 under Phase 1 of the Build Alternative is considered moderate to low.

Key View 1–Phase 2

Several proposed changes identified under Phase 2 would be visible in Key View 1, including the proposed State Route 46 westbound off-ramp, the westbound collector-distributor, and the widened State Route 46/Union Road Overcrossing. Eliminating the existing right-turn-in, right-turn-out-only intersection at Airport Road/State Route 46 and installing the concrete median along State Route 46 would also be visible.

The visual character changes in Key View 1 from Phase 2 would be similar to Phase 1, although to a greater extent. The proposed State Route 46 westbound off-ramp, westbound collector-distributor, widened Union Road Overcrossing/Extension, and concrete median along State Route 46 would increase the hardscape features, gray colors, and smooth textures experienced in Key View 1 and would reduce the green colors and granular textures associated with existing mature trees and natural vegetation. These changes would reduce the vividness, intactness, and unity experienced at Key View 1 (visual quality). Additionally, the widened overcrossing would also decrease the continuity experienced at Key View 1. As shown in Figure 2-17, the additional hardscapes proposed under Phase 2 would not encroach upon distant views of the Eastside Ridgeline.

Figure 2-17 Key View 1–Proposed Condition (Phase 1 and Phase 2)

As such, the overall resource change for Key View 1 under Phase 2 of the Build Alternative is considered moderate to low.

Key View 2

Key View 2–Phase 1

Several proposed changes identified under Phase 1 would be visible in Key View 2, including the closure of the existing State Route 46 median opening at the intersection of Paso Robles Boulevard/State Route 46 and the new State Route 46/Union Road Overcrossing; refer to Figure 2-18, Key View 2–Proposed Condition (Phase 1 and Phase 2). Key View 2 also shows the relocation of the existing Union Road Connector. The most notable visual change in Key View 2 from Phase 1 is the new State Route 46/Union Road Overcrossing; refer to Figure 2-18.

The new overcrossing and relocated Union Road Connector would increase the hardscape features, gray colors, and smooth textures experienced in Key View 2 (visual character). However, the removal of existing encroaching features (in other words, overhead powerlines and traffic signage) would maintain views of green colors and granular textures associated with existing mature trees and natural vegetation. As a result, vividness would appear similar to existing conditions, while the intactness and unity experienced at Key View 2 would be reduced (visual quality). The new overcrossing would also decrease the continuity experienced at Key View 2. As such, the overall resource change for Key View 2 under Phase 1 of the Build Alternative is considered moderate.

Key View 2–Phase 2

Several proposed changes identified under Phase 2 would be visible in Key View 2, including the proposed State Route 46 westbound off-ramp and eastbound on-ramp, the westbound collector-distributor, and the widened State Route 46/Union Road Overcrossing; refer to Figure 2-18.

The visual character changes in Key View 2 from Phase 2 would be similar to Phase 1. The most notable visual change in Key View 2 from Phase 2 is the State Route 46 westbound off-ramp and eastbound on-ramp, the westbound collector-distributor, and the widened State Route 46/Union Road Overcrossing; refer to Figure 2-18. These features would increase the hardscape features, gray colors, and smooth textures experienced in Key View 2 (visual character). However, the removal of existing encroaching features (in other words, overhead powerlines and traffic signage) would maintain views of the green colors and granular textures associated with existing mature trees and natural vegetation. As a result, vividness would appear similar to existing conditions, while the intactness and unity experienced at Key View 2 would be reduced (visual quality). The widened overcrossing would also decrease the continuity experienced at Key View 2.

As such, the overall resource change for Key View 2 under Phase 2 of the Build Alternative is considered moderate.

Figure 2-18 Key View 2–Proposed Condition (Phase 1 and Phase 2)

Key View 3

Key View 3–Phase 1

Resource Change: Limited changes under Phase 1 would be visible from Key View 3; refer to Figure 2-19, Key View 3–Proposed Condition (Phase 1 and Phase 2). However, distant views of the new State Route 46/Union Road Overcrossing would be afforded.

The only visible change in Key View 3 under Phase 1 is distant background views of the new State Route 46/Union Road Overcrossing. Although the new overcrossing would reduce the unity and intactness of Key View 3 (visual quality), these changes would not substantially change the visual character or quality of Key View 3 based on the distance of the proposed changes from the Key View. As shown in Figure 2-19, the new overcrossing would not visually dominate the surrounding environment (visual character). The vividness of Key View 3 would be similar to existing conditions based on similar colors, textures, and landscaping (visual quality). As such, the overall resource change for Key View 3 under Phase 1 of the Build Alternative is considered low.

Key View 3–Phase 2

Key View 3 shows intersection improvements/modifications at Golden Hill Road/State Route 46 under Phase 2 of the Build Alternative; refer to Figure 2-19. Visible improvements would include eliminating the existing signalized control, incorporating a new median on State Route 46 at the Golden Hill Road/State Route 46 intersection, and reconfiguring the intersection to allow eastbound right-turn-in and right-turn-out movements along State Route 46. The concrete barrier associated with the new westbound collector-distributor would also be visible. In addition, distant views of the widened State Route 46/Union Road Overcrossing would be afforded.

The most notable visual change in Key View 3 from Phase 2 is the intersection improvements/modifications at Golden Hill Road/State Route 46; refer to Figure 2-19. Removal of the existing signalized control would increase the intactness and unity (visual quality) experienced at Key View 3 and would increase the continuity (visual character) experienced at Key View 3. New linear features, such as the westbound concrete barrier and landscaped median, would also increase the continuity experienced at Key View 3. In addition, the new landscaped median would increase the color, form, and texture experienced at this key view. These changes would increase the vividness experienced at Key View 3. As with Phase 1, background views of the widened overcrossing would not substantially change the visual character or quality of Key View 3 based on the distance of the proposed changes from the Key View. As such, the overall resource change for Key View 3 under Phase 2 of the Build Alternative is considered moderate to low.

Figure 2-19 Key View 3–Proposed Condition (Phase 1 and Phase 2)

Key View 4

Key View 4–Phase 1

Several proposed changes identified under Phase 1 would be visible in Key View 4, including the realignment of Union Road, the new State Route 46/Union Road Overcrossing, and the new Union Road Connector to eastbound State Route 46; refer to Figure 2-20, Key View 4–Proposed Condition (Phase 1 and Phase 2).

The most notable visual change in Key View 4, from Phase 1, is the new State Route 46/Union Road Overcrossing; refer to Figure 2-20. The proposed condition would appear similar to the existing condition regarding colors (visual character). The textures associated with the proposed condition would be similar to existing conditions, although to a lesser extent. These changes would reduce the vividness experienced at Key View 4 (visual quality). Although existing encroaching features (in other words, overhead powerlines) would be removed, intactness and unity would be reduced under Phase 1 due to the additional hardscape introduced with the new State Route 46/Union Road Overcrossing. The new overcrossing would also decrease the continuity experienced at Key View 4. As such, the overall resource change for Key View 4 under Phase 1 of the Build Alternative is considered moderate to low.

Key View 4–Phase 2

Several proposed changes identified under Phase 2 would be visible in Key View 4, including the closure of the Union Road Connector and the widened State Route 46/Union Road Overcrossing; refer to Figure 2-20. Distant views of the concrete barrier associated with the new westbound State Route 46 collector-distributor and State Route 46 westbound off-ramp would also be afforded.

The most notable visual change in Key View 4, from Phase 2, is the closure of the Union Road Connector and the widened State Route 46/Union Road Overcrossing; refer to Figure 2-20. The proposed condition would appear similar to the existing condition regarding colors (visual character). The textures (visual character) associated with the proposed condition would be similar to existing conditions, although to a lesser extent. These changes would reduce the vividness experienced at Key View 4 (visual quality). Intactness and unity would be reduced under Phase 2 due to the additional hardscape introduced with the new State Route 46/Union Road Overcrossing. The new overcrossing and closure of the Union Road Connector would also decrease the continuity experienced at Key View 4. As such, the overall resource change for Key View 4 under Phase 2 of the Build Alternative is considered moderate to low.

Figure 2-20 Key View 4–Proposed Condition (Phase 1 and Phase 2)

Key View 5

Key View 5–Phase 1

Key View 5 shows the realignment of Union Road and a small portion of the new State Route 46/Union Road Overcrossing; refer to Figure 2-21, Key View 5–Proposed Condition (Phase 1 and Phase 2).

Under the proposed condition, the visible form (visual character) of Union Road would be altered based on the realignment and widening of Union Road. The increased hardscape of Union Road would result in an increased scale of the roadway at this view (visual character). In addition, the proposed vertical alignment of the State Route 46/Union Road Overcrossing would increase the scale of this roadway at this view, partially blocking existing views of surrounding residential uses. The proposed condition would appear similar to the existing condition regarding colors, although an increase in gray colors (associated with widened Union Road) would result (visual character). The textures associated with the proposed condition would be similar to existing conditions, although to a lesser extent (visual character). These changes would slightly reduce the vividness (visual quality) experienced at Key View 5. Although Phase 1 would remove existing scattered construction materials, overhead powerlines, nonlandscaped dirt areas, and increased hardscapes, the removal of existing rolling hills would decrease the unity and intactness of Key View 5 (visual quality) and alter the existing rural character of this key view. As such, the overall resource change for Key View 5 under Phase 1 of the Build Alternative is considered moderate.

Key View 5–Phase 2

Under Phase 2, Key View 5 would show the widened Union Road realignment; refer to Figure 2-21. A small portion of the State Route 46/Union Road Overcrossing would also be visible.

The visual character changes in Key View 5 from Phase 2 would be similar to Phase 1. The widened Union Road realignment would alter the existing visible form of Union Road and would increase the scale of the roadway from this view. In addition, the proposed vertical alignment of the State Route 46/Union Road Overcrossing would increase the scale of this roadway at this view (visual character), partially blocking existing views of surrounding residential uses. The proposed condition would appear similar to the existing condition regarding colors, although an increase in gray colors (associated with widened Union Road) would result. The textures associated with the proposed condition would be similar to existing conditions (visual character), although to a lesser extent. These changes would slightly reduce the vividness experienced at Key View 5 (visual quality).

Figure 2-21 Key View 5–Proposed Condition (Phase 1 and Phase 2)

Although Phase 2 would remove existing scattered construction materials, overhead powerlines, and nonlandscaped dirt areas, increased hardscapes and the resultant removal of rolling hills would decrease the unity and intactness of Key View 5 (visual quality) and would alter the existing rural character of this key view. As such, the overall resource change for Key View 5 under Phase 2 of the Build Alternative is considered moderate.

Key View 6

Key View 6–Phase 1 and Phase 2

Under Phase 1 and Phase 2, Key View 6 would include the proposed Tractor Street and roundabout connection to the Union Road Overcrossing/Extension proposed under Phase 1 of the Build Alternative; refer to Figure 2-22, Key View 6–Proposed Condition (Phase 1 and Phase 2).

As noted, visible changes associated with Phase 1 and Phase 2 would include the proposed Tractor Street and roundabout connection to the Union Road Overcrossing/Extension proposed under Phase 1 of the Build Alternative. The proposed condition would appear similar to the existing condition with regards to colors, although a slight increase in gray colors (associated with roadway extension) is noted (visual character). Although existing mature trees and weedy vegetation would be removed, the proposed changes would allow for new background views of existing trees. The textures associated with the proposed condition would be similar to existing conditions. As a result, the vividness experienced at Key View 6 would be similar to existing conditions (visual quality). The intactness and unity experienced at Key View 6 would be increased under Phase 1 and Phase 2 due to the curvilinear alignment of Union Road, removal of existing vertical features (in other words, fencing), and new background views to existing trees. As such, the overall resource change for Key View 6 under Phases 1 and 2 of the Build Alternative is considered low.

Summary

Implementation of the proposed Build Alternative would result in an increase in hardscape in the project area visible to commercial, industrial, residential, and recreational uses, in addition to State Route 46 motorists and local roadway travelers. Visual impacts associated with a project are determined by a measurement of the resource change and viewer response. The overall viewer response for this project is considered moderate to high.

Figure 2-22 Key View 6–Proposed Condition (Phase 1 and Phase 2)

A range of measures would be implemented to minimize permanent visual impacts associated with the Build Alternative. Minimization measure Visual/Aesthetics-2 would require landscaping to be included that is compatible with the existing landscape within the project corridor and surrounding area. Landscaping within the project area would include specimen-sized trees and/or shrub/ground cover mass planting, landscape treatment along the highway on-ramps and off-ramps, City streets, the central island of roundabouts, bridge structure, and walls to soften the hardscape features. The landscape concept, plan, and plant palette would be determined in consultation with and approved by the Caltrans District Landscape Architect. Minimization measure Visual/Aesthetics-3 would require aesthetic treatments on hardscape features (in other words, bridges, retaining walls, concrete barriers, et cetera) to reduce the urbanizing effect and minimize potential graffiti. Grading would be required to use contour grading and slope rounding to minimize conventional cut landform appearance. With the implementation of minimization measures Visual/Aesthetics-2 and Visual/Aesthetics-3, effects related to permanent visual impacts would not be adverse.

Avoidance, Minimization, and/or Mitigation Measures

The following minimization measures would be implemented to protect visual/aesthetic resources.

- Visual/Aesthetics-1: Construction lighting types, plans, and placement would be reviewed and approved at the discretion of the project engineer to verify that the construction contractor implements the following Nonstandard Special Provisions during construction activities to minimize light and glare impacts on surrounding sensitive uses. The construction contractor would minimize project-related light and glare to the maximum extent feasible, given safety considerations. At a minimum, color-corrected halide lights would be used. Portable lights would be operated at the lowest allowable wattage and height and would be raised to a height no greater than 20 feet. All lights would be screened and directed downward toward work activities and away from the night sky and nearby residents to the maximum extent possible. The number of nighttime lights used would be minimized to the greatest extent possible. Pedestrian-scale lighting would be used along pedestrian facilities.
- Visual/Aesthetics-2: To maintain the context of the project area (color, form, and texture), landscaping that is compatible with the existing landscape along State Route 46 in the project vicinity and surrounding area would be installed. Landscaping within the project area would include specimen-sized trees and/or shrub/ground cover mass planting and landscape treatment along the highway on-ramps and off-ramps, City streets, the central island of roundabouts, bridge structures, and walls to soften the hardscape features and reduce glare and radiant heat. Complete Street elements, including street tree planting, would be

included to promote traffic calming, reduce urbanization, and enhance multimodal accessibility throughout the project site. The landscape concept, plan, and plant palette would be determined in consultation with, and approved by, the Caltrans District Landscape Architect in consultation with the City of Paso Robles during the Plans, Specifications, and Estimates phase. All vine and landscape proposed would conform with the planting policy requirements of Caltrans and the applicable goals and policies of the City of Paso Robles General Plan. The planting plan would be reviewed and approved by a Caltrans Biologist to be in accordance with Executive Orders 13751, Safeguarding the Nation from the Impacts of Invasive Species (2016), and 13112, Invasive Species (1999).

- Visual/Aesthetics-3: Aesthetic treatments (in other words, color treatment, textural treatment, varying materials, landscaping, et cetera) would be added to hardscape features (in other words, bridge, retaining walls, paving, roundabout splitter islands, concrete barrier, and truck aprons, et cetera) to reduce the urbanizing effect and minimize potential graffiti. Structural themes would be compatible with the existing architectural character of the surrounding area and would be determined by the Caltrans District 5 Landscape Architect in consultation with the City of Paso Robles during the Plans, Specifications, and Estimates phase of the project. All grading would use contour grading and slope rounding techniques to minimize conventional cut landform appearance as per Highway Design Manual Section 304.4. At a minimum, the grading design would round slope transitions to produce a more natural visual appearance when connecting to the original grade.

2.1.12 Cultural Resources

Regulatory Setting

The term “cultural resources,” as used in this document, refers to the “built environment” (for example, structures, bridges, railroads, water conveyance systems, et cetera), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms, including “historic properties,” “historic sites,” “historical resources,” and “tribal cultural resources.” Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation

(36 Code of Federal Regulations 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the Department went into effect for Department projects, both state and local, with Federal Highway Administration involvement. The Programmatic Agreement implements the Advisory Council on Historic Preservation's regulations, 36 Code of Federal Regulations 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The Federal Highway Administration's responsibilities under the Programmatic Agreement have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 U.S. Code 327).

The California Environmental Quality Act requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. California Public Resources Code Section 5024.1 established the California Register of Historical Resources and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the California Register of Historical Resources and, therefore, a historical resource. Historical resources are defined in Public Resources Code Section 5020.1(j). In 2014, Assembly Bill 52 added the term "tribal cultural resources" to California Environmental Quality Act, and Assembly Bill 52 is commonly referenced instead of California Environmental Quality Act when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in Public Resources Code Section 21074(a), a tribal cultural resource is a California Register of Historical Resources or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in Public Resources Code Section 21083.2.

Public Resources Code Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the National Register of Historic Places listing criteria. It further requires the Department to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register of Historic Places or are registered or eligible for registration as California Historical Landmarks. Procedures for compliance with Public Resources Code Section 5024 are outlined in a Memorandum of Understanding between the Department and the State Historic Preservation Officer, effective January 1, 2015. For most Federal-aid projects on the State Highway System, compliance with the Section 106 Programmatic Agreement will satisfy the requirements of Public Resources Code Section 5024.

Affected Environment

This section is based on the following technical studies: the Historic Property Survey Report for the State Route 46 East/Union Road Intersection Improvements (dated July 2020), the Supplemental Historic Property Survey Report for the State Route 46 East/Union Road Intersection Improvements (dated August 2021), the Finding of Effect for the State Route 46 East/Union Road Intersection Improvements (dated November 2021), the Programmatic Agreement between the California Department of Transportation and the California State Historic Preservation Officer Regarding the State Route 46 East/Union Road Intersection Improvements (dated September 2022), the Archaeological Survey Report for the Union Road/State Route 46 East Intersection Alignment Project (dated February 2020), the Historical Resources Evaluation Report for the Union Road/State Route 46 East Intersection Alignment Project (dated September 2019), and the Cultural Resources Management Plan for the State Route 46 East/Union Road Intersection Improvements (dated August 2022).

Records Search

A records search of the Central Coast Information Center, City of Paso Robles, and the Caltrans Confidential Cultural Resources Database was completed for the Historic Property Survey Report; a literature review and archival research were also completed. The Central Coast Information Center records search (Central Coast Information Center File Number 18-133) was conducted for the Area of Potential Effects with a 0.25-mile search radius. The Central Coast Information Center of the California Historical Resources Information System University of California, Santa Barbara, an affiliate of the State of California Office of Historic Preservation, is the official state repository for cultural resource records and reports for San Luis Obispo County. Additional inventories, such as the California Register of Historic Resources, the California Historical Landmarks, the Directory of Properties in the Historic Property Data File, and the Archaeological Determinations of Eligibility, were reviewed. Focused property research for the Historic Property Survey Report was conducted at the San Luis Obispo County Assessor's Office; the "Historic Buildings of San Luis Obispo County" database of the History Center of San Luis Obispo County was also reviewed. The Historic Property Survey Report also included a visit to the Paso Robles Historical Society on June 18, 2019, to review historic maps, historic aerial photographs, and local historical literature.

Native American Consultation

An initial request to the Native American Heritage Commission was made on October 25, 2018, to elicit pertinent cultural resource information available in the Sacred Lands File. In a reply on November 5, 2018, the Native American Heritage Commission stated the Sacred Lands File search for the project was completed with negative results but that the area is considered sensitive for cultural resources. The Native American Heritage Commission provided a list

of Native American contacts within the region. Per Section 106 of the National Historic Preservation Act, and as required under the California Environmental Quality Act, specifically Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014 (in other words, Assembly Bill 52), Caltrans consulted with pertinent Native American contacts to identify potential Native American resources within the Area of Potential Effects. These contacts include representatives of the Salinan Tribe of Monterey and San Luis Obispo Counties, the Salinan Tribe of Monterey, San Luis Obispo, and San Benito Counties, and the Xolon Salinan Tribe.

Chapter 4.0, Comments and Coordination, provides additional detail regarding Native American consultation efforts.

Area of Potential Effects

The Area of Potential Effects for the project was established in consultation between Caltrans and the City in accordance with Section 106 Programmatic Agreement Stipulation 8.A. For this project, two Areas of Potential Effects were established: an archaeological Area of Potential Effects and an architectural Area of Potential Effects. The archaeological Area of Potential Effects was established from the project footprint and encompasses the extent of ground disturbance associated with the Build Alternative. The archaeological Area of Potential Effects is approximately 96.18 acres, measures 1.5 miles long, and ranges in width between 163 and 2,643 feet. The architectural Area of Potential Effects was established from the project footprint and encompasses all parcels with built environment features that have the potential to be affected by the Build Alternative. The architectural Area of Potential Effects is approximately 117.86 acres, measures 1.5 miles long, and ranges in width between 163 and 3,107 feet. Figure 2-23, Area of Potential Effects, shows both Areas of Potential Effects.

Field Survey

An archaeological field survey was conducted from June 17, 2019, to June 18, 2019, for the Historic Property Survey Report. Approximately 79 percent of the archaeological Area of Potential Effects was surveyed for the project. Approximately 21 percent of the archaeological Area of Potential Effects was not surveyed, in part due to restrictions to enter private properties.

Supplemental Area of Potential Effects

In response to a minor change in the limits of project disturbance and an associated adjustment to the project's Area of Potential Effects, a Supplemental Historic Property Survey Report was prepared in August 2021. As shown in Figure 2-23, the Additional Area of Potential Effects (also referred to as the "Supplemental Area of Potential Effects") includes the additional extent of ground disturbance associated with the Build Alternative for the project. The Supplemental Area of Potential Effects is 16.4 acres in size.

The original records search and literature review were used to evaluate the Supplemental Area of Potential Effects. The records search and literature review did not identify any previously recorded built environment or archaeological resources within the Supplemental Area of Potential Effects. Three previously recorded archaeological resources are within a 0.25-mile radius of the Supplemental Area of Potential Effects and include lithic debitage, tool scatters, and an isolated chert projectile point fragment. Twenty-nine cultural resources reports have been completed within 0.25 mile of the Supplemental Area of Potential Effects, one of which included a portion of the Supplemental Area of Potential Effects.

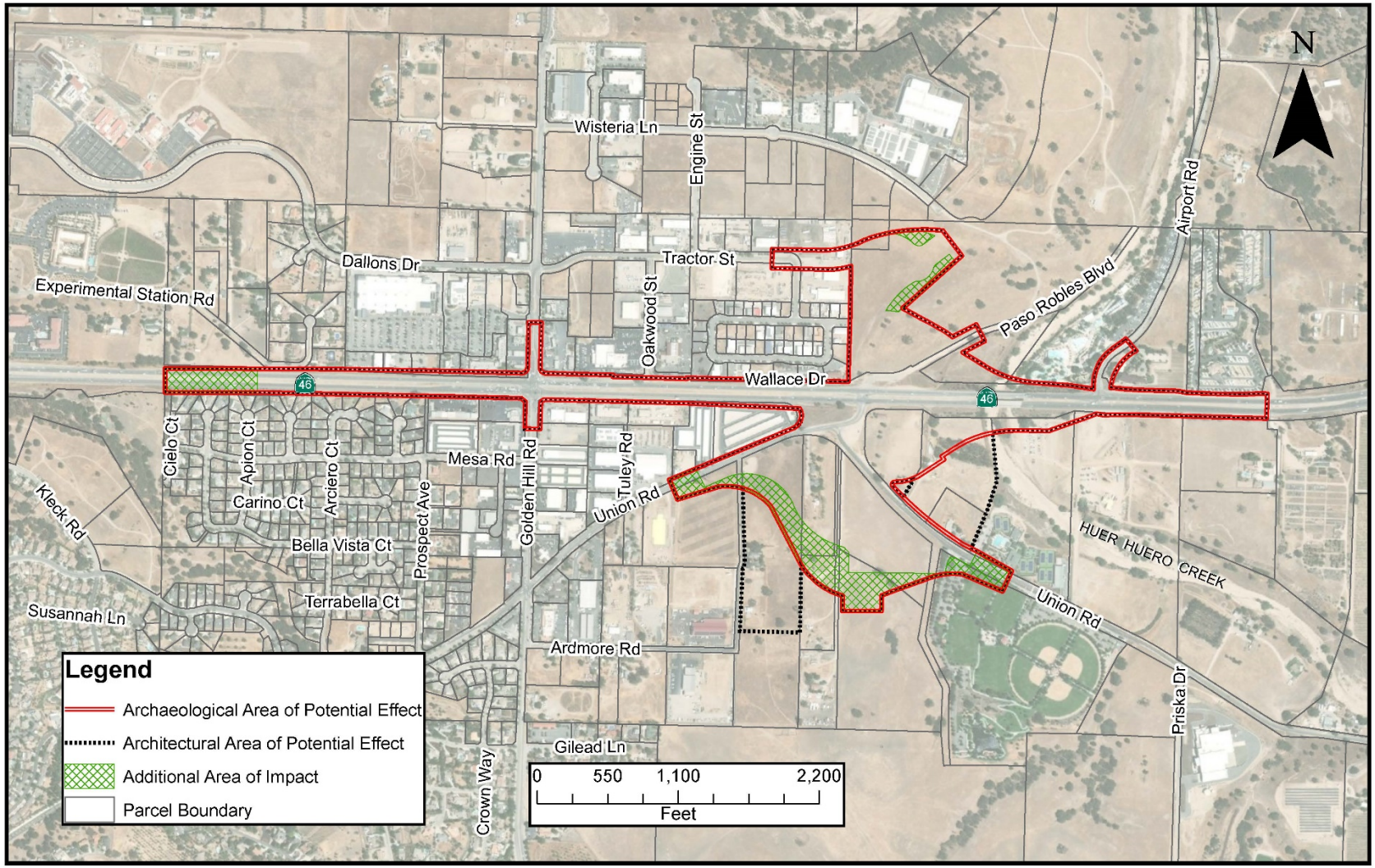
Supplemental Field Survey

A second archaeological field survey was conducted on March 16, 2021, for the Supplemental Historic Property Survey Report. Approximately 73 percent of the Supplemental Area of Potential Effects was surveyed for the project. Approximately 27 percent of the Supplemental Area of Potential Effects was not surveyed, in part due to restrictions to enter private properties. Based on the archaeological field survey, no archaeological or cultural resources were seen within the Supplemental Area of Potential Effects.

Supplemental Native American Consultation

Caltrans conducted a second round of consultation with the same pertinent Native American contacts identified in the 2018 Native American Heritage Commission initial consultation on June 9, 2021, to identify potential resources within the Supplemental Area of Potential Effects. Chapter 4.0, Comments and Coordination, provides additional detail regarding these Native American consultation efforts.

Figure 2-23 Area of Potential Effects



Results

Based on the archival research performed as part of the Historic Property Survey Report, the records search identified no archaeological resources within the Area of Potential Effects and three archaeological cultural resources within 0.25 mile of the Area of Potential Effects. The archaeological field survey, performed as part of the Historic Property Survey Report, identified no archaeological cultural resources within the Area of Potential Effects.

Regarding historic resources, the Historic Property Survey Report identified three resources located within the architectural Area of Potential Effects that were identified as historic-period built-environment resources that would require National Register and California Register evaluations. Table 2.32, Resources Evaluated for the National and California Registers, lists the identified historic-period resources that were evaluated within the Historic Property Survey Report. Figure 2-24, Identified Historic Resources, shows the locations of each resource. Caltrans requested the State Historic Preservation Officer's concurrence on the determinations of eligibility shown in Table 2.32, and the State Historic Preservation Officer concurred on April 16, 2020.

As shown in Table 2.32, Map Resource-2 and Map Resource-3 (residential properties located at 2930 and 2940 Union Road in Paso Robles) were determined ineligible because they do not maintain significant associations within a historic context and/or maintain integrity. As noted above, the State Historic Preservation Officer concurred with this finding on April 16, 2020.

Table 2.32 Resources Evaluated for the National and California Registers

Map Resource Identification	Resource Name	Assessor's Parcel Number	Address/Location	Property Type	Eligibility for National or California Registers
Map Resource-1	Johnson House	025-371-012	2965 Union Road, Paso Robles	Residential	Yes
Map Resource-2	2930 Union Road	025-362-003	2930 Union Road, Paso Robles	Residential	No
Map Resource-3	2940 Union Road	025-362-004	2940 Union Road, Paso Robles	Residential	No

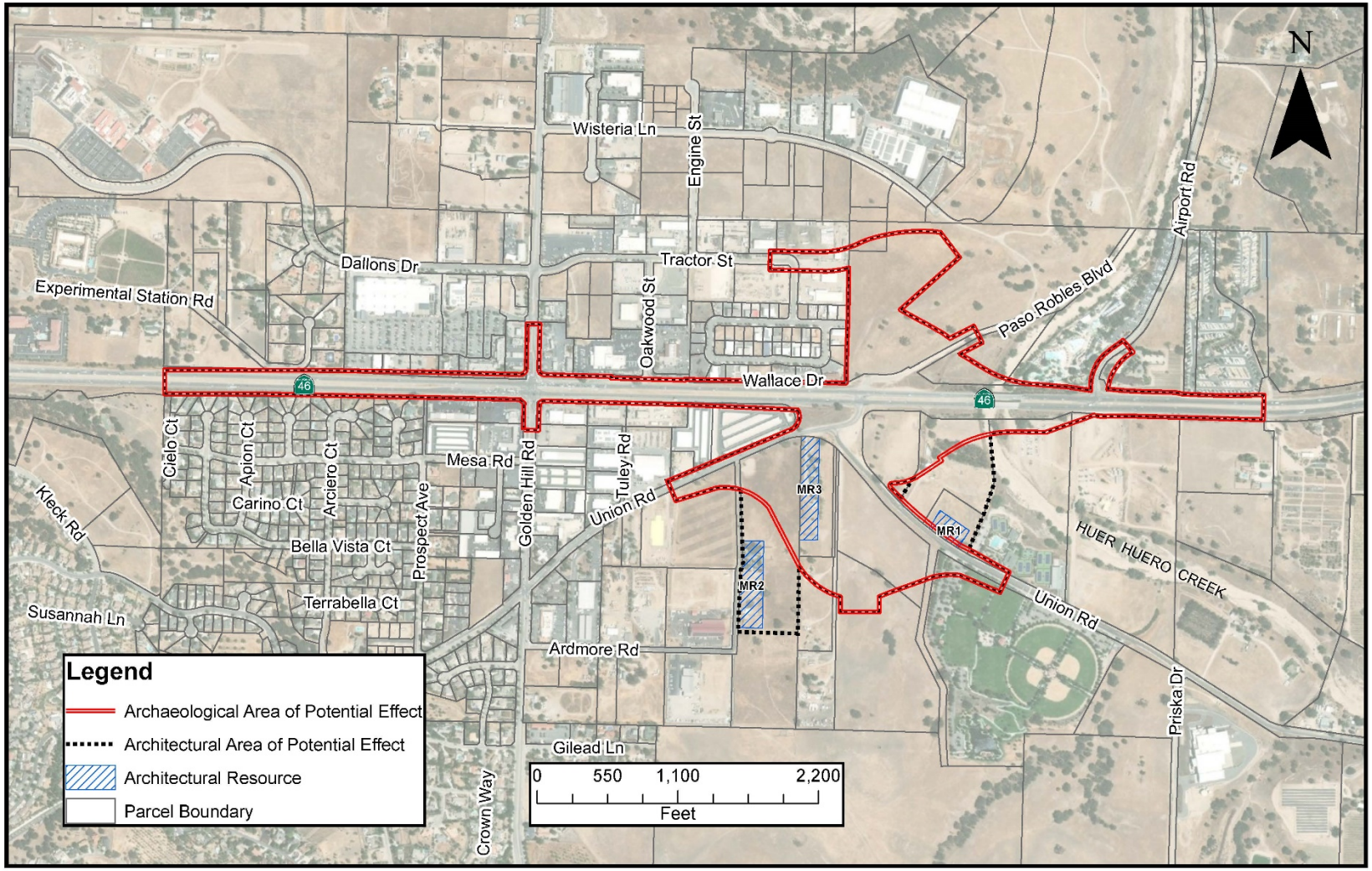
Source: Michael Baker International, Historic Property Survey Report for the State Route 46 East/Union Road Intersection Improvements project, July 2020.

One property was determined eligible for listing in the National Register of Historic Places and California Register of Historical Resources and is, therefore, a historic property. The Johnson House (Map Resource-1),

constructed in 1888-90, is eligible as a single building. Four other buildings, structures, and spaces that share the parcel with the Johnson House were determined ineligible individually or as contributing resources because these features were constructed after the period of significance.

The Johnson House is an unreinforced masonry building constructed between 1888 and 1890. The house was determined eligible for listing in the National and California Registers under criterion C/3 because it embodies the distinctive characteristics of a type, period, and method of construction of a late 19th century National Folk-style residence constructed of brick by family and friends of the Johnson family and using the technology available at the time. The Johnson House is also in the form and layout indicative of the style and modest means of the family for whom it was constructed. Character-defining features of the resource include the unreinforced masonry brick foundation and walls, original doors, original double-hung windows, arched window and door openings, second-story awning windows, interior brick chimney, hipped roof, nearly square ground plan, and interior room layout. Noncontributing features of the resource include the plywood window replacement, slush mortar, corrugated metal roof, and wood and metal remnants of the porch. Thus, the Johnson House appears eligible for listing in the National and California Registers, and the State Historic Preservation Officer concurred with this finding on April 16, 2020.

Figure 2-24 Identified Historic Resources



Environmental Consequences

Temporary Impacts

No-Build Alternative

Under the No-Build Alternative, there would be no construction activity, and adverse impacts to cultural resources would not occur.

Build Alternative (Phases 1 and 2)

Archaeological Resources

As noted in the Historic Property Survey Report and Supplemental Historic Property Survey Report, the records search identified no archaeological resources within the Area of Potential Effects or Supplemental Area of Potential Effects and three archaeological resources within 0.25 mile of the Area of Potential Effects and Supplemental Area of Potential Effects. Approximately 96 percent of the total archaeological Area of Potential Effects has been surveyed previously, and no archaeological resources are known to exist within the archaeological Area of Potential Effects. Despite multiple attempts to gain site access to the entire project site, four percent of the archaeological Area of Potential Effects remains unsurveyed. Even though most of the Area of Potential Effects has been disturbed by previous roadway construction, residential development, and agricultural use, prehistoric and historic-period archaeological sensitivity within the Area of Potential Effects is moderate, mainly because the project would extend up to 10 feet below the ground surface.

In accordance with Section 106 and Assembly Bill 52, Caltrans distributed letters to potentially affected Native American tribes (as identified by the Native American Heritage Commission), notifying each tribe of the opportunity to consult with Caltrans regarding the proposed project. No responses were received. As part of the Supplemental Historic Property Survey Report for the project, letters were distributed again to the same contacts on June 9 and 11, 2021. Two responses were received from the tribes. Refer to Chapter 4.0, Comments and Coordination, of this Initial Study/Environmental Assessment for information regarding efforts undertaken by Caltrans to consult pertinent Native American tribes to identify tribal cultural resources in the archaeological Area of Potential Effects and the Supplemental Area of Potential Effects.

To address concerns identified by tribes under Section 106 and Assembly Bill 52 and further minimize impacts to tribal cultural resources, the project would implement minimization measure Cultural Resources-1, which would require archaeological and Native American construction monitoring during ground-disturbing activities in areas sensitive for unknown buried cultural resources.

Because 100 percent of the Area of Potential Effects could not be surveyed, Caltrans, pursuant to Programmatic Agreement Stipulation 12, is taking a phased approach to the identification, evaluation, and application of the

Criteria of Adverse Effect for this undertaking. As part of this approach, the project has included the preparation of a project-specific Programmatic Agreement between Caltrans and the State Historic Preservation Officer, in addition to a Cultural Resources Management Plan. The Programmatic Agreement and Cultural Resources Management Plan provide guidance on a phased approach to ensure greater efficiency in the compliance process while enabling components of the Build Alternative to move forward. The phasing plan includes field evaluations of newly identified archaeological resources on parcels that have not previously been surveyed. Caltrans will implement a strategy of minimization and/or avoidance of direct or indirect effects on any resources that appear to meet the National Register and/or California Register criteria of eligibility.

The Programmatic Agreement and Cultural Resources Management Plan provide a detailed plan related to requirements for additional analysis and steps required to ensure that adverse effects to archaeological resources do not occur during the construction of the Build Alternative. Key components of the Programmatic Agreement and Cultural Resources Management Plan pertain to:

- A pedestrian survey of any unsurveyed parcels within the Area of Potential Effects, as well as an Extended Phase 1 survey of portions of the Area of Potential Effects for buried site sensitivity;
- Preparation of a Supplemental Archaeological Survey Report based on the survey and Extended Phase 1 findings;
- Dependent on the findings of the Supplemental Archaeological Survey Report, preparation of a Phase 2 Report and Finding of Effect; and
- In the event the Phase 2 Report/Finding of Effect identifies an adverse effect on a cultural resource, the performance of a Phase 3 Data Recovery program would be conducted to resolve adverse effects.
- A Monitoring Plan, facilitated by the City in coordination with Caltrans, would require archaeological and Native American construction monitoring during ground-disturbing activities in areas sensitive for unknown buried cultural resources.

Minimization measure Cultural Resources-1 would require that the project adhere to the requirements of the Programmatic Agreement and Cultural Resources Management Plan to minimize potential impacts to cultural resources as a result of the Build Alternative. With the implementation of minimization measure Cultural Resources-1, effects related to archaeological resources during construction would not be adverse.

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, California Health and Safety Code Section 7050.5 states that further disturbances and activities should stop in any area or nearby area suspected to overlie remains, and the County coroner should be contacted. If the coroner thinks the remains are Native American, the coroner would notify the Native American Heritage Commission, who, pursuant to Public Resources Code Section 5097.98, would then notify the Most Likely Descendant. At this time, the person who discovers the remains would contact Terry Joslin, Caltrans District 5 Native American Coordinator, so that she may work with the Most Likely Descendant on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.

Historic Resources

As noted above, one historic property occurs within the architectural Area of Potential Effects. The Johnson House is the only property that is determined to be eligible for listing in the National Register of Historic Places and California Register of Historical Resources, and the State Historic Preservation Officer concurred with this finding on April 16, 2020.

Proposed improvements near the Johnson House include realigning the existing Union Road. Construction activities are proposed within 25 feet of the Johnson House. While the Johnson House is outside of the area of direct impact associated with the Build Alternative, the Johnson House could be subject to temporary construction-related vibration impacts.

Road removal and construction would include site preparation, trenching, grading, and paving activities. Equipment to be used would be large bulldozers, loaded trucks, small bulldozers, jackhammers, and static rollers.

Based on the Finding of Effect, the Johnson House is an approximately 130-year-old unreinforced masonry building showing signs of spalling and cracking due to water damage and past earthquakes. It is treated as a Category 4 building, which is defined as “Buildings extremely susceptible to vibration damage,” as identified by the Federal Transportation Administration. As noted in the Finding of Effect, the peak particle velocity threshold associated with ground-borne vibrations for Category 4 buildings is 0.12 peak particle velocity inches per second.

Table 2.33, Typical Vibration Levels for Construction Equipment, lists the expected equipment to be used for construction within the vicinity of the Johnson House and shows the expected vibration level from each piece of equipment at distances of 25 feet, 35 feet, and 40 feet.

Table 2.33 Typical Vibration Levels for Construction Equipment

Equipment	Vibration Level at 25 Feet Peak Particle Velocity (Inches per Second)	Vibration Level at 35 Feet Peak Particle Velocity (Inches per Second)	Vibration Level at 40 Feet Peak Particle Velocity (Inches per Second)
Vibratory Roller	0.210	0.127	0.104
Hoe Ram	0.089	0.054	0.044
Large Bulldozers	0.089	0.054	0.044
Loaded Trucks	0.076	0.046	0.038
Jackhammer	0.035	0.021	0.017
Small Bulldozers	0.003	0.002	0.001

Source: Michael Baker International, Finding of Effect for the State Route 46 East/Union Road Intersection Improvements Project, November 2021.

As shown in Table 2.33, using vibratory rollers would exceed the peak particle velocity threshold for Category 4 buildings of 0.12 peak particle velocity inches per second if used 25 to 35 feet from the Johnson House.

To minimize potential ground-borne vibration impacts to the Johnson House, avoidance and minimization measure Cultural Resources-2 would require the preparation of a vibration monitoring plan. The vibration monitoring plan would be completed in accordance with the Caltrans Transportation and Construction Vibration Guidance Manual and should prevent the use of a vibratory roller within 35 feet of the Johnson House and instead require the use of a static roller. Based on the Finding of Effect prepared for the project, Table 2.34, Static Roller Vibration Levels, shows the expected ground-borne vibration levels in peak particle velocity inches per second would be related to the Johnson House with the implementation of static rollers.

Table 2.34 Static Roller Vibration Levels

Equipment	Vibration Level at 25 Feet Peak Particle Velocity (Inches per Second)	Vibration Level at 35 Feet Peak Particle Velocity (Inches per Second)
Static Roller	0.151	0.115

Source: Michael Baker International, Finding of Effect for the State Route 46 East/Union Road Intersection Improvements project, November 2021.

As shown in Table 2.34, the usage of static rollers may produce ground-borne vibration levels below the 0.12 peak particle velocity inches per second threshold for Category 4 buildings at 35 feet. However, the static rollers may produce ground-borne vibration levels above the 0.12 peak particle velocity inches per second threshold at 25 feet. Due to the Build Alternative's potential for exceeding the threshold, vibration monitoring would be implemented and enforced when static rollers are used within 35 feet of the Johnson House site (avoidance and minimization measure Cultural Resources-3). Vibration monitoring would be carried out by a qualified professional who would ensure that vibration levels do not exceed the 0.12 peak particle velocity inches per

second threshold for Category 4 buildings. In addition, minimization measure Cultural Resources-4 would require that a preconstruction meeting is held for construction personnel to inform crews of the sensitivity of the Johnson House and provide details related to the vibration management plan.

The historical resource would not be demolished or materially altered in an adverse manner, and the physical characteristics that convey its historical significance and justify its eligibility for inclusion in the California Register would remain intact and unchanged. Based on the analysis within the Finding of Effect, a Finding of No Adverse Effect without Standard Conditions applies to the Johnson House. With the implementation of avoidance and minimization measures Cultural Resources-2 through Cultural Resources-4, effects related to the Johnson House would not be adverse.

Permanent Impacts

No-Build Alternative

Under the No-Build Alternative, the proposed improvements would not occur, and there would be no adverse permanent effects on cultural resources.

Build Alternative (Phases 1 and 2)

Regarding archaeological resources, the primary concern related to impacts under the Build Alternative is earthwork and ground disturbance during the short-term construction process. The Build Alternative would not include routine or substantive ground-disturbing activities during long-term operations; thus, adverse permanent effects on archaeological resources would not occur.

Regarding historic resources (in other words, the Johnson House), on-road vehicles are typically not considered to be significant sources of ground-borne vibration that would cause structural damage to nearby buildings. As a result, long-term operational activities associated with the Build Alternative would not involve the use of any equipment or processes that would result in potentially adverse levels of ground vibration. With the implementation of avoidance and minimization measures Cultural Resources-1, Cultural Resources-2, Cultural Resources-3, and Cultural Resources-4, long-term effects related to historic resources would not be adverse.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures would be implemented to protect cultural resources.

- **Cultural Resources-1:** The project would adhere to the requirements specified in the Programmatic Agreement between the California Department of Transportation and the California State Historic Preservation Officer Regarding the State Route 46 East/Union Road Intersection Improvements (dated September 2022) and the Cultural

Resources Management Plan for the State Route 46 East/Union Road Intersection Improvements (dated August 2022).

- **Cultural Resources-2:** Before construction activities occur within 35 feet of the Johnson House, a vibration monitoring contractor would be retained to prepare a vibration monitoring plan according to the specifications outlined in the Caltrans Transportation and Construction Vibration Guidance Manual. The monitoring plan would be submitted to the project engineer, Caltrans project manager, and Caltrans architectural historian for review and approval. The vibration monitoring plan would include a provision that prevents using a vibratory roller within 35 feet of the Johnson House and instead requires using a static roller. Due to the potential for exceeding the threshold, a vibration monitoring plan and vibration monitoring would be required when static rollers are used within 35 feet of the Johnson House.
- **Cultural Resources-3:** Vibration monitoring by a qualified professional would be completed by the vibration monitoring contractor within 35 feet or less of the Johnson House. If vibration exceeds the 0.12 peak particle velocity inches per second threshold, the vibration monitor contractor would have the authority to stop construction and identify alternative ways to complete project construction within 35 feet or less of the Johnson House.
- **Cultural Resources-4:** Before the start of construction activities near the Johnson House, a preconstruction meeting would be conducted to inform construction crews of the sensitivity of the Johnson House and to provide details of the vibration monitoring plan, especially to those planned to operate vibratory or static rollers.

2.2 Physical Environment

2.2.1 Hydrology and Floodplain

Regulatory Setting

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 Code of Federal Regulations 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments.
- Risks of the action.
- Impacts on natural and beneficial floodplain values.

- Support of incompatible floodplain development.
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project.

The base floodplain is defined as "the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year." An encroachment is defined as "an action within the limits of the base floodplain."

Affected Environment

This section is based on the Location Hydraulic Study (dated January 2021), Summary Floodplain Encroachment Report (dated February 2022), Water Quality Assessment Report (dated January 2022), and Structure Preliminary Geotechnical Report (dated December 2018) prepared for the proposed project.

The project site is in the City of Paso Robles and falls within the boundaries of Federal Emergency Management Agency Flood Insurance Rate Map Panel 06079C0394G (revised November 16, 2012, for San Luis Obispo County, California, and incorporated areas). As illustrated in Figure 2-25, Federal Emergency Management Agency Flood Zone Map, the proposed project is within two mapped flood designations described below.

Portions of the project site within the Huer Huero Creek are classified as Zone A. Zone A are areas that have a 1 percent probability of flooding every year (also known as the "100-year floodplain") and where predicted flood water elevations have not been established. Properties in Zone A are considered to be at high risk of flooding under the National Flood Insurance Program.

Areas outside the Huer Huero Creek are identified as Zone X. Zone X areas are characterized as areas determined to be outside the 0.2 percent annual chance of flood. Properties in Shaded Zone X are considered to be at low risk of flooding under the National Flood Insurance Program.

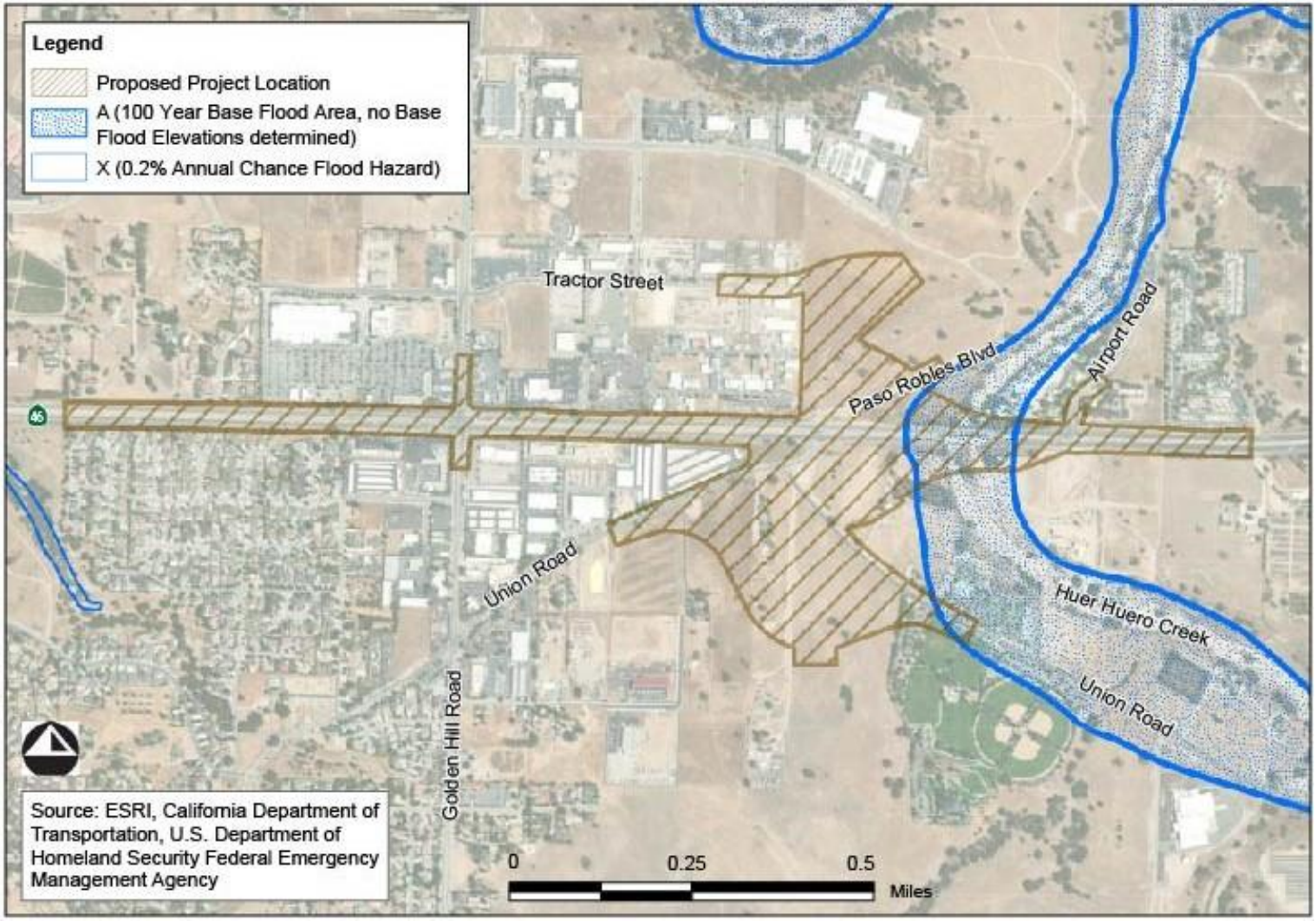
Topography

The existing topography within the project site along State Route 46 East (State Route 46) gently slopes down from the west to the east and the north to the south extents. At the western extent of the project site, the elevation is approximately 808.5 feet. From the western extent to the Huer Huero Creek Bridge is a low point with an elevation of 765.5 feet and a change of about 43 feet over a length of approximately 3,631 feet. The project's eastern extent has an elevation of approximately 805.6 feet, which is an increase of about 40 feet over a length of approximately 2,194 feet. The northern extent of the project has an elevation of 808.1 feet, and the southern extent is 757.4 feet, which is a change of about 51 feet over 3,863 feet. Steep slopes that would be prone to erosion exist onsite at the following locations:

- Existing State Route 46/Union Road intersection;

- Existing Huer Huero Creek Bridge abutments and embankments;

Figure 2-25 Federal Emergency Management Agency Flood Zone Map



- Existing State Route 46/Airport Road intersection;
- Proposed Union Road roundabout south of the proposed State Route 46 eastbound off-ramp and on-ramp; and
- Proposed Paso Robles Boulevard cul-de-sac.

When stormwater falls on the existing State Route 46 within the project area, it either sheet flows to the pervious median and into existing grated inlets or to the paved shoulder and is controlled by a curb toward grated inlets or sheet flows to a pervious shoulder area. Ultimately, the stormwater that falls within the project limits is discharged into Huer Huero Creek. The Huer Huero Creek is one of the many creeks that serve as the headwaters for the Salinas River Watershed. The Salinas River Watershed is bound to the northeast by the Gabilan Range, the Diablo Range, and the Cholame Hills. The Santa Lucia Range bounds the Salinas River Watershed to the southwest.

The dry chaparral interior climate in the region typically has warm, dry summers and rainy winters. Most rainfall occurs in the region during winter and early spring. The average annual high temperature is 89 degrees Fahrenheit, and the average low temperature is 37 degrees Fahrenheit. The average annual precipitation near the project site is about 13.62 inches.

Groundwater Hydrology

The Paso Robles Subbasin within the Salinas Valley Groundwater Basin covers approximately 932 square miles (approximately 597,000 acres), and it is bounded by the Temblor Range and the San Andreas Fault to the east, the La Panza Range to the south, and the Santa Lucia Range and the Rinconada Fault to the west. Per the California Department of Water Resources Water Data Library, the nearest groundwater well with current groundwater level data is approximately 3.6 miles northeast of the project. Moreover, it is on private land near the Links Golf Course of Paso Robles, near the intersection of Jardine Road and Oak Tree Valley Road. The depth of groundwater at Well Number 356813N1206042W001 in April 2019 was approximately 215 feet. According to California's Groundwater Bulletin 118, groundwater in the Paso Robles Subbasin of the Salinas Valley Groundwater Basin typically has high levels of calcium bicarbonate with an average total dissolved solids concentration of approximately 614 milligrams per liter.

A preliminary geotechnical study of the groundwater hydrology within the project area was conducted, and slightly moist to moist conditions were found in the upper 10 to 15 feet. Free subsurface water was found between 39 and 44 feet.

Geology/Soils/Soil Erosion Potential

Onsite soils generally consist of dense sand and varying amounts of gravel in the upper 15 to 20 feet. Below the sand materials, at depths of around 15 to 20 feet, clayey soils with varying concentrations of silt and sand are noted.

Due to the high sand and gravel contents of the recent and older alluvium and stream channel deposits, soils within the project area are found to be moderately susceptible to erosion. The existing Huer Huero Creek Bridge embankments are stabilized with riprap. The top of the riprap material was estimated to be about 10 feet above the bottom of the creek bed. However, the soil has accumulated along the riprap during moderate creek flows but was eroded back to the riprap in some areas. According to the Structure Preliminary Geotechnical Report, scour depths for bridge piers in the creek were estimated at 8 to 10 feet deep.

Watershed Characteristics and Beneficial Uses

A beneficial use identifies the ways that water can be used for the benefit of people and/or wildlife. The Water Quality Control Plan for the Central Coastal Basin identifies 20 beneficial uses for the Salinas River Watershed (Salinas Hydrologic Unit 309), which are agricultural supply, preservation of biological habitats of special significance, cold freshwater habitat, commercial and sport fishing, estuarine habitat, freshwater replenishment, groundwater recharge, industrial service supply, migration of aquatic organisms, municipal and domestic supply, navigation, hydropower generation, industrial process supply, rare, threatened, or endangered species, water contact recreation, noncontact water recreation, shellfish harvesting, spawning, reproduction, and/or early development, warm freshwater habitat, and wildlife habitat. The beneficial uses identified for the Huer Huero Creek are agricultural supply, commercial and sport fishing, groundwater recharge, municipal and domestic supply, rare, threatened, or endangered species, water contact recreation, noncontact water recreation, warm freshwater habitat, and wildlife habitat.

Environmental Consequences

No-Build Alternative

Under the No-Build Alternative, none of the proposed project improvements would be implemented; therefore, there would be no impacts related to hydrology and floodplains.

Build Alternative (Phases 1 and 2)

The Summary Floodplain Encroachment Report, which includes the Location Hydraulic Study as an appendix, determined that implementing the Build Alternative would not introduce additional risk for traffic disruptions or loss of life and property. Additionally, the project does not support incompatible floodplain development; the area is fully developed and participating in the National Flood Insurance Program. Project improvements that occur within the Zone A floodplain are limited to the construction of a bridge, including columns in the waterway for the on-ramp and off-ramp, and minor roadway improvements (grind and overlay work) along the existing Union Road to accommodate the realignment of Union Road north of Barney Schwartz Park, which would not impact the floodplain as the project is conforming to an existing road. The Summary Floodplain Encroachment Report evaluated the

risk associated with the floodplain encroachments on an economic and/or noneconomic basis. The Summary Floodplain Encroachment Report determined that the combined Assessed Risk Level for the proposed project is "Low Risk."

Hydraulic Analysis

The Hydraulic Analysis determined that the proposed improvements would result in a localized rise in the water surface elevation at the Huer Huero Creek. The allowable change in water surface elevation is a cumulative 1-foot rise over the base flood elevation for Zone A floodplains. The Build Alternative proposes to construct new storm drainage features, such as infiltration basins, bioretention, bioswale, and a conveyance swale to reduce the velocities and volume of runoff to pre-project conditions. These drainage features are anticipated to decrease the sediment loading potential to pre-project conditions. Accordingly, the Huer Huero Creek water surface level would not exceed the allowable 1-foot rise prescribed by the Federal Emergency Management Agency regulations. As a result, the project would not be required to file a Conditional Letter of Map Revision during the final design.

- 100-Year Floodplain Encroachment: The Build Alternative would not result in a "significant encroachment" as defined in 23 Code of Federal Regulations 650.105. Although the project site crosses a mapped Zone A floodplain, no floodplain development would occur as part of the project. Additionally, within the 100-year flood zone, the project bridge foundations (pile caps) would be set at a minimum of 5 feet below the estimated scour depth. Project implementation is not anticipated to result in long-term degradation or erosion. The proposed improvements associated with the Build Alternative are classified as "Low Risk."
    - Potential Risk from Longitudinal Encroachment: Caltrans defines a longitudinal encroachment as an encroachment that is parallel to the direction of flow. A transverse encroachment is an encroachment that is perpendicular or skewed to the direction of flow. The proposed project would cross over the Huer Huero Creek, and the proposed roadway improvements (grind and overlay work) along the existing Union Road north of Barney Schwartz Park would not impact the floodplain as the project is conforming to an existing road; therefore, no longitudinal encroachment would occur.
    - Potential Risk to Life and Property: The risk to life and property is evaluated by a potential Q100 backwater (Base Flood) for residences, other buildings, and crops. The potential risk to life and property would remain unchanged as a result of the Build Alternative. The project would not change Channel Freeboard or create a potential overtopping condition. According to the Summary Floodplain Encroachment Report, the bridge sections for the on-ramps and off-ramps proposed in Phase 2 would match the low chord elevation of the existing bridge.

There would be sufficient freeboard between the 100-year water surface elevation (WSE) and the proposed bridges. Therefore, the potential for traffic disruptions due to the influences of the Build Alternative on hydraulics is determined to be minor.

- Potential Risk to Natural and Beneficial Floodplain Values: The project would construct minor permanent improvements consisting of new bridge piers within the floodplain boundary. Additionally, minor roadway improvements (grind and overlay work) are proposed within the floodplain boundary, along the existing Union Road north of Barney Schwartz Park; however, the roadway improvements would not impact the floodplain as the project is conforming to an existing road. Therefore, no permanent impacts to the beneficial uses identified above are anticipated. Project improvements that would occur within Zone A do not pose potential risks to natural and beneficial floodplain values.
- Potential Risk for Support of Incompatible Floodplain Development: Redevelopment is limited by City ordinances and zoning, and each construction project in the area is subject to building permits. Because the City is a participating community in the National Flood Insurance Program, the building department administers the National Flood Insurance Program requirements during the building permit process. Therefore, improvements that would occur to the bridges over Huer Huero Creek and minor roadway improvements along the existing Union Road would not further support incompatible floodplain development.

As defined in 23 Code of Federal Regulations 650.105, based on the above analysis, the Build Alternative would not result in a significant floodplain encroachment, and no adverse effects would occur in this regard.

Regarding erosion and sediment control, the Build Alternative would implement Caltrans standardized measures, such as Construction Best Management Practices, that apply to most or all Caltrans projects (for example, including temporary large sediment barriers, soil binders, rock slope protection, revegetation with erosion control seed mix, the use of a 4-to-1 ratio or flatter for slopes, et cetera), and erosion protection in accordance with Section 21 of Caltrans Standard Specifications (2018). The project would be required to adhere to existing temporary construction-related National Pollutant Discharge Elimination System requirements, which would require the preparation and implementation of a Stormwater Pollution Prevention Plan. The Stormwater Pollution Prevention Plan would specify Best Management Practices to be used during project construction to minimize or avoid water pollution, including erosion. Additionally, pursuant to Caltrans' National Pollutant Discharge Elimination System permit requirements, the project would be required to implement a range of design Best Management Practices required under the Caltrans Municipal Separate Storm Sewer

Systems Permit that focus on preventing erosion during project operation (for example, slope/surface protection systems, preservation of existing vegetation, et cetera). The selection of Best Management Practices would be determined during the final design. Further, the project would adhere to the earthwork recommendations provided in the Structure Preliminary Geotechnical Report. With adherence to these required standardized measures, the Build Alternative would not result in significant erosion, and no adverse effects would occur.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures would be required.

2.2.2 Water Quality and Stormwater Runoff

Regulatory Setting

Federal Requirements—Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the Waters of the U.S. from any discernable, confined, and discrete conveyance (known as a point source), such as pipes, ditches, and other constructed drainage systems, unlawful unless the discharge complies with a National Pollutant Discharge Elimination System permit. This act and its amendments are known today as the Clean Water Act. Congress has amended the act several times. In the 1987 amendments, Congress directed discharges of stormwater from municipal and industrial/construction point sources to comply with the National Pollutant Discharge Elimination System permit scheme. The following are important Clean Water Act sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to Waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request.
- Section 402 establishes the National Pollutant Discharge Elimination System, a permitting system for the discharges (except for dredge or fill material) of any pollutant into Waters of the U.S. Regional Water Quality Control Boards administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater from industrial/construction and municipal separate storm sewer systems.
- Section 404 establishes a permit program for the discharge of dredged or fill material into Waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers.

The goal of the Clean Water Act is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

The U.S. Army Corps of Engineers issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effects. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of the U.S. Army Corps of Engineers' Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the U.S. Army Corps of Engineers' decision to approve is based on compliance with the U.S. Environmental Protection Agency's Section 404(b)(1) Guidelines (40 Code of Federal Regulations Part 230) and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines were developed by the U.S. Environmental Protection Agency, in conjunction with the U.S. Army Corps of Engineers, and allow the discharge of dredged or fill material into the Waters of the U.S. only if there is no practicable alternative which would have less adverse effects. The Section 404(b)(1) Guidelines state that the U.S. Army Corps of Engineers may not issue a permit if there is a least environmentally damaging practicable alternative to the proposed discharge that would have lesser effects on Waters of the U.S. and not have any other significant adverse environmental consequences. According to the Section 404(b)(1) Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Section 404(b)(1) Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to Waters of the U.S. In addition, every permit from the U.S. Army Corps of Engineers, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 Code of Federal Regulations 320.4. A discussion of the least environmentally damaging practicable alternative determination, if any, for the document is included in the Wetlands and Other Waters section.

State Requirements—Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the Clean Water Act and regulates discharges to waters of the state. Waters of the state include more than just Waters of the U.S., like groundwater and surface waters which are not considered Waters of the U.S. Additionally, it prohibits discharges of "waste" as defined, and this

definition is broader than the Clean Water Act definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements and may be required even when the discharge is already permitted or exempt under the Clean Water Act.

The State Water Resources Control Board and Regional Water Quality Control Boards are responsible for establishing the water quality standards (objectives and beneficial uses) required by the Clean Water Act and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable Regional Water Quality Control Board's Basin Plan. In California, Regional Water Quality Control Boards designate beneficial uses for all waterbody segments in their jurisdictions and then set criteria necessary to protect those uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the State Water Resources Control Board identifies waters failing to meet standards for specific pollutants. These waters are then state listed in accordance with Clean Water Act Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or nonpoint source controls (National Pollutant Discharge Elimination System or Waste Discharge Requirements), the Clean Water Act requires the establishment of Total Maximum Daily Loads. Total Maximum Daily Loads specify allowable pollutant loads from all sources (point, nonpoint, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The State Water Resources Control Board administers water rights, sets water pollution control policy, issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, Total Maximum Daily Loads, and National Pollutant Discharge Elimination System permits. Regional Water Quality Control Boards are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

National Pollutant Discharge Elimination System Program

Municipal Separate Storm Sewer Systems

Section 402(p) of the Clean Water Act requires the issuance of National Pollutant Discharge Elimination System permits for five categories of stormwater discharges, including Municipal Separate Storm Sewer Systems. A Municipal Separate Storm Sewer System is defined as "any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, channels, and storm drains) owned or operated by a state, City, town, county, or other public body having

jurisdiction over stormwater, that is designed or used for collecting or conveying stormwater." The State Water Resources Control Board has identified Caltrans as an owner/operator of a Municipal Separate Storm Sewer System under federal regulations. Caltrans Municipal Separate Storm Sewer System permits cover all Caltrans rights-of-way, properties, facilities, and activities in the state. The State Water Resources Control Board or the Regional Water Quality Control Board issues National Pollutant Discharge Elimination System permits for 5 years, and permit requirements remain active until a new permit has been adopted.

Caltrans Municipal Separate Storm Sewer System Permit, Order Number 2012-0011-DWQ (adopted on September 19, 2012, and effective on July 1, 2013), as amended by Order Number 2014-0006-EXEC (effective January 17, 2014), Order Number 2014-0077-DWQ (effective May 20, 2014) and Order Number 2015-0036-EXEC (conformed and effective April 7, 2015) has three basic requirements:

1. Caltrans must comply with the requirements of the Construction General Permit;
2. Caltrans must implement a year-round program in all parts of the State to effectively control stormwater and nonstormwater discharges; and
3. Caltrans stormwater discharges must meet water quality standards through the implementation of permanent and temporary (construction) Best Management Practices, to the maximum extent practicable, and other measures as the State Water Resources Control Board determines to be necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the Statewide Stormwater Management Plan to address stormwater pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The Statewide Stormwater Management Plan assigns responsibilities within Caltrans for implementing stormwater management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The Statewide Stormwater Management Plan describes the minimum procedures and practices Caltrans uses to reduce pollutants in stormwater and non-stormwater discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of Best Management Practices. The proposed project would be programmed to follow the guidelines and procedures outlined in the latest Statewide Stormwater Management Plan to address stormwater runoff.

Construction General Permit

Construction General Permit, Order Number 2009-0009-DWQ (adopted on September 2, 2009, and effective on July 1, 2010), as amended by Order Number 2010-0014-DWQ (effective February 14, 2011) and Order Number

2012-0006-DWQ (effective on July 17, 2012). The permit regulates stormwater discharges from construction sites that result in a Disturbed Soil Area of 1 acre or greater and/or smaller sites that are part of a larger common plan of development. By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least 1 acre must comply with the provisions of the Construction General Permit. Construction activities that result in soil disturbances of less than 1 acre are subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activities, as determined by the Regional Water Quality Control Board. Operators of regulated construction sites are required to develop Stormwater Pollution Prevention Plans; implement sediment, erosion, and pollution prevention control measures; and obtain coverage under the Construction General Permit.

The Construction General Permit separates projects into Risk Level 1, 2, or 3. Risk levels are determined during the planning and design phases and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory stormwater runoff, potential of hydrogen and turbidity monitoring, and before-construction and after-construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective Stormwater Pollution Prevention Plan. In accordance with the Caltrans Stormwater Management Plan and Standard Specifications, a Water Pollution Control Program is necessary for projects with a Disturbed Soil Area of less than 1 acre.

Section 401 Permitting

Under Section 401 of the Clean Water Act, any project requiring a federal license or permit that may result in a discharge to a water of the U.S. must obtain a 401 Certification, which certifies that the project will comply with state water quality standards. The most common federal permits triggering 401 Certification are Clean Water Act Section 404 permits issued by the U.S. Army Corps of Engineers. The 401 permit certifications are obtained from the appropriate Regional Water Quality Control Board, dependent on the project location, and are required before the U.S. Army Corps of Engineers issues a 404 permit.

In some cases, the Regional Water Quality Control Board may have specific concerns with discharges associated with a project. As a result, the Regional Water Quality Control Board may issue a set of requirements known as Waste Discharge Requirements under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefitting water quality. Waste Discharge Requirements can be issued to address both permanent and temporary discharges of a project. The

project region is regulated by the Central Coast Regional Water Quality Control Board and the Central Coastal Basin Plan.

Affected Environment

This section is based on the Water Quality Assessment Report prepared for the proposed project dated January 2022.

Surface Streams

Stormwater that falls within the project limits sheet flows to the pervious median and into existing grated inlets or to the paved shoulder and is controlled by a curb toward grated inlets or sheet flows to a pervious shoulder area. Huer Huero Creek receives flow from the project.

Regional Hydrology

The project discharges to Huer Huero Creek, which covers an area of approximately 102,773 acres and is one of the many creeks that serve as the headwaters for the Salinas River Watershed. The Salinas River watershed covers an area of approximately 3,527 square miles and flows northwest through Monterey County to south Monterey Bay near the City of Salinas. The project is in the Salinas River Hydrologic Unit (309), and the Super Planning Watersheds are named Upper Huer Huero Creek and Lower Huer Huero Creek. The Salinas River Watershed is bound to the northeast by the Gabilan Range, the Diablo Range, and the Cholame Hills. The Santa Lucia Range bounds the Salinas River Watershed to the southwest.

Figure 2-26, Project Watershed and Surface Waterbodies Map, shows the proposed project and its location in the watershed. Figure 2-27, Hydrologic Sub-Area Map, shows the proposed project is in the northwestern portion of the Hydrologic Sub Area. The Build Alternative would result in an increase in new impervious areas to approximately 20.9 acres in Phase 1 and 43.8 acres in Phase 2, both of which are less than 0.001 percent of the Huer Huero Creek Watershed.

Figure 2-26 Project Watershed and Surface Waterbodies Map

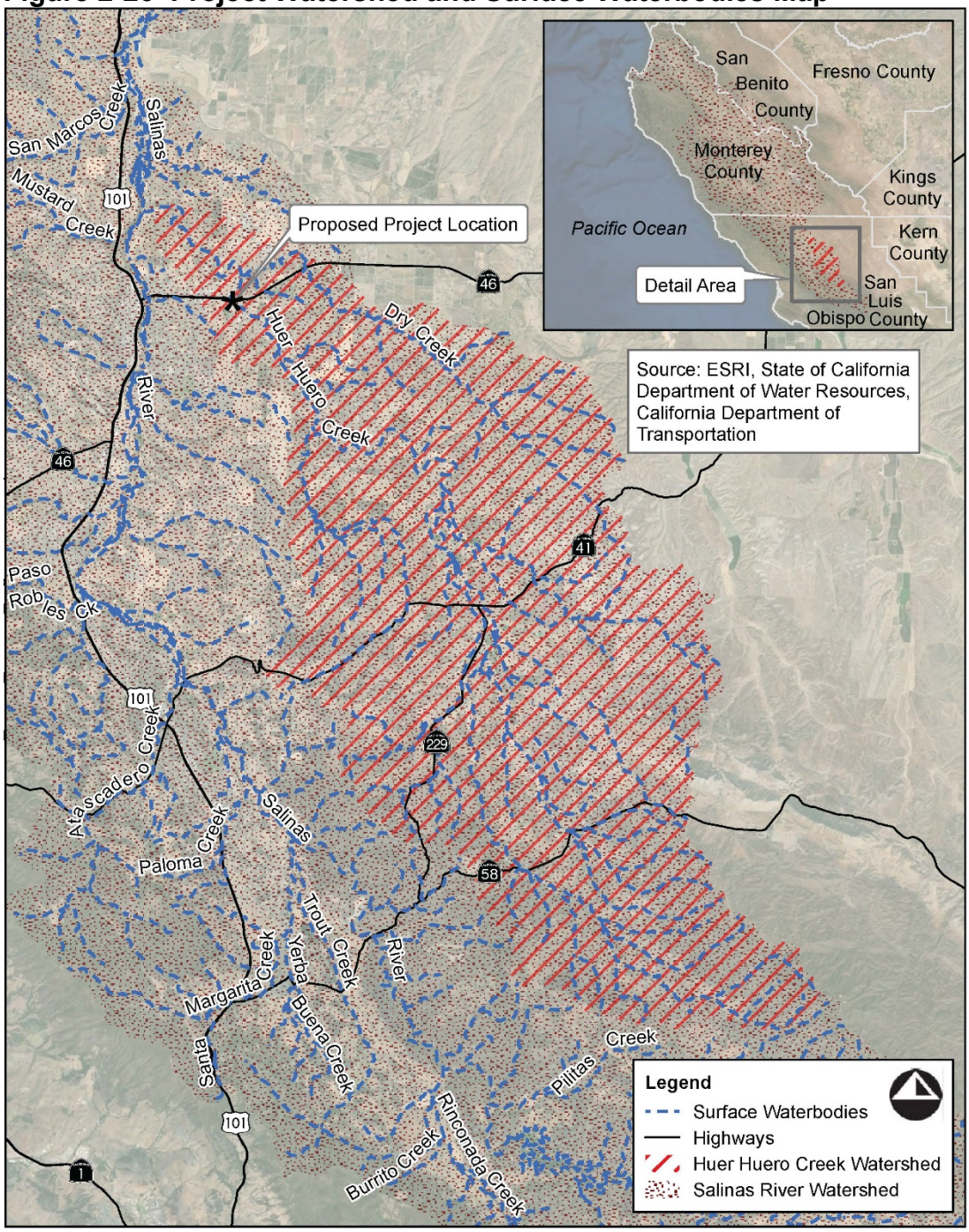
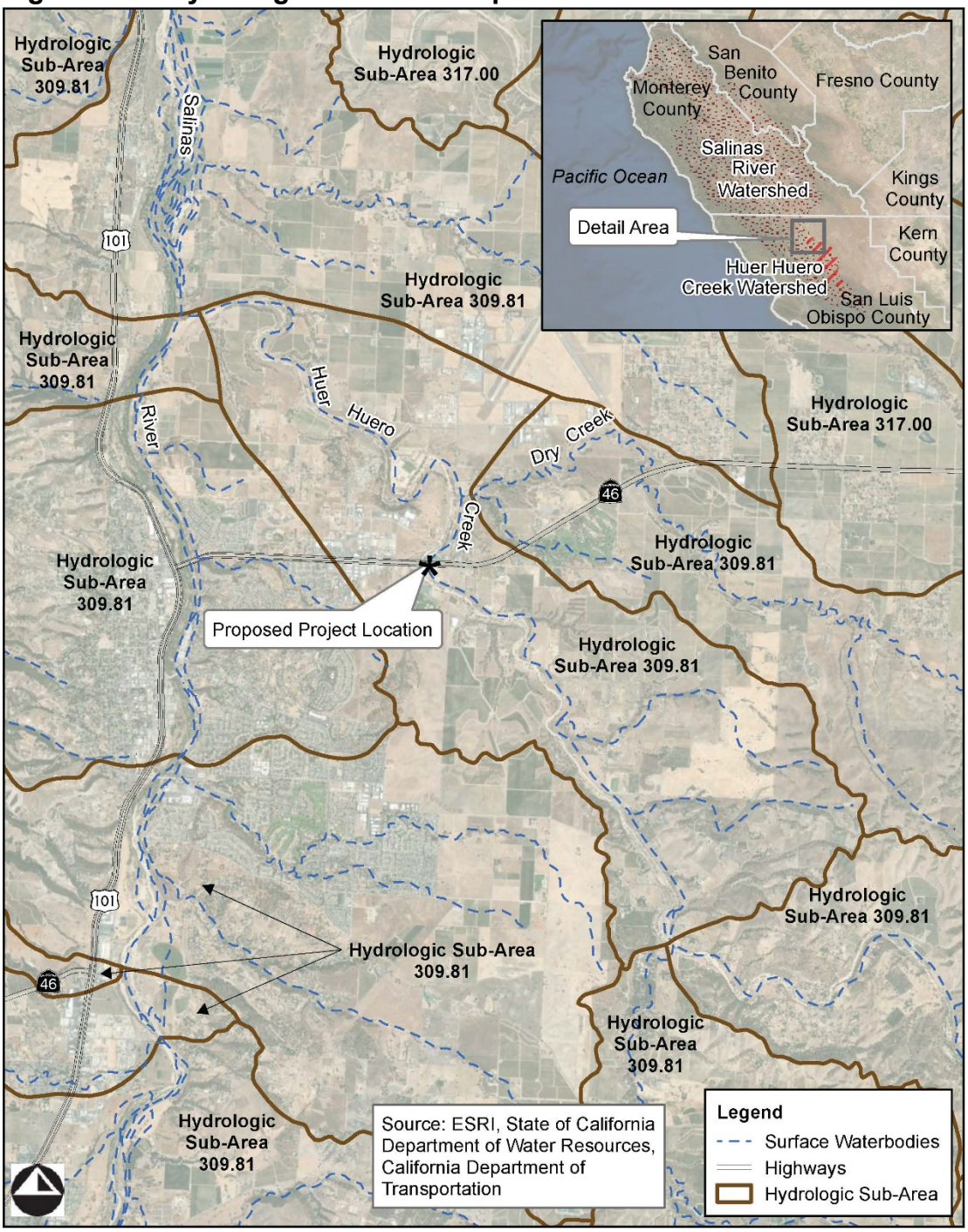


Figure 2-27 Hydrologic Sub-Area Map



Local Hydrology

When stormwater falls on the existing State Route 46 within the project area, it either sheet flows to the pervious median and into existing grated inlets or to the paved shoulder and is controlled by a curb toward grated inlets, or sheet flows to a pervious shoulder area.

Ultimately, the stormwater that falls within the project limits would be discharged into Huer Huero Creek.

Municipal Supply

High-risk areas include highway locations where spills or other releases from Caltrans right-of-way, roadways, or facilities may discharge directly to municipal or domestic water supply reservoirs or groundwater percolation facilities. The Caltrans 2019-2020 District 5 Work Plan indicates that no high-risk areas are within the project area.

Groundwater Hydrology

The Paso Robles Subbasin within the Salinas Valley Groundwater Basin covers approximately 932 square miles (approximately 597,000 acres), and it is bounded by the Temblor Range and the San Andreas Fault to the east, the La Panza Range to the south, and the Santa Lucia Range and the Rinconada Fault to the west. Per the California Department of Water Resources Water Data Library, the nearest groundwater well with current groundwater level data is approximately 3.6 miles northeast of the project. Moreover, it is on private land near the Links Golf Course of Paso Robles, near the intersection of Jardine Road and Oak Tree Valley Road. The depth of groundwater at Well Number 356813N1206042W001 in April 2019 was approximately 215 feet. According to California's Groundwater Bulletin 118, groundwater in the Paso Robles Subbasin of the Salinas Valley Groundwater Basin typically has high levels of calcium bicarbonate with an average total dissolved solids concentration of approximately 614 milligrams per liter.

A preliminary geotechnical study of the groundwater hydrology within the project area was conducted, and slightly moist to moist conditions were found in the upper 10 to 15 feet. Free subsurface water was found between 39 and 44 feet.

Beneficial Uses

The beneficial uses of water are defined in the Central Coast Regional Water Quality Control Board's Basin Plan as those necessary for the survival or well-being of humans, plants, and wildlife. Examples of beneficial uses include drinking water supplies, swimming, industrial and agricultural water supply, and the support of freshwater, marine habitats, and their organisms. Beneficial uses identified for the nearest named water bodies that the project discharges to are defined below.

- Agricultural Supply waters are used for farming, horticulture, or ranching. Uses may include but are not limited to irrigation, stock watering, and supporting vegetation for range grazing.
- Preservation of Biological Habitats of Special Significance waters are used to support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological

Significance, where the preservation or enhancement of natural resources requires special protection.

- Cold Freshwater Habitat waters support cold-water ecosystems that may include but are not limited to preserving and enhancing aquatic habitats, vegetation, and fish and wildlife, including invertebrates.
- Commercial and Sport Fishing waters are used for commercial or recreational collection of fish, shellfish, or other organisms, including, but not limited to, uses involving organisms intended for human consumption or bait purposes.
- Estuarine Habitat waters are used to support estuarine ecosystems, including, but not limited to, preserving or enhancing estuarine habitats, vegetation, fish shellfish, or wildlife (for example, estuarine mammals, waterfowl, shorebirds).
- Freshwater Replenishment waters are used for natural or artificial maintenance of surface water quantity or quality.
- Groundwater Recharge waters are used for natural or artificial recharge of groundwater for purposes that may include, but are not limited to, future extraction, maintaining water quality, or stopping saltwater intrusion into freshwater aquifers.
- Industrial Service Supply waters are used for industrial activities that do not depend primarily on water quality, including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well repressurization.
- Migration of Aquatic Organisms waters are used to support habitats necessary for migration or other temporary activities by aquatic organisms, such as anadromous fish.
- Municipal and Domestic Supply waters are used for community, military, municipal, or individual water supply systems. Uses may include but are not limited to drinking water supply.
- Navigation waters are used for shipping, travel, or other transportation by private, military, or commercial vessels.
- Hydropower Generation waters are used for hydropower generation.
- Industrial Process Supply waters are used for industrial activities that depend primarily on water quality (in other words, waters used for manufacturing, food processing, et cetera).
- Rare, Threatened, or Endangered Species waters are used to support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered.
- Water Contact Recreation waters are used for recreational activities involving contact with water, where ingesting water is reasonably possible.

Uses may include, but are not limited to, swimming, wading, waterskiing, skin and scuba diving, surfing, whitewater activities, fishing, and using natural hot springs.

- Noncontact Water Recreation waters are used for recreational activities involving proximity to water but not normally involving body contact with water where ingesting water would be reasonably possible. Uses may include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, and aesthetic enjoyment in conjunction with the above activities.
- Shellfish Harvesting waters are used to support habitats suitable for the collection of filter-feeding shellfish (for example, clams, oysters, and mussels) for human consumption, commercial, or sport purposes.
- Spawning, Reproduction, and/or Early Development waters are used to support high-quality aquatic habitats suitable for reproduction and early development of fish.
- Warm Freshwater Habitat waters support warmwater ecosystems that may include but are not limited to preserving and enhancing aquatic habitats, vegetation, fish, and wildlife, including invertebrates.
- Wildlife Habitat waters are used to support terrestrial ecosystems, including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (for example, mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

The Basin Plan also identifies beneficial uses for groundwater in the Paso Robles Area Groundwater Basin (which is in the Salinas Hydrologic Unit and the Lower Salinas Valley Hydrologic Area), which is where the project is located. The beneficial uses are the following:

- Agricultural Supply waters are used for farming, horticulture, or ranching. Uses may include but are not limited to irrigation, stock watering, and supporting vegetation for range grazing.
- Municipal and Domestic Supply waters are used for community, military, municipal, or individual water supply systems. Uses may include but are not limited to drinking water supply.
- Industrial Service Supply waters are used for industrial activities that do not depend primarily on water quality, including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well repressurization.

Impairments

The Clean Water Act requires states to identify water bodies that are considered impaired, which means the waterbody does not meet water quality standards. Once a waterbody is listed as impaired, the state is required to

develop a Total Maximum Daily Load to address each pollutant causing the impairment. A Total Maximum Daily Load defines how much of a pollutant load a waterbody can tolerate and still meet water quality standards. The Total Maximum Daily Load is required to account for contributions from point sources (in other words, permitted discharges) and contributions from nonpoint sources, including natural background. Total Maximum Daily Loads allocate allowable pollutant loads for each source and identify management measures that, when implemented, would assure that water quality standards are attained. Through the Regional Water Quality Control Board basin planning process, Total Maximum Daily Loads and Total Maximum Daily Load implementation plans are adopted into a Regional Water Quality Control Board's Basin Plan.

The flow path from the proposed project to the Pacific Ocean was used to determine what water bodies the project could potentially impact. Precipitation that falls within the project limits would discharge into Huer Huero Creek and ultimately to the Pacific Ocean. Huer Huero Creek is not impaired, and Total Maximum Daily Loads have not been established. Table 2.35, Summary of 303(d) Listed Constituents and Total Maximum Daily Load Constituents, shows the downstream water bodies that the project could potentially impact in their order of contact from the project toward the Pacific Ocean.

Table 2.35 Summary of 303(d) Listed Constituents and Total Maximum Daily Load Constituents

Water Body Name	303(d) List Constituent	Total Maximum Daily Load Constituent
Huer Huero Creek	None	None
Salinas River (upper, confluence of Nacimiento River to Santa Margarita Reservoir)	Chloride, potential hydrogen, Sodium, Turbidity	None
Salinas River (middle, near Gonzales Road crossing to confluence with Nacimiento River)	Fecal Coliform, potential hydrogen, Temperature (water), Toxicity, Turbidity	None
Salinas River (lower, estuary near Gonzales Road crossing, watersheds 30910 and 30920)	Benthic Community Effects, Chlordane, Chloride, Chlorpyrifos, Dichlorodiphenyldichloroethylene, Dichlorodiphenyltrichloroethane, Diazinon, Dieldrin, Enterococcus, Escherichia coli, Fecal Coliform, Nitrate, Polychlorinated biphenyls, potential hydrogen, Sodium, Total Dissolved Solids, Toxaphene, Toxicity, Turbidity	Chlorpyrifos, Diazinon, Fecal Coliform, Nitrate, Orthophosphate, Pyrethroid Pesticides, Sediment Toxicity, Unionized Ammonia
Salinas River Lagoon (north)	Chlorpyrifos, Dichlorodiphenyldichloroethylene, potential hydrogen, Toxicity, Temperature (water), Nutrients	None

Source: Michael Baker International, Water Quality Assessment Report, January 2022.

Environmental Consequences

Temporary Impacts

No-Build Alternative

No improvements would occur under the No-Build Alternative; therefore, it would not result in temporary impacts related to water quality or stormwater runoff.

Build Alternative (Phases 1 and 2)

Construction of the Build Alternative could potentially result in water quality impacts associated with the contribution of pollutants to receiving water bodies during the temporary construction process. Pollutants during construction would include sediment, metals, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. Best Management Practices, including construction site Best Management Practices (for example, storm drain inlet protection, temporary large sediment barriers, gravel bed berms, soil stabilization, sediment control, et cetera) and job management Best Management Practices (in other words, wind erosion control, spill prevention and control, stormwater and non-stormwater treatment, waste management and materials, pollution control, dewatering, et cetera), as well as the implementation of minimization measures Water Quality-2 (implementation of a Stormwater Pollution Prevention Plan) and Water Quality-3 (dewatering requirements, if applicable), would minimize these potential impacts related to water quality, including downstream water bodies. The selection of Best Management Practices would be determined during the final design.

The Build Alternative would be required to adhere to existing temporary construction-related National Pollutant Discharge Elimination System requirements, which would minimize impacts in this regard. Compliance with the Construction General Permit would require preparing and implementing a Stormwater Pollution Prevention Plan (minimization measure Water Quality-2). The Stormwater Pollution Prevention Plan would specify Best Management Practices to be used during project construction to minimize or avoid water pollution, thereby reducing potential temporary impacts on water quality. Upon completion of the Build Alternative, a Notice of Termination would be submitted to the State Water Resources Control Board to indicate that construction has been completed. With the implementation of minimization measures Water Quality-2 and Water Quality-3, effects related to water quality would not be adverse.

Permanent Impacts

No-Build Alternative

Under the No-Build Alternative, none of the proposed project improvements would be implemented; therefore, no increase in runoff flow velocities, volumes, peak flow rates, or water quality impacts would occur.

Build Alternative (Phases 1 and 2)

Operation of the Build Alternative would increase impervious surface area, which would also increase stormwater runoff. Potential pollutants associated with the operation of transportation facilities include total suspended solids, sediment from natural erosion, pathogens, heavy metals, petroleum products, polynuclear aromatic hydrocarbons, synthetic organics, including pesticides, herbicides, and polychlorinated biphenyls, and nutrients, such as nitrogen, animal waste, litter, and trash.

According to the Water Quality Assessment Report, the approximate acreage of net new impervious surface area, because of the Build Alternative, would be 8.3 acres for Phase 1 and 22.4 acres for Phase 2. Phase 1 would result in a total impervious surface area of 20.9 acres, and Phase 2 would result in a total impervious surface area of 43.8 acres. When the total impervious surface area of the Build Alternative is compared to the size of the Huer Huero Creek Watershed (over 103,000 acres), this equates to less than 0.001 percent of the watershed area. Thus, the increase in impervious surface area would not result in a substantial increase in runoff and, therefore, would not lead to a negative impact on water quality.

The Build Alternative would not result in substantial water quality impacts to downstream receiving bodies, Huer Huero Creek, and the Pacific Ocean. Pursuant to Caltrans' National Pollutant Discharge Elimination System permit requirements (minimization measures Water Quality-1 and Water Quality-5), the Build Alternative would be required to implement a range of design pollution prevention, treatment, and maintenance Best Management Practices. Design Pollution Prevention Best Management Practices (minimization measure Water Quality-4) are measures required under the Caltrans Municipal Separate Storm Sewer Systems Permit that focus on reducing or eliminating runoff and controlling sources of pollutants during project operation and include, but are not limited to, preservation of existing vegetation and slope/surface protection systems (benching/terracing, slope rounding, reducing gradients by incorporating a 4-to-1 ratio or flatter for slopes, et cetera).

Implementation of Caltrans' treatment Best Management Practices, including, but not limited to, infiltration basins and trenches, biofiltration strips and swales, Austin filter (earthen and concrete), detention (unlined), bioretention (unlined and lined), Delaware filter, and Open Graded Friction Course, and the City's treatment Best Management Practices, including, but not limited to, source control Best Management Practices, structural controls, permanent controls, and Low Impact Development facilities (for example, bioretention facilities, Green/Complete Streets Design Elements, et cetera), would minimize potential impacts related to discharge into the Huer Huero Creek. Maintenance Best Management Practices would include, at a minimum, drain inlet stenciling and adherence to the procedures described in the Caltrans Project Planning and Design Guide and Maintenance Manual. These Best

Management Practices would meet the objective of maximizing vegetated surfaces, preventing downstream erosion, and stabilizing soil areas. The selection of Best Management Practices would be determined during the final design.

Upon adherence to the Caltrans Municipal Separate Storm Sewer Systems Permit, which would require implementing various Best Management Practices to minimize operational water quality impacts, effects on downstream receiving water bodies and aquatic life would not be adverse. With the implementation of minimization measures Water Quality-1, Water Quality-4, and Water Quality-5, long-term effects related to water quality and stormwater runoff would not be adverse.

Avoidance, Minimization, and/or Mitigation Measures

The following minimization measures would be implemented to protect water quality.

- **Water Quality-1:** The project would comply with the requirements prescribed in the Caltrans National Pollutant Discharge Elimination System Statewide Stormwater Permit (Order Number 2012-0011-DWQ, as amended by Order WQ 2014-0006-EXEC, Order WQ 2014-0077-DWQ, Order WQ 2015-0036-EXEC, and Order WQ 2017-0026-EXEC, NPDES Number CAS000003), the City of Paso Robles' requirements per its enrollment in the State Water Resources Control Board's Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (Order Number 2013-0001-DWQ), and the National Pollutant Discharge Elimination System General Permit for Stormwater Discharges of Stormwater Runoff Associated with Construction Activities (Order Number 2009-0009-DWQ, as amended by Order 2010-0014-DWQ and Order 2012-0006-DWQ), and any subsequent permit in effect at the time of construction.
- **Water Quality-2:** A Stormwater Pollution Prevention Plan would be prepared for Phase 1 and Phase 2 and would be implemented to address all construction-related activities, equipment, and materials that have the potential to impact water quality. The Stormwater Pollution Prevention Plan would identify the sources of pollutants that may affect the quality of stormwater and include construction site Best Management Practices to control pollutants, such as sediment control, catch basin inlet protection, construction materials management, and non-stormwater Best Management Practices. Additional Best Management Practices reference material is contained within the Caltrans Project Planning and Design Guide (April 2019) and Caltrans Construction Manual (2018). These include, but are not limited to, temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and other non-stormwater Best Management Practices.

- **Water Quality-3:** If dewatering is required, construction site dewatering would comply with the dewatering requirements of Sections 401 and 402 permits obtained for Phases 1 and 2 at the time of construction. This permit addresses temporary dewatering operations during construction. Dewatering Best Management Practices must be used to control sediment and pollutants, and the discharges must comply with the Waste Discharge Requirements issued by the Central Coast Regional Water Quality Control Board.
- **Water Quality-4:** Design Pollution Prevention Best Management Practices would be implemented, such as preservation of existing vegetation, slope/surface protection systems (benching/terracing, slope rounding, and reducing gradients [incorporate 4 to 1 slopes or flatter]).
- **Water Quality-5:** Caltrans- and City of Paso Robles-approved treatment Best Management Practices would be implemented where feasible and consistent with the requirements of National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements for the State of California, Department of Transportation, Order Number 2012-0011-DWQ, NPDES Number CAS00003, the City of Paso Robles' requirements per its enrollment in the State Water Resources Control Board's Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (Order Number 2013-0001-DWQ), the Central Coast Regional Water Quality Control Board's Postconstruction Stormwater Management Requirements for Development Projects in the Central Coast Region (Resolution Number R3-2013-0032) requirements (applicable within the City of Paso Robles), and any subsequent permits in effect at the time of construction.

  Caltrans treatment Best Management Practices may include, but are not limited to, infiltration basins and trenches, biofiltration strips and swales, Austin filter (earthen and concrete), detention (unlined), bioretention (unlined and lined), Delaware filter, and Open Graded Friction Course. The City's Best Management Practices may include but are not limited to, source control Best Management Practices, structural controls, permanent controls, and Low Impact Development facilities (for example, bioretention facilities, Green/Complete Streets Design Elements, et cetera).

2.2.3 Geology, Soils, Seismicity, and Topography

Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects "outstanding examples of major geological features." Topographic and geologic features are also protected under the California Environmental Quality Act.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Structures are designed using Caltrans Seismic Design Criteria. Caltrans' Seismic Design Criteria provide the minimum seismic requirements for highway bridges designed in California. A bridge's category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please see the Caltrans Division of Engineering Services, Office of Earthquake Engineering's Seismic Design Criteria.

Affected Environment

This section is based on the Structure Preliminary Geotechnical Report (December 18, 2018) that was prepared for the proposed project.

Topography and Geology

The site lies east of the Santa Lucia Mountain Range within the Salinas River Valley, which is part of the Coast Range Geomorphic Province of California. The Central Coast Region of this province is divided into two major blocks; the Salinian Block and the Coastal Block. These blocks are separated by the Rinconada Fault Zone, which lies approximately 3.57 miles west of the site.

Based on the Structure Preliminary Geotechnical Report, the site is on the Salinian Block. The basement rocks underlying the site consist of Cretaceous-age (between 145.5 to 65.5 million years ago) granitic and Jurassic-age (between 199.6 to 145.5 million years ago) metamorphic basement rocks. The basement rock at the site is overlain by Miocene (between 23.0 to 5.3 million years ago) to early Pleistocene-age (between 2.6 million to 12 thousand years ago) sedimentary rocks and surficial deposits.

The surficial deposits on the site are mapped as older alluvium, recent alluvium, and stream channel deposits. The recent alluvium and stream channel deposits were deposited by the northerly trending Huer Huero Creek, which lies along the eastern edge of the project site. These surficial deposits are underlain by sediments of the Paso Robles Formation, which were deposited in the Late Pliocene and early Pleistocene times. The Paso Robles Formation typically consists of light buff, fine-to-medium-grained sand and interbedded gray gypsiferous clay.

The project site lies on a rolling plain that varies in elevation between approximately 700 to 850 feet above mean sea level.

Subsurface Soil Conditions

The proposed project site soils are a mixture of loose-to-hard silt and clay with medium-to-very-dense sand and silty sand. Specifically, the project site is underlain by stiff sandy lean clay, medium-dense, well-graded sand, hard

sandy lean clay, loose-to-medium-dense clayey sand, and silty sand alluvium. Variable gravel content was found throughout the site.

Groundwater Conditions

The preliminary design groundwater table is located approximately 39 to 44 feet below the ground surface.

Geologic Hazards

Geological hazards relevant to the proposed project area include seismic-related ground shaking. The City of Paso Robles is between the San Andreas Fault and the Rinconada Fault. The San Andreas Fault is seismically active, and the Rinconada Fault is a potentially seismically active fault. As such, the project site is in a seismically active area that is subject to earthquake shaking from both local and distant earthquakes. There are no known active faults within the project limits, so the risk of ground surface rupture and related hazards at the project site is expected to be low.

Faulting and Seismicity

The nearest substantial local sources of earthquakes are provided in Table 2.36, Fault Data, along with their fault identification number, distance from the project site, fault type, dip of fault, and their maximum earthquake magnitude. Fault identification numbers are used to identify fault traces on the Caltrans Deterministic Peak Ground Acceleration Map. The dip of fault is the angle between the fault plane and the horizontal plane.

Table 2.36 Fault Data

Fault Name	Caltrans Fault Identification Number	Distance to Site (Miles)	Fault Type	Dip of Fault	Moment Magnitude
Rinconada (San Marcos Section)	209	3.57	Right lateral strike slip	82	7.4
Hosgri	213	26.50	Reverse	80	7.3
Oceanic	223	15.76	Reverse	58	6.9
San Andreas (Parkfield Section)	214	19.89	Right lateral strike slip	90	7.9

Source: Earth Systems Pacific, Structure Preliminary Geotechnical Report, December 18, 2018.

Liquefaction

Soil liquefaction is the loss of soil strength during a significant seismic event. Liquefaction potential is influenced by such factors as soil type, depth to groundwater, degree of seismic shaking, and density of the soil. Liquefaction occurs most commonly in saturated, loose-to-medium-dense, fine-to-medium-

grained sands, and sandy silts. Preliminary liquefaction analysis within the Structure Preliminary Geotechnical Report determined that the project area along and across Huer Huero Creek could be subject to liquefaction hazards due to the soil content. The remainder of the project site has a low potential to encounter liquefaction hazards.

Seismically Induced Settlement

During liquefaction, the energy from the earthquake causes the water pressure within the pores of the soil to increase. The increase in water pressure decreases the friction between the soil grains, allowing the soil grains to move relative to one another. During this state, the soil will behave as a viscous liquid, temporarily losing its ability to support foundations and other improvements. The high-pressure water will flow through the soil along the path of least resistance. As the pressure is released, the soils typically settle in a process called "dynamic settlement." Dynamic settlement can cause damage to structures and other surface and subsurface improvements. Based on the Structure Preliminary Geotechnical Report, since the project site could be subject to liquefaction hazards along Huer Huero Creek, liquefaction-induced (seismic) settlement of onsite soils in this area could occur.

Lateral Spreading

A common type of liquefaction-related ground deformation includes lateral spreading. Lateral spreading is the propensity of a soil mass to move laterally due to the liquefaction of an underlying soil layer. It generally occurs on sloping ground or where there is a nearby descending slope overlying the liquefied zone. Since the project site could be subject to liquefaction along Huer Huero Creek, this area could be subject to lateral spreading.

Landslides

The topography of the project site is generally described as a rolling hill without any steep natural slopes. Therefore, landslide potential is considered low.

Other Geologic Hazards

The nearest major waterbody to the project site is Lake Nacimiento, located approximately 14.2 miles to the northwest. The project area is approximately 20 miles east of the Pacific Ocean and more than 16 miles east of the Whale Rock Reservoir; therefore, tsunamis and seiche are not considered geologic hazards for the project site.

Soil Erosion Potential

As discussed, the topography of the project site generally consists of rolling hills. However, the side slopes of Huer Huero Creek are at a generally mild inclination and are covered with sparse vegetation. Surficial soils on existing slopes within the project limits are mostly sandy soils with gravel and are

susceptible to erosion. The erosion potential of the existing slope faces was observed to be moderate to high.

Soil Expansion Potential

Onsite soils within the proposed project limits are predominately sand, silt, and clay. The expansion potential for onsite soils is considered to be low.

Mineral Resources

According to the California Geological Survey, portions of the project site are on Mineral Resource Zone (MRZ-1) land, where available geological information indicates that little likelihood exists for the presence of significant mineral resources. The remaining areas are not classified. No mineral resources are known to exist either on the site or in the project area. (Sources: California Geological Survey, Updated Mineral Land Classification Map for Concrete-Grade Aggregates in the San Luis Obispo-Santa Barbara Production-Consumption Region, California-North Half (Plate 1-A), ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/sr_215/sr_215_plate1a.pdf, 2011; San Luis Obispo County, Land Use View, https://gis.slocounty.ca.gov/sites/luview.htm, accessed May 1, 2020).

Environmental Consequences

Temporary Impacts

No-Build Alternative

No improvements to the existing State Route 46 East/Union Road intersection would occur under the No-Build Alternative; therefore, it would not result in temporary impacts related to geology, soils, seismicity, or topography.

Build Alternative (Phases 1 and 2)

Earthwork activities during project construction would impact the geological environment (in other words, soil erosion and siltation). Excavations are anticipated to be performed within existing artificial fill and alluvium. Based on the preliminary plans, no major excavations (greater than 3 feet) are proposed, except for local excavations required for project implementation, such as bridge pilings and utilities. Temporary cuts may be required in areas where drainage improvements, including infiltration basins, bioretention, bioswale, a conveyance swale, and pile footings, are proposed. Excavation and construction activities in these areas may result in minor changes to the existing topography. To minimize the potential for soil erosion and siltation, standard practices, such as temporary large sediment barriers, soil binders, and rock slope protection, would be implemented (Caltrans Standard Specifications Sections 13-05 and 21), as itemized in Chapter 1 of this document. Additionally, the project would adhere to the earthwork recommendations provided in the Structure Preliminary Geotechnical Report prepared for the project. The recommendations pertain to earthwork (fill, compressible soils, over excavation/recompaction), soil expansion, erosion,

liquefaction and seismically induced settlement, embankment settlement and stability, cut slopes, and requirements for geotechnical field investigations for the proposed project during the Plans, Specifications, and Estimates phase.

Construction of the Build Alternative could expose construction workers and the traveling public to potential impacts associated with seismic ground shaking. The project would comply with the most current Caltrans procedures and design criteria regarding seismic design to minimize any adverse effects related to seismic ground shaking. Earthwork would be performed in accordance with Caltrans Standard Specifications, Section 19, which requires standardized measures related to compacted fill, over excavation, recompaction, and retaining walls, among other requirements. Moreover, Caltrans Highway Design Manual Topic 113, Geotechnical Design Report, would require that a site-specific, geotechnical field investigation be performed for the proposed project during the Plans, Specifications, and Estimates phase. With adherence to these Caltrans procedures, adverse effects would not occur in this regard.

Permanent Impacts

No-Build Alternative

No improvements to the existing State Route 46 East/Union Road intersection would occur under the No-Build Alternative; therefore, it would not result in permanent impacts related to geology, soils, seismicity, or topography.

Build Alternative (Phases 1 and 2)

Fault-Induced Ground Rupture

As concluded above, the project limits do not include active surface faults, and the potential for fault-induced ground rupture is considered low. The Build Alternative would not result in adverse effects in this regard.

Seismic-Related Ground Shaking

The proposed project site is within a tectonically active area and, therefore, would likely be subject to the effects of strong seismic-related ground shaking. The Build Alternative would adhere to the earthwork recommendations provided in the Structure Preliminary Geotechnical Report and the Caltrans Standard Specifications, Section 19. The recommendations pertain to foundation design, grading, and building material. Based on the Structure Preliminary Geotechnical Report, minimization measure Geology-1 would require that foundations for Huer Huero Creek Bridge overcrossing abutments and center bent would use spread footings and/or driven piles, with footings at a minimum depth of 5 feet. Minimization measure Geology-2 would require that on-ramp and off-ramp bridges are founded on Caltrans standard 70- or 100-ton piles, with pile caps set at a minimum depth of 5 feet or higher, depending on pile cap placement. Minimization measure Geology-3 would require that, before placement of embankment fill, a minimum of 3 feet of the existing subgrade is removed, and the exposed soil surface is scarified,

moisture conditioned, and recompacted. Minimization measure Geology-4 would minimize impacts related to potential soft and unstable subgrade soil conditions by requiring the use of chemical treatment, placement of geotextiles and/or geogrids, and removal and replacement of the soil.

In addition, the Build Alternative would adhere to the requirements for geotechnical field investigations for the proposed project during the Plans, Specifications, and Estimates phase, which also aligns with Caltrans Highway Design Manual Topic 113, Geotechnical Design Report. The geotechnical field investigations would include verification or revision of estimated settlement of foundations and embankment fill, penetration depths and associated capacities of various pile sections under consideration, soil pressures on abutments, soil nail walls and wing walls, estimated capacities of soil nails and other issues deemed pertinent to the Build Alternative. With the implementation of minimization measures Geology-1 through 4 and applicable Caltrans design standards, effects related to seismic-related ground shaking would not be adverse.

Liquefaction

Preliminary liquefaction analysis within the Structure Preliminary Geotechnical Report determined that the project site is subject to liquefaction hazards along Huer Huero Creek. The Build Alternative would adhere to the design standards detailed under Seismic-Related Ground Shaking and the following earthwork recommendations provided in the Structure Preliminary Geotechnical Report.

As noted above, minimization measures Geology-1 through 4 would be required, which include a range of design recommendations related to bridge footings/piles, embankment fill and recompaction, and soil stability.

Additional site-specific soil borings, cone penetration test soundings, and groundwater data would be obtained during the Plans, Specifications, and Estimates phase. With adherence to minimization measures Geology-1 through 4 and applicable Caltrans requisite design standards, effects related to liquefaction would not be adverse.

Seismically Induced Settlement

Since the project site is subject to liquefaction hazards along Huer Huero Creek, the Structure Preliminary Geotechnical Report determined that liquefaction-induced (seismic) settlement of onsite soils could also occur.

As noted above, minimization measures Geology-1 through 4 would be required, which include a range of design recommendations related to bridge footings/piles, embankment fill and recompaction, and soil stability.

The Build Alternative would adhere to the design standards detailed under Permanent Impacts for Seismic-Related Ground Shaking and Permanent

Impacts for Liquefaction listed above, and site-specific soil borings would be performed during the Plans, Specifications, and Estimates phase. With adherence to minimization measures Geology-1 through 4 and recommendations, potential impacts regarding seismically induced settlement would not be adverse.

Lateral Spreading

Since the project site is subject to liquefaction hazards along Huer Huero Creek, the potential for lateral spreading could be a design concern.

As noted above, minimization measures Geology-1 through 4 would be required, which include a range of design recommendations related to bridge footings/piles, embankment fill and recompaction, and soil stability.

The Build Alternative would adhere to the design standards detailed under Permanent Impacts for Seismic-Related Ground Shaking and Permanent Impacts for Liquefaction listed above. Site-specific soil borings and analysis would be performed during the Plans, Specifications, and Estimates phase. With adherence to minimization measures Geology-1 through 4 and recommendations, potential impacts regarding lateral spreading would not be adverse.

Landslides

Due to the rolling terrain of the project area, landslide potential is considered low, and potential impacts regarding landslides would not be adverse.

Soil Erosion Potential

Surficial soils on existing slopes within the project limits are mostly sandy soils with gravel and are susceptible to erosion. The erosion potential of the existing slope faces was observed to be moderate to high. Most of the slopes proposed as part of the Build Alternative would be sloped at a ratio of 4 horizontal to 1 vertical or flatter. Fill embankments would be globally stable for a maximum slope gradient of 2 horizontal to 1 vertical ratio or flatter, and fill slopes with a gradient of 2 horizontal to 1 vertical ratio would be surficially stable. These areas would be maintained with erosion protection and drainage control in accordance with Section 21 of Caltrans Standard Specifications (2018). The Build Alternative would adhere to the requisite design standards detailed under Permanent Impacts for Seismic-Related Ground Shaking and Permanent Impacts for Liquefaction listed above, as well as the earthwork recommendations provided in the Structure Preliminary Geotechnical Report. With adherence to the above-listed standards and recommendations, potential impacts regarding soil erosion would not be adverse.

Soil Expansion Potential

The soil types associated with the project site are primarily sand, silt, and clay, which are not expected to be expansive. The Build Alternative would adhere to the requisite design standards detailed under Permanent Impacts for Seismic-Related Ground Shaking and Permanent Impacts for Liquefaction listed above, as well as the earthwork recommendations provided in the Structure Preliminary Geotechnical Report. With adherence to the above-listed standards and recommendations, potential impacts regarding soil expansion would not be adverse.

Fill Settlement

The area is generally underlain by medium dense to dense and/or stiff older alluvium, which in turn overlies the Paso Robles Formation. Due to its age, the older alluvium is relatively well consolidated, and thus more compact and less porous. Similarly, due to its age, the Paso Robles Formation is well consolidated. An exception is the deep fill that is present on the north side of the highway, west of Huer Huero Creek. This fill is relatively recent and not properly compacted engineered fill. The potential for settlement is low under loads of light foundations or relatively shallow fills. If heavily loaded structures or high embankments are constructed over existing undocumented fill or alluvial soils, settlement is anticipated.

As noted above, minimization measures Geology-1 through 4 would be required, which include a range of design recommendations related to bridge footings/piles, embankment fill and recompaction, and soil stability. Upon adherence to minimization measures Geology-1 through 4, and upon the performance of additional studies during the Plans, Specifications, and Estimates phase, impacts would not be adverse.

With adherence to the above-listed standards, proposed minimization measures, and inclusion of any additional measures identified during the Plans, Specifications, and Estimates phase, potential impacts regarding embankment settlement would not be adverse.

Stability of Embankment Slopes

As noted above, most of the slopes proposed as part of the Build Alternative would be sloped at a ratio of 4 horizontal to 1 vertical or flatter. Fill embankments would be globally stable for a maximum slope gradient of 2 horizontal to 1 vertical ratio or flatter, and fill slopes with a gradient of 2 horizontal to 1 vertical ratio would be surficially stable. Minimization measure Geology-3 would be implemented, requiring that, prior to placement of embankment fill, a minimum of 3 feet of the existing subgrade is removed, and the exposed soil surface is scarified, moisture conditioned, and recompacted. Moreover, additional studies would be conducted during the Plans, Specifications, and Estimates phase to verify design requirements for embankment slopes. With the implementation of minimization measure

Geology-3, potential impacts regarding the stability of embankment slopes would not be adverse.

No substantive landforms or landmarks pertaining to geology or topography are within the project limits. However, minimization measure Visual/Aesthetics-3 would be required to minimize conventional cut landform appearance and provide rounded slope transitions to produce a more natural appearance. Impacts related to landforms and landmarks would not be adverse.

Avoidance, Minimization, and/or Mitigation Measures

Refer to Section 2.1.11, Visual/Aesthetics, for minimization measure Visual/Aesthetics-3, which would require the use of contour grading and slope rounding techniques to minimize conventional cut landform appearance as per Highway Design Manual Section 304.4. The following minimization measures would be implemented to reduce potential geologic, soil, seismic, and topographic-related hazards.

- **Geology-1:** The Huer Huero Creek Bridge would be designed with overcrossing abutments and a center bent founded on spread footings and/or driven piles. Bridge footings would be a minimum of 5 feet deep. These parameters would be subject to verification during the Plans, Specifications, and Estimates phase.
- **Geology-2:** Due to liquefaction potential, on- and off-ramp bridges would be founded on Caltrans standard 70- or 100-ton driven piles (steel pipe piles, steel H-piles, or prestressed concrete piles). Pile caps constructed outside of the 100-year flood zone would be set at minimum depths of 5 feet below the lowest grade within 5 feet of the cap. Within the 100-year flood zone, pile caps would be set at a minimum of 5 feet below the estimated scour depth. These parameters would be subject to verification during the Plans, Specifications, and Estimates phase.
- **Geology-3:** For fill depths up to 10 feet, prior to placement of embankment fill, 3 feet of the existing subgrade would be removed, and the exposed soil surface scarified, moisture conditioned, and recompacted. For fill depths greater than 10 feet and up to 20 feet, the removal depth would be increased to 5 feet. For fill depths over 20 feet, the removal depth would be increased to 6 feet. These parameters would be subject to verification during the Plans, Specifications, and Estimates phase.
- **Geology-4:** To minimize potential soft and unstable subgrade soil conditions, chemical treatment, placement of geotextiles and/or geogrids, and removal and replacement of the soil would be considered during the Plans, Specifications, and Estimates phase.

2.2.4 Paleontology

Regulatory Setting

Paleontology is a natural science focused on the study of ancient animal and plant life as it is preserved in the geologic record as fossils.

A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized projects.

- 23 U.S. Code 1.9(a) requires that the use of Federal-aid funds must conform with all federal and state laws.
- 23 U.S. Code 305 authorizes the appropriation and use of federal highway funds for paleontological salvage as necessary by the highway department of any state, in compliance with 16 U.S. Code 431-433 above and state law.

Under California law, paleontological resources are protected by the California Environmental Quality Act.

Affected Environment

This section is based on the Combined Paleontological Identification Report and Paleontological Evaluation Report (February 2022) prepared for the project.

Stratigraphy

The project surface is mapped as Holocene alluvial sand and gravel deposits less than 11,700 years old, late Pleistocene older alluvium between 11,700 and 126,000 years old, and late Pliocene to Pleistocene Paso Robles Formation between 11,700 and 3 million years old.

Paleontological Setting

Sediments of the project date to the late Pliocene, Pleistocene, and Holocene Epochs. During the Miocene Epoch, between 23.0 to 5.3 million years ago, Central California was covered by deep ocean waters. Fishes, seals, sea lions, walruses, dolphins, whales, and sea birds have been found in these sediments, along with numerous marine invertebrate species.

During the Pliocene Epoch, between 5.3 to 2.6 million years ago, the level of the ocean fell, and this area transitioned to a shallow marine environment. Many present-day genera of marine animals appeared during this time. Occasional terrestrial fossils were washed in via rivers and streams flowing into the ocean.

During the Pleistocene Epoch, between 2.6 million to 12 thousand years ago, this area transitioned from shallow marine to terrestrial as the ocean receded further. During glacial intervals, the developing terrestrial landscape had a

climate that was cooler and damper than the present. Megafauna present in the region included mammoth, mastodon, horse, camel, antelope, peccary, wolf, and sabercat. While the Ice Age megafauna became extinct at the end of the Pleistocene, most of the smaller species of animal survived into the present.

Paleontological Records

Records search resources included the Natural History Museum of Los Angeles County's Department of Invertebrate Paleontology database, the Paleobiological Database, the University of California Museum of Paleontology Database, and earlier record searches and print sources.

The record search indicated that no previous fossil localities have been recorded within the project area. However, fossils are known from the late Pleistocene alluvium and the late Pliocene to Pleistocene Paso Robles Formation within San Luis Obispo County. Aside from the Paso Robles Formation, no geological units that occur onsite have the potential to contain marine deposits. All available records of in situ marine fossils from the Paso Robles Formation occur between Templeton and Santa Margarita. Marine fossils found in the Paso Robles area are well-worn and have been transported from their source rocks by rivers. Therefore, any marine fossils encountered within the project area have lost their stratigraphic context.

Survey Results

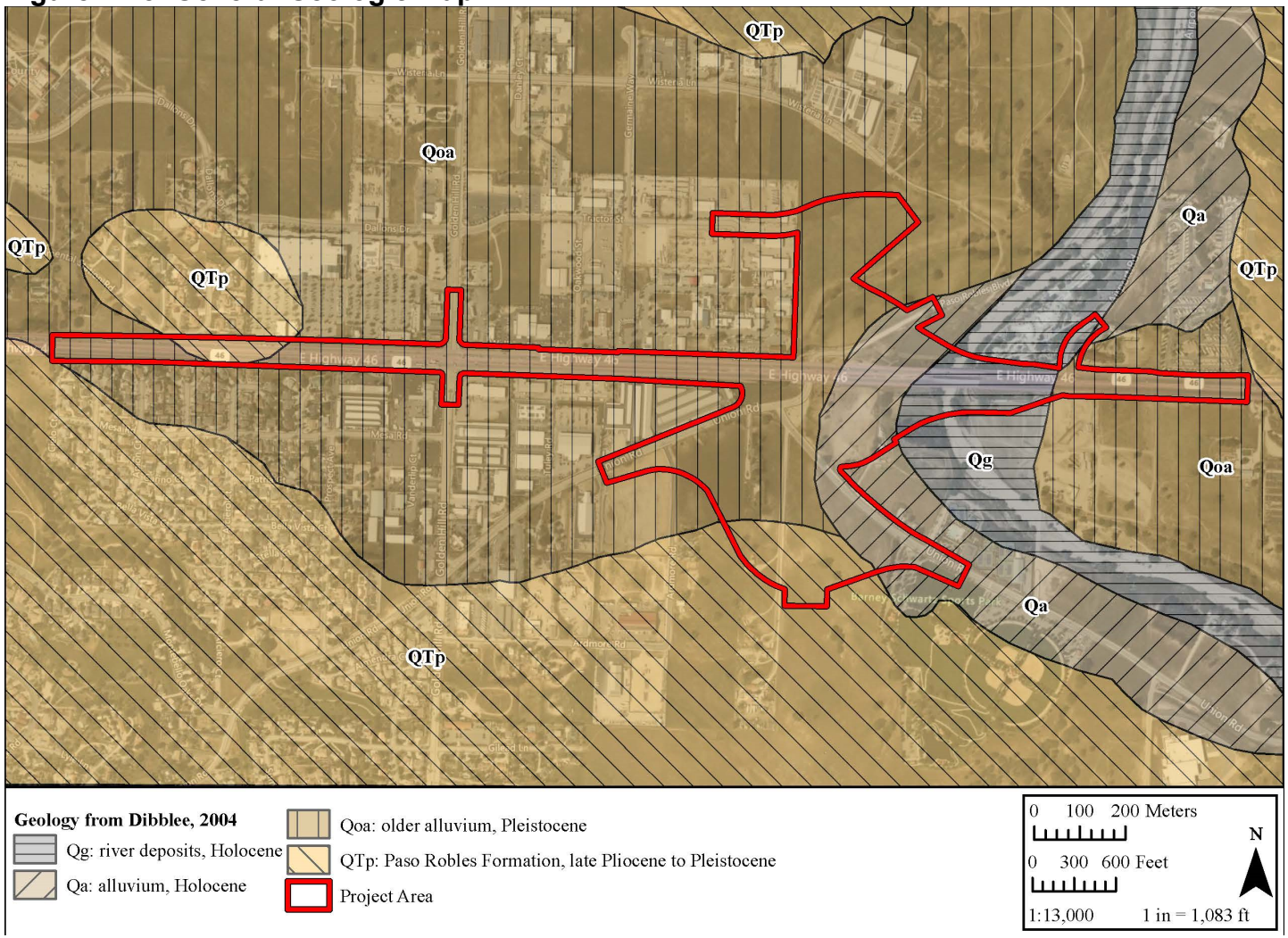
No paleontological resources were encountered on the ground surface of the project area during the pedestrian reconnaissance field survey conducted as part of the Paleontological Identification Report and Paleontological Evaluation Report on October 11, 2018. Much of the project site was found to be disturbed. West of Ardmore Road, the project site is hardscaped, and most of the eastern mapped areas of Holocene alluvium, late Pleistocene alluvium, and Paso Robles Formation had been disced. Discing mixes the ground sediment. Areas not disced were overgrown with dried grasses and other small plants.

Paleontological Sensitivity

Paleontological resources are considered significant if they are identifiable vertebrate fossils or uncommon invertebrate, plant, and trace fossils that provide new data on classification, preservation, distribution, evolution, or other scientifically important information. Knowledge of the geological units gleaned from desktop records searches, published and unpublished literature and map reviews, and field surveys are the basis for determining the paleontological sensitivity of projects. Caltrans uses a tripartite scale to characterize paleontological sensitivity, defining sensitivity as "High," "Low," and "No Sensitivity." Refer to Figure 2-28, General Geologic Map.

Geological units with high sensitivity are those that contain the potential for containing: 1) abundant vertebrate fossils; 2) a few significant fossils (large or small vertebrate, invertebrate, or plant fossils) that may provide new and significant taxonomic, phylogenetic, ecologic, and/or stratigraphic data; 3) areas that may contain datable organic remains older than Recent, including Neotoma (subspecies) and middens; or 4) areas that may contain unique and new vertebrate deposits, traces, and/or trackways. Areas with a high potential for containing significant paleontological resources require monitoring and/or mitigation. The low sensitivity category includes sedimentary rock units that 1) are potentially fossiliferous but have not yielded significant fossils in the past; 2) have not yielded fossils but possess a potential for containing fossil remains; or 3) contain common and/or widespread invertebrate fossils if the taxonomy, phylogeny, and ecology of the species contained in the rock are well understood. Rock units of intrusive igneous origin, most extrusive igneous rocks, and moderately to highly metamorphosed rocks are classified as having no potential for containing significant paleontological resources. For projects encountering only these types of rock units, paleontological resources can generally be eliminated as a concern and no further action is taken.

Figure 2-28 General Geologic Map



Holocene deposits less than 5 feet below the current ground surface are given a low sensitivity, whereas deeper sediments are assumed to be at least late Pleistocene in age and are given a high sensitivity. Due to the large amount of discing over the project area, both the late Pleistocene older alluvium and the Paso Robles Formation are given a low sensitivity for sediments less than 3 feet deep, while deeper sediments are given a high sensitivity; refer to Table 2.37, Paleontological Sensitivity for the Proposed Project.

Table 2.37 Paleontological Sensitivity for the Proposed Project

Rock Units	Caltrans Sensitivity: High	Caltrans Sensitivity: Low	Caltrans Sensitivity: No
Alluvium, Holocene	More than 5 feet deep	Less than 5 feet deep	Not Applicable
Gravel, Holocene	More than 5 feet deep	Less than 5 feet deep	Not Applicable
Older Alluvium, Late Pleistocene	More than 3 feet deep	Less than 3 feet deep	Not Applicable
Paso Robles Formation, Late Pliocene to Pleistocene	More than 3 feet deep	Less than 3 feet deep	Not Applicable

Source: Cogstone Resource Management, Combined Paleontological Identification Report and Paleontological Evaluation Report, February 2022.

Environmental Consequences

No-Build Alternative

- Project construction would not take place under the No-Build Alternative, and therefore, no impact on paleontological resources would occur.

Build Alternative (Phases 1 and 2)

- Based on the Paleontological Identification Report and Paleontological Evaluation Report, no fossils are known from the project area or within a mile of its borders.
- During the construction phases of the Build Alternative, fossils may be recovered where vertical impacts exceed 3 feet in Pleistocene deposits and 5 feet in Holocene deposits. However, if augering occurs, the augur may bring fossil fragments to the surface; however, the specimens would lack contexts, such as depth/elevation, formation identification, and other data critical to scientific significance. Therefore, with the Build Alternative, construction activities at vertical excavation areas greater than 3 feet in Pleistocene deposits and/or greater than 5 feet in Holocene deposits could result in adverse impacts to paleontological resources.
- Since the Build Alternative's ground-disturbing activities could result in adverse impacts to paleontological resources, worker environmental awareness training and onsite construction monitoring would be required, as described in avoidance and minimization measure Paleontology-1 and mitigation measure Paleontology-2 below. If paleontological resources are

discovered during ground-disturbing activities, fossil preparation, curation, and reporting would occur in accordance with mitigation measures Paleontology-3a and Paleontology-3b. With the implementation of avoidance and minimization measure Paleontology-1 and mitigation measures Paleontology-2, Paleontology-3a, and Paleontology-3b, effects related to paleontological resources would not be adverse.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measure would be implemented to protect paleontological resources.

- **Paleontology-1:** Before the start of construction, all field personnel would be briefed regarding the types of fossils that could be found in the project area and the procedures to follow should paleontological resources be encountered. The project paleontologist or his/her representative would conduct this training at the pre-grade kickoff meeting or morning tailboard meeting. Specifically, the training would describe the fossil resources that may be encountered in the project area, outline steps to follow if a fossil discovery is made, and provide contact information for the project paleontologist and onsite monitor(s). The project paleontologist would develop the training, which may be conducted concurrently with other environmental training (for example, cultural and natural resources awareness training, safety training, et cetera). The following mitigation measures would be implemented to protect paleontological resources.
- **Paleontology-2:** If fossil resources are discovered during construction activities, a Paleontological Mitigation Plan that follows Caltrans guidelines and the recommendations of the Society of Vertebrate Paleontology would be implemented. The Paleontological Mitigation Plan would be prepared by a qualified professional paleontologist before the start of ground-disturbing activities and would include the following elements:
    - If a paleontological resource is discovered, the paleontological monitor and the resident engineer would temporarily stop all work and divert construction equipment within 50 feet of the find.
    - The paleontological find would be assessed for scientific significance and collected.
    - Monitoring would be conducted for grading and excavation activities at depths greater than or equal to 3 feet below the ground surface that has the potential to disturb Pleistocene deposits or 5 feet below the ground surface that have the potential to disturb Holocene deposits.
    - Monitoring would entail the visual inspection of excavated or graded areas and trench sidewalls.
    - In areas of low sensitivity, monitoring efforts can be reduced or eliminated at the discretion of the project paleontologist.

- **Paleontology-3a:** In the event of fossil discovery during construction, the fossils would be collected as specified in the Paleontological Mitigation Plan. After the completion of the collection and upon completion of fieldwork, all significant fossils collected would be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation would carefully remove excess matrices from fossil materials and stabilize and repair specimens as necessary. Following laboratory work, all fossil specimens would be identified to the lowest taxonomic level and cataloged and analyzed for curation and storage. The project paleontologist would consult the paleontology coordinator regarding a suitable repository should scientifically significant fossils be recovered. Once the repository is decided on, they would have the first right of refusal for all project fossils. Project funds to pay for costs of transporting, curating, and housing the collection would be estimated to ensure that funds are available.
- **Paleontology-3b:** After laboratory work and museum curation, a final Paleontological Mitigation Report would be prepared to describe the results of the paleontological mitigation monitoring efforts associated with the project. The report would include a summary of the field and laboratory methods, an overview of the project area geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any), and their scientific significance and recommendations. If the monitoring efforts produce fossils, then a copy of the report would also be submitted to the repository.

2.2.5 Hazardous Waste and Materials

Regulatory Setting

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage, and disposal of hazardous materials, substances, and waste, as well as the investigation and mitigation of issues pertaining to waste releases, air and water quality, human health, and land use.

The primary federal laws that primarily regulate hazardous wastes/materials are the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and the Resource Conservation and Recovery Act of 1976. The purpose of the Comprehensive Environmental Response, Compensation, and Liability Act, often referred to as “Superfund,” is to identify and clean up abandoned contaminated sites so that public health and welfare are not compromised. The Resource Conservation and Recovery Act provides for “cradle to grave” regulation of hazardous waste generated by operating entities. Other federal laws include:

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act

- Safe Drinking Water Act
- Occupational Safety and Health Act
- Atomic Energy Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide, and Rodenticide Act

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control Standards, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

California regulates hazardous materials, waste, and substances under the authority of the California Health and Safety Code and is authorized by the federal government to implement the Resource Conservation and Recovery Act in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning issues pertaining to hazardous waste. The Porter-Cologne Act restricts the disposal of wastes and requires cleanup for wastes that are below hazardous waste concentrations but capable of affecting groundwater and surface water quality. California regulations that address waste management issues and the prevention and cleanup of contamination include Title 22, Division 4.5, Environmental Health Standards for the Management of Hazardous Waste; Title 23, Waters; and Title 27, Environmental Protection.

Worker and public health and safety are key issues when hazardous materials that may affect human health and the environment are encountered. Proper management and disposal are vital if hazardous materials are found, disturbed, or generated during project construction.

Affected Environment

This section is based on the Phase 1 Initial Site Assessment, State Route 46 East/Union Road Intersection Improvements, State Route 46 East, Post Mile 31.8, Paso Robles, San Luis Obispo County, California (January 2022).

Field Survey and Record Search Methodology

Records Review

Environmental data resources and an incorporated records search of federal and state environmental databases for sites within the project site and within an approximately 1-mile radius of the project site boundaries were ordered, and the results were incorporated into the Phase 1 Initial Site Assessment.

Based on the regulatory listings provided by Environmental Data Resources, 21 hazardous substance sites within the American Society for Testing and Materials (ASTM)-specified search distances are listed in the database report. Twenty of the 21 sites within 500 feet of the project boundaries are listed

based on a facility storing or handling hazardous materials, generating regulated quantities of hazardous waste, or the presence of an aboveground or underground fuel storage tank. No releases have been reported from any of these sites, and none are next to the project. The one remaining site has experienced a release of diesel fuel from an underground storage tank. The release affected soil only and was excavated upon discovery; the case has a regulatory status of "case closed." The database report listed two sites classified as "orphan" sites due to limited address information or the inability to accurately identify the site address. The Phase 1 Initial Site Assessment determined that one of the orphan sites is located at the northwest corner of Union Road and State Route 46 and pertains to a stormwater monitoring permit associated with grading for a large commercial center; the permit was issued in 2008 and closed in 2010. The Phase I Initial Site Assessment determined that the other orphan site is located more than one mile from the project. Based on the distance, anticipated groundwater flow direction, and/or the status of the identified site(s), no further file review was required as part of the Phase 1 Initial Site Assessment.

Historical Research

The standard sources identified by the American Society for Testing and Materials E 1527-13 include aerial photographs, fire insurance maps, property tax files, recorded land title records (a chain of title), historical U.S. Geological Survey topographic maps, local street directories, building department records, zoning/land use records, prior assessments, and other historical sources (in other words, any source or sources other than those listed that are credible to a reasonable person and that identify past uses of the property). The focus is on usage rather than ownership, which is why a chain of title is not sufficient by itself. As part of the Phase 1 Initial Site Assessment, historical decade aerial photographs, historical topographic maps, property tax files, zoning/land use records, and California Geologic Energy Management Division (CalGEM) records were reviewed. Sanborn Maps were requested but not available for the project area.

The Phase 1 Initial Site Assessment acknowledged that, due to the availability of data sources other than chain of title information and the absence of previous ownership information, the chain of title was not reviewed. The Phase 1 Initial Site Assessment determined that this limitation is not a significant data gap.

The Phase 1 Initial Site Assessment did not note any other conditions that limited the historical use review during the Phase 1 Initial Site Assessment.

Site Reconnaissance

In December 2021, site reconnaissance was conducted and consisted of a visual observation of readily accessible areas of the project site and

immediately adjoining properties. The project site was viewed from all public thoroughfares.

The Phase 1 Initial Site Assessment did not include a screening evaluation for a Vapor Encroachment Condition since no habitable structures or enclosed spaces are proposed as part of the project. Phase 1 Initial Site Assessment determined that this limitation is not considered a significant data gap in the analysis.

Interviews

Due to the nature of the project (transportation improvements), current and past property owners/operators/occupants associated with right-of-way acquisition properties were not interviewed. Based on a review of available historical topographic maps, historical aerial photographs, and available public records, the project site consisted of agricultural, residential, commercial, and transportation land uses. Based on the historical documentation reviewed, the Phase 1 Initial Site Assessment determined that these interviews would not increase the knowledge of the Environmental Professional such that the conclusions of this Phase 1 Initial Site Assessment would change. Thus, the Phase 1 Initial Site Assessment determined that this deviation is not a significant data gap in the analysis. However, the San Luis Obispo Environmental Health Services Department was contacted regarding hazardous materials files for the developed private properties to be partially or completely acquired; this coordination resulted in the determination that there are no files for hazardous materials or underground storage tanks at these properties.

Results of Phase 1 Initial Site Assessment

Outside the rights-of-way for the existing roads, the project site consists of rural residential/commercial properties and vacant land. On the south side of State Route 46 East (State Route 46), three rural residences are present:

- A vacant/abandoned residence at the southeast corner of Union Road and State Route 46 (Assessor’s Parcel Number 025-371-016).
- An occupied residence and outbuildings north of Union Road and west of Huer Huero Creek (Assessor’s Parcel Number 025-371-017).
- A residence, outbuildings, and several partly demolished outbuildings on the south side of Union Road, at the west end of the project site (Assessor’s Parcel Number 025-362-004).

The project site east of the Huer Huero Creek channel and south of the highway is vacant and unimproved and is covered with a low growth of grasses and shrubs, with several large oak trees. Some riparian growth is present along the creek banks (Assessor’s Parcel Numbers 025-362-025 and 025-362-031).

On the north side of State Route 46, the project site west of Huer Huero Creek consists of the right-of-way for Paso Robles Boulevard and two river terraces alongside the creek bed. The upper terrace (Assessor's Parcel Number 025-435-026) is in an essentially natural condition and is used seasonally for pasture and dry-farmed grain cultivation. The lower terrace (Assessor's Parcel Number 025-433-001) contains a fill pad with as much as 20 feet of nonengineered, human-made fill. According to anecdotal information from local contractors, the property owner historically allowed the placement of fill soil on the site with limited oversight as to its origin or composition. The northern project site east of Huer Huero Creek consists of a narrow strip of land alongside the fill for the westbound State Route 46 bridge abutment; this parcel (Assessor's Parcel Number 025-433-012) is occupied by a private recreational water park.

Underground utilities in the project area include a high-pressure natural gas line and communications cables along the south side of State Route 46. Water lines are also present within and alongside the Union Road right-of-way.

No visual evidence of the improper use, storage, or disposal of hazardous materials/wastes was noted within the project area during the site reconnaissance. Placards noting the presence of a buried natural gas pipeline were noted along the south side of the highway for the entire length of the project.

Lead-Based Paints and Asbestos-Containing Materials

Until 1978, when the U.S. Consumer Product Safety Commission phased out the sale and distribution of residential paint containing lead, many homes were treated with paint containing some amount of lead. It is estimated that over 80 percent of all housing built before 1978 contains some lead-based paint. The mere presence of lead in the paint may not constitute a material to be considered hazardous. In fact, if in good condition (no flaking or peeling), most intact lead-based paint is not considered to be a hazardous material. In poor conditions, lead-based paint can create a potential health hazard for building occupants, especially children.

Asbestos is a strong, incombustible, and corrosion-resistant material, which was used in many commercial products before the 1940s and up until the early 1970s. If inhaled, asbestos fibers can result in serious health problems. Asbestos-containing materials are building materials containing more than 1 percent asbestos (some state and regional regulators impose a one-tenth of one percent threshold).

The project would require the acquisition of all or parts of several privately owned parcels. Three of these parcels (Assessor's Parcel Numbers 025-371-016, 025-362-016, 025-371-017) contain existing structures that may contain lead-based paint or asbestos-containing building materials based on their

apparent age of construction. The presence of lead-based paint or asbestos-containing building materials would require special demolition and disposal procedures.

Traffic Striping Materials

Lead-based paints were commonly used in traffic striping materials before the discontinued use of lead chromate pigment in traffic striping/marking materials and hot-melt thermoplastic stripe materials (discontinued in 1996 and 2004, respectively). According to the Phase 1 Initial Site Assessment, traffic striping was seen within the boundaries of the project site during the site visits. Thus, the Phase 1 Initial Site Assessment determined that the potential for lead-based paints to be present onsite as a result of traffic striping is likely.

Aerially Deposited Lead

Aerially deposited lead refers to lead deposited on highway shoulders from past leaded fuel vehicle emissions. Although lead was banned as a fuel additive in California beginning in 1992, aerially deposited lead may still be present in soils next to highways in use before that time.

Union Road was formerly a primary highway during a period when leaded vehicle fuel was in use; in addition, State Route 46 has been used as a major highway for more than 50 years. As a result, surface soil along road shoulders in the project alignment may contain aerially deposited lead derived from vehicle exhaust emissions.

Undocumented Fill

Based on the Phase 1 Initial Site Assessment, one of the parcels to be acquired on the north side of State Route 46 (Assessor's Parcel Number 025-433-001) contains a pad built of undocumented, nonengineered fill that was reportedly placed with limited oversight. The presence of the undocumented fill indicates a potential for the presence of soil contamination.

Cortese Listing

Based on the Phase 1 Initial Site Assessment, the project site, including all properties proposed for right-of-way acquisition, is not listed pursuant to Section 65962.5 of the California Government Code (also referred to as the Cortese list).

Hydrocarbons in Soil

Based on the Phase 1 Initial Site Assessment, one parcel (Assessor's Parcel Number 025-423-010) is currently used as a construction equipment yard and contains an aboveground fuel storage tank in the area. The presence of the aboveground fuel storage tank indicates potential contamination for soils onsite and presents a Recognized Environmental Condition for the project.

Treated Wood Waste

Treated wood waste comes from old wood that has been treated with chemical preservatives. These chemicals help protect the wood from insect attack and fungal decay during use. Fence posts, sill plates, landscape timbers, pilings, guardrails, and decking, to name a few, are all examples of chemically treated wood. Treated wood waste contains hazardous chemicals that pose a risk to human health and the environment. Arsenic, chromium, copper, creosote, and pentachlorophenol are among the chemicals used to preserve wood and are known to be toxic or carcinogenic. Harmful exposure to these chemicals may result from touching, inhaling, or ingesting treated wood waste particulate (e.g., sawdust and smoke).

Treated wood may be present in utility poles, signposts, and guardrails onsite.

Environmental Consequences

Temporary Impacts

No-Build Alternative

No improvements to the existing State Route 46 East/Union Road intersection would occur under the No-Build Alternative; therefore, it would not result in temporary impacts related to hazardous waste and materials.

Build Alternative (Phases 1 and 2)

Lead-Based Paints and Asbestos-Containing Materials

As stated above, the Build Alternative would require the demolition of the three existing structures within the southern portion of the project site. These activities could disturb potential lead-based paints if present in building materials. Additionally, weathering of these materials could contaminate surface soils around the structures. A certified specialist would be required to conduct testing for lead-based paints before structures are demolished or modified (minimization measure Hazards-1). If present, the certified specialist would be required to monitor the disposal of the lead-based paints as they are uncovered. With the implementation of minimization measure Hazards-1, effects related to lead-based paints in building materials would not be adverse. Potential impacts regarding lead-based paints associated with traffic striping materials are described below.

Implementing the Build Alternative would demolish three existing structures within the southern portion of the project site (Assessor's Parcel Numbers 025-362-016, 025-371-016, 025-371-017) south of State Route 46. Demolition of these structures could disturb potential asbestos-containing building materials. Demolition activities would be required to comply with existing federal, state, and local laws and regulations involving the disturbance of asbestos-containing building materials. A certified specialist would be required to conduct testing for asbestos-containing building materials before structures are demolished or modified (minimization

measure Hazards-1). If present, the certified specialist would be required to monitor the disposal of the asbestos-containing building materials as they are uncovered. With the implementation of minimization measure Hazards-1, effects related to asbestos-containing materials in structures would not be adverse.

Adherence to Caltrans Standard Specifications Section 14-11.02, Discovery of Unanticipated Asbestos and Hazardous Substances, would ensure that if unknown wastes or suspect materials are discovered during site disturbance activities that may involve hazardous waste/materials, the contractor would immediately stop work in the vicinity of the suspected contaminant and notify the project engineer of the implementing agency.

Upon adherence to minimization measure Hazards-1 and Caltrans Standard Specifications Section 14-11.02, adverse effects related to lead-based paints and asbestos-containing building materials would not occur.

Traffic Striping Materials

Disturbance of traffic striping materials would occur with the implementation of the Build Alternative. Removing traffic striping materials that contain lead-based paint would require special removal and disposal measures during construction. Adherence to Caltrans Standard Special Provisions Section 14-11.12, Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue, Section 36-4, Residue Containing Lead from Paint and Thermoplastic, and Section 84-9.03B, Remove Traffic Stripes and Pavement Markings Containing Lead, would ensure proper removal, handling, and disposal of the generated traffic striping waste at a permitted disposal facility. The Standard Special Provisions implemented would depend on whether or not the stripe is hazardous paint and would depend on the method of stripe removal (by itself or as part of asphalt grinding, et cetera).

Upon adherence to Caltrans Standard Special Provisions Sections 14-11.12, 36-4, and 84-9.03B, adverse effects related to lead-based paints in traffic striping materials would not occur.

Aerially Deposited Lead

Depending on the lead concentrations present, soil disturbed or excavated for the project would require specialized handling or disposal measures. Soil determined to contain lead concentrations exceeding stipulated thresholds must be managed under the July 1, 2016, Aerially Deposited Lead Agreement between Caltrans and the California Department of Toxic Substances Control. This Aerially Deposited Lead Agreement allows such soils to be safely reused within the project limits as long as all requirements of the Aerially Deposited Lead Agreement are met.

The Phase 1 Initial Site Assessment determined that aerially deposited lead has not resulted in a Recognized Environmental Condition on the project site.

However, lead contamination may exist within soils along onsite roadways due to aerially deposited lead; as such, aerially deposited lead testing must be conducted in accordance with current Caltrans guidance documents due to the excavation that would occur at the project site. Upon adherence to Caltrans guidance regarding aerially deposited lead testing, adverse effects related to aerially deposited lead would not occur.

Undocumented Fill

Construction of the Build Alternative would involve grading and earthwork that could result in the disturbance of unknown wastes or suspect materials that may involve hazardous waste/materials. Adherence to Caltrans Standard Specifications Section 14-11.02, Discovery of Unanticipated Asbestos and Hazardous Substances, would ensure that if unknown wastes or suspect materials are discovered during site disturbance activities that may involve hazardous waste/materials, the contractor would immediately stop work in the vicinity of the suspected contaminant and notify the project engineer of the implementing agency. Title 29, Part 1910.120, Hazardous Waste Operations and Emergency Response, of the Code of Federal Regulations, requires that no one enter the designated exclusion zones until a complete and effective "hazardous waste worker protection program" is established or until the consultant has determined no exposure danger exists. With adherence to these standardized measures, impacts related to unknown hazardous waste and suspect materials would not be adverse.

Sampling and laboratory analysis of the undocumented fill soils on Assessor's Parcel Number 025-433-001 would be conducted to determine whether soil contamination is present (minimization measure Hazards-2). Hazardous waste and materials sampling would require field preparation and the collection of soil samples from borings, laboratory analyses for total petroleum hydrocarbon, metals, volatile organic compounds, and waste disposal. The testing would occur over an approximately three-month period and cost about $100,000. Because the site poses a low risk for contamination and right-of-way acquisition is still being refined, hazardous waste and materials sampling would be conducted at the beginning of the Plans, Specifications, and Estimates phase of the project. With the implementation of minimization measure Hazards-2 and Caltrans Standard Specifications Section 14-11.02, effects related to hazardous waste in undocumented fill would not be adverse.

Hydrocarbons in Soil

The Build Alternative would include an eastward extension for Tractor Street that would require acquiring a portion of one parcel (Assessor's Parcel Number 025-423-010). As discussed above, one property associated with Assessor's Parcel Number 025-423-010 was determined as a Recognized Environmental Condition due to the potential presence of hydrocarbons in the soil. Project construction would involve grading and earthwork that could disturb potentially contaminated soils. Sampling and laboratory analysis of the

undocumented fill soils on Assessor's Parcel Number 025-423-010 would be conducted to determine whether soil contamination is present (minimization measure Hazards-2). Additionally, adherence to Caltrans Standard Specifications Section 14-11.02, Discovery of Unanticipated Asbestos and Hazardous Substances, would ensure that if unknown wastes or suspect materials are discovered during site disturbance activities that may involve hazardous waste/materials, the contractor would immediately stop work in the vicinity of the suspected contaminant and notify the project engineer of the implementing agency. Hazardous waste and materials sampling would require field preparation, the collection of soil samples from borings, laboratory analyses for total petroleum hydrocarbon, metals, volatile organic compounds, and waste disposal. The testing would occur over an approximately three-month period and cost about $100,000. Because the site poses a low risk for contamination and right-of-way acquisition is still being refined, hazardous waste and materials sampling would be conducted at the beginning of the Plans, Specifications, and Estimates phase of the project. With the implementation of minimization measure Hazards-2 and Caltrans Standard Specifications Section 14-11.02, effects related to hydrocarbons in soil would not be adverse.

Treated Wood Waste

Treated wood may be present in utility poles, signposts, and guardrails onsite. Disposal of this material during construction presents an environmental concern. The disposal of treated wood waste would be required to be performed in accordance with Caltrans Standard Specifications Section 14-11.14. With adherence to Caltrans Standard Specifications Section 14-11.14, impacts related to treated wood waste would not be adverse.

Permanent Impacts

No-Build Alternative

The No-Build Alternative would not change the existing physical environment; thus, there would be no permanent impacts related to hazardous waste under this alternative. Routine maintenance activities would continue to occur under this alternative, including compliance with applicable regulations regarding the use, storage, handling, transport, and disposal of potentially hazardous materials.

Build Alternative (Phases 1 and 2)

Routine maintenance activities during the operation of the Build Alternative would be required to follow applicable regulations regarding the use, storage, handling, transport, and disposal of potentially hazardous materials. Therefore, the operation of the Build Alternative would not result in adverse impacts related to hazardous waste or materials.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures would be implemented to protect human health and the environment as they relate to the management and disposal of hazardous waste and materials. The estimated times and costs of these avoidance and minimization measures would be approximately three months and $100,000.

- **Hazards-1:** Asbestos-containing materials and lead-based paint testing would be conducted at Assessor's Parcel Numbers 025-362-016, 025-371-016, and 025-371-017 before demolition/modification of structures by a certified specialist. If present, the certified specialist would monitor the disposal of the asbestos-containing building materials/lead-based paints as they are uncovered.
- **Hazards-2:** A Phase 2/Site Characterization Specialist would conduct soil sampling during the Plans, Specifications, and Estimates phase of the project on Assessor's Parcel Number 025-433-001 to determine whether soil contamination is present due to the undocumented fill material that occurs on the parcel. The Phase 2/Site Characterization Specialist would also conduct soil sampling during the Plans, Specifications, and Estimates phase of the project on Assessor's Parcel Number 025-423-010 to determine whether soil contamination is present due to hydrocarbon contamination. Sampling results would indicate soil management practices that may need to be used, including the reuse of soils onsite, disposal of soils offsite, and worker safety precautions that may be necessary during construction.

2.2.6 Air Quality

Regulatory Setting

The Federal Clean Air Act, as amended, is the primary federal law that governs air quality, while the California Clean Air Act is its companion state law. These laws, and related regulations by the U.S. Environmental Protection Agency and the California Air Resources Board, set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards. The National Ambient Air Quality Standards and state ambient air quality standards have been established for six criteria pollutants that have been linked to potential health concerns: carbon monoxide, nitrogen dioxide, ozone, particulate matter—which are broken down for regulatory purposes into particles of 10 micrometers or smaller and particles of 2.5 micrometers and smaller—lead, and sulfur dioxide. In addition, state standards exist for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. The National Ambient Air Quality Standards and state standards are set at levels that protect public health with a margin of safety and are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants

(known as air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under the National Environmental Policy Act. In addition to this environmental analysis, a parallel "Conformity" requirement under the Federal Clean Air Act also applies.

Conformity

The conformity requirement is based on Federal Clean Air Act Section 176(c), which prohibits the U.S. Department of Transportation and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to the State Implementation Plan for attaining the National Ambient Air Quality Standards. "Transportation Conformity" applies to highway and transit projects and takes place on two levels: the regional (or planning and programming) level and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and "maintenance" (former nonattainment) areas for the National Ambient Air Quality Standards and only for the specific National Ambient Air Quality Standards that are or were violated. The U.S. Environmental Protection Agency regulations at 40 Code of Federal Regulations 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for National Ambient Air Quality Standards and do not apply at all for state standards, regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the National Ambient Air Quality Standards for carbon monoxide, nitrogen dioxide, ozone, particulate matter, and in some areas (although not in California), sulfur dioxide. California has nonattainment or maintenance areas for all these transportation-related "criteria pollutants" except sulfur dioxide and also has a nonattainment area for lead. However, lead is not currently required by the Federal Clean Air Act to be covered in transportation conformity analysis. Regional conformity is based on emission analysis of Regional Transportation Plans and Federal Transportation Improvement Programs that include all transportation projects planned for a region over a period of at least 20 years (for the Regional Transportation Plan) and 4 years (for the Federal Transportation Improvement Program). The Regional Transportation Plan and Federal Transportation Improvement Program conformity uses travel demand and emission models to determine whether or not the implementation of those projects would conform to emission budgets or other tests at various analysis years, showing that requirements of the Federal Clean Air Act and the State Implementation Plan are met. If the conformity analysis is successful, the Metropolitan Planning Organization, Federal Highway Administration, and Federal Transit Administration make the determinations that the Regional

Transportation Plan and Federal Transportation Improvement Program conform with the State Implementation Plan for achieving the goals of the Federal Clean Air Act. Otherwise, the projects in the Regional Transportation Plan and/or Federal Transportation Improvement Program must be modified until conformity is attained. If the design concept, scope, and the "open-to-traffic" schedule of a proposed transportation project are the same as described in the Regional Transportation Plan and Federal Transportation Improvement Program, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Project-level conformity is achieved by demonstrating that the project comes from a conforming Regional Transportation Plan and Transportation Improvement Program; the project has a design concept and scope that has not changed significantly from those in the Regional Transportation Plans and Transportation Improvement Program; project analyses have used the latest planning assumptions and Environmental Protection Agency-approved emissions models; and in particulate matter areas, the project complies with any control measures in the State Implementation Plan. Furthermore, additional analyses (known as hot-spot analyses) may be required for projects located in carbon monoxide and particulate matter nonattainment or maintenance areas to examine localized air quality impacts.

Affected Environment

This section is based on the State Route 46 East/Union Road Intersection Improvements Air Quality Report (October 2022).

Topography and Climate

The topography of a region can substantially impact air flow and resulting pollutant concentrations. California is divided into 15 air basins with similar topography and meteorology to better manage air quality throughout the state. Each air basin has a local air district that is responsible for identifying and implementing air quality strategies to comply with ambient air quality standards. The project is in the City of Paso Robles and within the western portion of the South Central Coast Air Basin. The San Luis Obispo County Air Pollution Control District administers air quality regulations in the project area.

The City is in the upper Salinas River Valley. The Paso Robles area is bordered on the south and west by the rugged mountainous ridges of the Santa Lucia Coastal Range, to the east by the low hills of the La Panza and Temblor Ranges, and to the north by the low hills and flat-topped mesas of the Diablo Range. The highest elevations in the vicinity are in the Santa Lucia Coastal Range, where many peaks are 2,000 to 3,400 feet above mean sea level. Substantial ridgelines are distributed throughout the western, southern, and eastern portions of the City. The effects of the Pacific Ocean are diminished inland and by these major intervening terrain features. Air quality is affected by the rate, amount, and location of pollutant emissions and the

associated meteorological conditions that influence pollutant movement and dispersal. Atmospheric conditions, including wind speed, wind direction, and air temperature, in combination with local surface topography (in other words, geographic features, such as mountains and valleys), determine the effects of air pollutant emissions on local air quality.

The climate of the County of San Luis Obispo can be generally characterized as Mediterranean, with warm, dry summers and cool, relatively damp winters. Along the coast, mild temperatures are the rule throughout the year due to the moderating influence of the Pacific Ocean. This effect is diminished inland in proportion to the distance from the ocean or major intervening terrain features, such as the coastal mountain ranges. As a result, inland areas are characterized by a considerably wider range of temperature conditions. Maximum summer temperatures average about 70 degrees Fahrenheit near the coast, while inland valleys are often in the high 90s. Minimum winter temperatures average from the low 30s along the coast to the low 20s inland.

Regional meteorology is largely dominated by a persistent high-pressure area that commonly resides over the eastern Pacific Ocean. Seasonal variations in the strength and position of this pressure cell cause seasonal changes in the area's weather patterns. The Pacific High remains generally fixed several hundred miles offshore from May through September, enhancing onshore winds and opposing offshore winds. During spring and early summer, as the onshore breezes pass over the cool water of the ocean, fog and low clouds often form in the marine air layer along the coast. Surface heating in the interior valleys dissipates the marine layer as it moves inland.

From November through April, the Pacific High tends to migrate southward, allowing northern storms to move across San Luis Obispo County. About 90 percent of the total annual rainfall is received during this period. Winter conditions are usually mild, with intermittent periods of precipitation followed by mostly clear days. Rainfall amounts can vary considerably among different regions in the County. In the Coastal Plain, annual rainfall averages 16 to 28 inches, while the Upper Salinas River Valley generally receives about 12 to 20 inches of rain. The Carrizo Plain is the driest area of the County, with less than 12 inches of rain in a typical year.

Airflow around San Luis Obispo County plays an important role in the movement and dispersion of pollutants. Based on historical data obtained from the Paso Robles Airport, predominant winds in the Paso Robles area are from the northwest and southwest. The speed and direction of local winds are controlled by the location and strength of the Pacific high-pressure system, as well as other global patterns, topographical factors, and circulation patterns. On average, wind speeds are typically less than 10 miles per hour. At night, as the sea breeze dies, weak drainage winds flow down the coastal mountains and valleys to form a light, easterly land breeze.

In the fall, onshore surface winds decline, and the marine layer grows shallow, allowing an occasional reversal to a weak offshore flow. This, along with the diurnal alternation of land-sea breeze circulation, can sometimes produce a "sloshing" effect. Under these conditions, pollutants may accumulate over the ocean for one or more days and are subsequently carried back onshore with the return of the sea breeze. During the late fall and winter months, wind flow from the east is increasingly prevalent. Strong inversions can form at this time, "trapping" pollutants near the surface.

This effect is intensified when the Pacific High weakens or moves inland to the east, which may produce a “Santa Ana” condition in which air, often pollutant-laden, is transported into San Luis Obispo County from the east and southeast. This can occur over several days until the high-pressure system returns to its normal location, breaking the pattern. The breakup of a Santa Ana condition may result in relatively stagnant conditions and a buildup of pollutants offshore. The onset of the typical daytime sea breeze can bring these pollutants back onshore, where they combine with local emissions to cause high pollutant concentrations. Not all occurrences of the “post-Santa Ana” condition led to high ambient pollutant levels, but it does play an important role in the air pollution meteorology of San Luis Obispo County.

Criteria Pollutants and Attainment Status

The project site is in San Luis Obispo County, which is situated within the South Central Coast Air Basin. San Luis Obispo County, in its entirety, is Unclassifiable/Attainment for carbon monoxide, Particles of 10 micrometers or smaller, Particles of 2.5 micrometers or smaller, and nitrogen dioxide National Ambient Air Quality Standards. The western portion of San Luis Obispo County, which includes the project site, is designated Unclassifiable/Attainment for ozone. The eastern portion of San Luis Obispo County is designated nonattainment (marginal) for ozone based on the 2008 and 2015 8-hour ozone National Ambient Air Quality Standards. The nonattainment area is legally described as the portion of San Luis Obispo County that lies east of a line described as follows: Beginning at the San Luis Obispo County/Santa Barbara County boundary and running north along 120 degrees 24 minutes longitude to the intersection with 35 degrees 27 minutes latitude; east along 35 degrees 27 minutes latitude to the intersection with 120 degrees 18 minutes longitude; then north along 120 degrees 18 minutes longitude to the San Luis Obispo County/Monterey County boundary.

Attainment status designations for San Luis Obispo County are summarized in Table 2.38. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hours), nitrogen dioxide, and particulate matter (Particles of 10 micrometers or smaller, Particles of 2.5 micrometers or smaller, and visibility-reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded.

Table 2.38 State and Federal Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State Standard	Federal Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Ozone (see Transportation Conformity Guidance for 2015 Ozone National Ambient Air Quality Standards Nonattainment Areas)	1 hour 8 hours	0.09 parts per million 0.070 parts per million	0.070 parts per million (4th highest in 3 years)	High concentrations irritate the lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants. Biogenic volatile organic compounds may also contribute.	Low-altitude ozone is almost entirely formed from reactive organic gases/volatile organic compounds and nitrogen oxides in the presence of sunlight and heat. Common precursor emitters include motor vehicles and other internal combustion engines, solvent evaporation, boilers, furnaces, and industrial processes.	Nonattainment	Western San Luis Obispo County: Unclassified/Attainment

Pollutant	Averaging Time	State Standard	Federal Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Carbon Monoxide (see U.S. Environmental Protection Agency Carbon Monoxide Maintenance Letter)	1 hour 8 hours 8 hours (Lake Tahoe)	20 parts per million 9.0 parts per million 6 parts per million	35 parts per million 9 parts per million	Carbon monoxide interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. Carbon monoxide is also a minor precursor for photochemical ozone. Colorless, odorless.	Combustion sources, especially gasoline-powered engines and motor vehicles. Carbon monoxide is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.	Attainment	Attainment-Unclassified

Pollutant	Averaging Time	State Standard	Federal Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Respirable Particulate Matter (Particles of 10 micrometers or smaller; see notes)	24 hours Annual	50 micrograms per cubic meter 20 micrograms per cubic meter	150 micrograms per cubic meter (expected number of days above standard less than or equal to 1)	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some toxic air contaminants. Many toxic and other aerosol and solid compounds are part of Particles of 10 micrometers or smaller.	Dust-and fume-producing industrial and agricultural operations; combustion smoke and vehicle exhaust; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and reentrained paved road dust; natural sources.	Nonattainment	Attainment-Unclassified

Pollutant	Averaging Time	State Standard	Federal Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Fine Particulate Matter (see notes)	24 hours Annual	12 micrograms per cubic meter	35 micrograms per cubic meter 12.0 micrograms per cubic meter	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter–a toxic air contaminant–is in the Particles of 2.5 micrometers or smaller size range. Many toxic and other aerosol and solid compounds are part of Particles of 2.5 micrometers or smaller.	Combustion, including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical and photochemical reactions involving other pollutants, including nitrous oxide, sulfur oxide, ammonia, and reactive organic gas.	Attainment	Attainment-Unclassified

Pollutant	Averaging Time	State Standard	Federal Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Nitrogen Dioxide	1 hour Annual	0.18 parts per million 0.030 parts per million	0.100 parts per million (see notes) 0.053 parts per million	Irritating to eyes and respiratory tract. Changes the color of the atmosphere to reddish-brown. Contributes to acid rain and nitrate contamination of stormwater. Part of the “nitrous oxide” group of ozone precursors.	Motor vehicles and other mobile or portable engines, especially diesel; refineries; and industrial operations.	Attainment	Attainment-Unclassified

Pollutant	Averaging Time	State Standard	Federal Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Sulfur Dioxide (see notes)	1 hour 3 hours 24 hours Annual	0.25 parts per million 0.04 parts per million	0.075 parts per million (99th percentile over 3 years) 0.5 parts per million (secondary standard; conformity and environmental analysis address both primary and secondary National Ambient Air Quality Standards) 0.14 parts per million (for certain areas) 0.030 parts per million (for certain areas)	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, and steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing, and some natural sources like active volcanoes. Limited contribution is possible from heavy-duty diesel vehicles if ultra-low sulfur fuel is not used.	Attainment	Attainment-Unclassified

Pollutant	Averaging Time	State Standard	Federal Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Lead (see notes)	Monthly Calendar Quarter Rolling 3-month average	1.5 micrograms per cubic meter	1.5 micrograms per cubic meter (for certain areas) 0.15 micrograms per cubic meter (Lead National Ambient Air Quality Standards are not considered in Transportation Conformity analysis)	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also, a toxic air contaminant and water pollutant.	Lead-based industrial processes like battery production and smelters. Lead paint, leaded gasoline. Aerially deposited lead from older gasoline use may exist in soils along major roads.	Attainment	Attainment
Sulfates	24 hours	25 micrograms per cubic meter	Not Applicable	Premature mortality and respiratory effects. Contributes to acid rain. Some toxic air contaminants attach to sulfate aerosol particles.	Industrial processes, refineries and oil fields, mines, natural sources like volcanic areas, salt-covered dry lakes, and large sulfide rock areas.	Attainment	Not Applicable

Pollutant	Averaging Time	State Standard	Federal Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Hydrogen Sulfide	1 hour	0.03 parts per million	Not Applicable	Colorless, flammable, poisonous. Respiratory irritant. Neurological damage and premature death. Headache, nausea. Strong odor.	Industrial processes such as refineries and oil fields, asphalt plants, livestock operations, sewage treatment plants, and mines. Some natural sources like volcanic areas and hot springs.	Attainment	Not Applicable
Visibility Reducing Particles (see notes)	8 hours	Visibility of 10 miles or more (Tahoe: 30 miles) at a relative humidity of less than 70 percent	Not Applicable	Reduces visibility. Produces haze. Note: not directly related to the Regional Haze program under the Federal Clean Air Act, which is oriented primarily toward visibility issues in National Parks and other “Class One” areas. However, some issues and measurement methods are similar.	See particulate matter above. May be related more to aerosols than to solid particles.	Attainment	Not Applicable

Pollutant	Averaging Time	State Standard	Federal Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Vinyl Chloride	24 hours	0.01 parts per million	Not Applicable	Neurological effects, liver damage, cancer. Also considered a toxic air contaminant.	Industrial processes	Unclassified	Not Applicable

Notes: Adapted from the California Air Resources Board Air Quality Standards chart (https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf) and the San Luis Obispo County Air Pollution Control District Attainment Status chart (https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/AttainmentStatus29January2019.pdf).

Environmental Consequences

Temporary Impacts

No-Build Alternative

The No-Build Alternative would not result in construction activities and, therefore, would not result in temporary impacts related to air quality.

Build Alternative (Phases 1 and 2)

Construction Air Quality Conformity

Construction activities would not last for more than 5 years at one general location, so construction-related emissions do not need to be included in regional and project-level conformity analysis (40 Code of Federal Regulations 93.123(c)(5)).

Construction Emissions

Construction is expected to occur in several stages over approximately 48 months (24 months for Phase 1 and 24 months for Phase 2). Site preparation and roadway construction would involve clearing, cut-and-fill activities, grading, removing or improving existing roadways, and paving roadway surfaces. During construction, short-term degradation of air quality is expected from the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment powered by gasoline and diesel engines are also anticipated and would include carbon monoxide, nitrous oxide, reactive organic gas, directly emitted Particles of 10 micrometers or smaller and Particles of 2.5 micrometers or smaller, and toxic air contaminants such as diesel particulate matter. Construction activities are expected to increase traffic congestion in the area, resulting in increases in emissions from traffic during the delays. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Construction emissions were estimated using the Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model, Version 9.0.0. Although developed by the Sacramento Metropolitan Air Quality Management District for use in the Sacramento Valley Air Basin, the model is considered acceptable for use in other areas of the state. Emissions modeling was conducted based on construction information (for example, construction schedules, areas of disturbance, and material to be imported/exported) provided by the project engineer. All other construction activity assumptions were based on the default parameters contained in the model. The emissions presented are based on the best information available at the time of calculations.

Under the transportation conformity regulations (40 Code of Federal Regulations 93.123(c)(5)), construction-related activities that cause temporary increases in emissions are not subject to a particulate matter hot-spot

analysis. These temporary increases in emissions are those that occur only during the construction phase and last 5 years or less at any individual site. They typically fall into two main categories:

- Fugitive Dust: A major emission from construction due to ground disturbance. All air districts and the California Health and Safety Code (Sections 41700-41701) prohibit "visible emissions" exceeding three minutes in one hour–this applies not only to dust, but also to the engine exhaust. In general, this is interpreted as visible emissions crossing the right-of-way line. Sources of fugitive dust include disturbed soils at the construction site and trucks carrying uncovered loads of soil. Unless properly controlled, vehicles leaving the site may deposit mud on local streets, which could be an additional source of airborne dust after it dries. Particles of 10 micrometers or smaller emissions may vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. Particles of 10 micrometers or smaller emissions depend on soil moisture, silt content of the soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.
- Construction equipment emissions: Diesel Particulate Matter is a California-identified toxic air contaminant, and localized issues may exist if diesel-powered construction equipment is operated near sensitive receptors.

As shown in Table 2.39, construction of the proposed Build Alternative would generate maximum daily emissions of approximately 8.0 pounds a day of reactive organic gas, 68.1 pounds a day of carbon monoxide, 100.4 pounds a day of nitrous oxide, 54.0 pounds a day of Particles of 10 micrometers or smaller, and 13.7 pounds a day of Particles of 2.5 micrometers or smaller. Total emissions generated during construction would be 1.4 tons a year of reactive organic gas, 12.6 tons a year of carbon monoxide, 16.8 tons a year of nitrous oxide, 11.9 tons a year of Particles of 10 micrometers or smaller, and 2.9 tons a year of Particles of 2.5 micrometers or smaller.

Table 2.39 Estimated Daily Construction Emissions

Construction Phase	Reactive Organic Gas (Pounds per Day)	Carbon Monoxide (Pounds per Day)	Nitrous Oxide (Pounds per Day)	Particles of 10 Micrometers or Smaller (Pounds per Day)	Particles of 2.5 Micrometers or Smaller (Pounds per Day)
Land Clearing/Grubbing	1.1	10.7	11.3	50.5	10.8
Grading/Excavation	8.0	68.1	100.4	54.0	13.7
Drainage/Utilities/ Sub-Grade	5.3	46.7	52.5	52.1	12.3
Paving	1.0	13.9	11.2	0.5	0.4
Maximum/Day:	8.0	68.1	100.4	54.0	13.7
Project Total (Tons per Year):	1.4	12.6	16.8	11.9	2.9

Source: Ambient Air Quality and Noise Consulting, Limited Liability Company, State Route 46 East/Union Road Intersection Improvements Air Quality Report, October 2022.

Project construction would be required to comply with Caltrans' Standard Specifications (Caltrans 2018). Caltrans' specifications pertaining to dust control and dust palliative requirements are a required part of construction contracts and would effectively reduce and control emission impacts during construction. In addition, the State Health and Safety Code requires the contractor to prevent visible dust from leaving the construction site. Construction impacts to air quality are short-term and, therefore, would not result in long-term adverse conditions. Implementation of the following measures, some of which may also be required for other purposes such as stormwater pollution control, would reduce any air quality impacts resulting from construction activities:

- The construction contractor would comply with Caltrans' Standard Specifications (2018), including, but not limited to, the following:
  - Section 14-9 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.
  - Sections 7-1.04, 10-5, and 18-1.03 are directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are contained in Section 18.
  - Section 13-4.03F includes specifications for minimizing dust associated with street sweeping.
  - Section 13-7.03C is directed at controlling dust at construction site entrances and tracking soil and sediment onto public roads.
- Apply water or dust palliative to the site and equipment as frequently as necessary to control fugitive dust emissions. Fugitive emissions generally

must meet a "no visible dust" criterion either at the point of emission or at the right-of-way line depending on local regulations.

- Spread soil binder on any unpaved roads used for construction purposes and all construction parking areas.
- Wash off trucks as they leave the right-of-way, as necessary, to control fugitive dust emissions.
- Locate equipment and materials storage sites as far away from residential and park uses as practical. Keep construction areas clean and orderly.
- Use track-out reduction measures, such as gravel pads, at construction site access points to minimize dust and mud deposits on roads affected by construction traffic.
- Cover all transported loads of soils and wet materials before transport or provide adequate freeboard (space from the top of the material to the top of the truck) to minimize the emission of dust (particulate matter) during transportation.
- Promptly and regularly remove dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease particulate matter.
- Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulates in the area. Be aware that certain methods of mulch placement, such as straw blowing, may themselves cause dust and visible emission issues and may need to use controls such as dampened straw.
- Properly tune and maintain construction equipment and vehicles. Use low-sulfur fuel in all construction equipment as provided in California Code of Regulations Title 17, Section 93114.
- Extended idling of diesel equipment would be prohibited to the extent feasible.
- Route and schedule construction traffic to avoid peak travel times as much as possible to reduce congestion and related air quality impacts caused by idling vehicles along local roads.

San Luis Obispo County Air Pollution Control District Rules and Regulations

As noted above, Caltrans Standard Specifications, Section 14-9, specifically requires compliance with all applicable laws and regulations related to air quality, which would include applicable San Luis Obispo County Air Pollution Control District rules and regulations. Applicable San Luis Obispo County Air Pollution Control District rules include Rule 401, Visible Emissions; Rule 402, Nuisance; and Rule 420, Cutback Asphalt Paving Materials. Rule 401 prohibits the discharge of air contaminants into the atmosphere that would exceed opacity standards related to visible emissions. Rule 402, Nuisance, prohibits the discharge of air contaminants into the atmosphere that would

cause injury, detriment, nuisance, or annoyance to any considerable number of persons or damage to business or property. Rule 420, Cutback Asphalt Paving Materials, addresses emissions generated by the manufacture, application, and sale of cutback and emulsified asphalt materials for the paving, construction, and maintenance of asphalt surfaces. In addition, the project would comply with all rules and regulations of the San Luis Obispo County Air Pollution Control District that pertain to construction activities.

Odor

Minor sources of odors would be present during construction. The predominant source of power for construction equipment is diesel engines. Exhaust odors from diesel engines and emissions associated with asphalt paving may be considered offensive to some individuals. However, because odors would be temporary and disperse rapidly with distance from the source, construction-generated odors are not anticipated to result in the frequent exposure of receptors to objectionable odorous emissions, and impacts would not be adverse.

Naturally Occurring Asbestos

The project site is not in an area identified as containing or likely to contain serpentine and ultramafic rock. Therefore, exposure to naturally occurring asbestos during construction is not expected.

Permanent Impacts

No-Build Alternative

No alterations to the existing roadway network would occur under the No-Build Alternative; therefore, no adverse effects related to air quality would occur.

Build Alternative (Phases 1 and 2)

Regional Conformity

The Build Alternative is listed in the 2019 financially constrained Regional Transportation Plan, which was found to conform by the San Luis Obispo Council of Governments on April 23, 2019, and the Federal Highway Administration and Federal Transit Administration made a regional conformity determination finding on July 8, 2019. The Build Alternative is also included in the financially constrained 2021 Federal Transportation Improvement Program, page 46. The 2019 Regional Transportation Plan and 2021 Federal Transportation Improvement Program were determined to conform by Federal Highway Administration and Federal Transit Administration on July 8, 2019, and April 16, 2021, respectively. The design concept and scope of the Build Alternative are consistent with the project description in the 2019 Regional Transportation Plan and 2021 Federal Transportation Improvement Program. The “open to traffic” assumptions of the San Luis Obispo Council of Governments’ regional emissions analysis are not consistent because the

Phase 1 “open to traffic” date has been recently modified from 2025 to 2029, and the Phase 2 “open to traffic” date has been modified from 2045 to 2049. However, based on the Technical Memorandum to the Air Quality Report, the updated project opening years for both Phase 1 and Phase 2 would not alter the conclusions of the Air Quality Report. Accordingly, the updates to the “open to traffic” dates would not affect the analysis or conclusions of this environmental document.

Project-Level Conformity

San Luis Obispo County, in its entirety, is Unclassifiable/Attainment for all Carbon Monoxide, Particles of 10 Micrometers or Smaller and Particles of 2.5 Micrometers or Smaller), and nitrogen dioxide National Ambient Air Quality Standards. Conformity requirements, therefore, do not apply to those National Ambient Air Quality Standards.

Regional Emissions–Mobile Sources

Operational mobile-source emissions for the Build Alternative were quantified based on data derived from the traffic analysis prepared for this project, which is consistent with the traffic models and projections used by the San Luis Obispo Council of Governments. Emissions were quantified for the existing/baseline conditions, opening year 2025, and future design year 2045 conditions. Emissions for opening year 2025 and future design year 2045 conditions were quantified for the No-Build Alternative and the Build Alternative (Phases 1 and 2). Table 2.40 summarizes a comparative summary of estimated mobile-source emissions. As stated above, Phase 1 of the project was originally expected to complete construction and be open to traffic by 2025 and is now anticipated to be open to traffic by 2029. Phase 2 of the proposed project was originally expected to complete construction and be open to traffic by 2045 and is now anticipated to be open to traffic by 2049. Based on the Technical Memorandum to the Air Quality Report, the updated project opening years for both Phase 1 and Phase 2 would not alter the conclusions of the Air Quality Report. Because the changes in the opening years would not alter the conclusions and for consistency with the Air Quality Report, the original opening years are referenced throughout this section.

As the purpose of the project is to improve operations and access, thereby reducing delays and thus emissions, under opening year 2025 and future design year 2045 conditions, the Build Alternative (Phase 1 and Phase 2) would result in decreased emissions when compared to baseline conditions. When compared to the No-Build Alternative, the Build Alternative (Phase 1 and Phase 2) would result in slight reductions in emissions under opening year 2025 conditions. In comparison to design year 2045 no-build conditions, the Build Alternative (Phase 1 and Phase 2) would result in slight increases in emissions. Phase 1 of the Build Alternative would result in slight increases of approximately 0.01 ton per year of reactive organic gasses, 0.09 ton per year of carbon monoxide, and 0.03 ton per year of nitrogen oxides. Increased

emissions of Particles of 10 micrometers or smaller and Particles of 2.5 micrometers or smaller associated with Phase 1 of the Build Alternative would be negligible (in other words, less than 0.01 ton per year) when compared to no-build conditions. Phase 2 of the Build Alternative would result in slight increases of approximately 0.11 ton per year of carbon monoxide. Increased emissions of reactive organic gas, nitrous oxide, particles of 10 micrometers or smaller, and particles of 2.5 micrometers or smaller are associated with Phase 2 of the Build Alternative and would be negligible (in other words, less than 0.01 ton per year) when compared to no-build conditions. These slight increases in emissions are anticipated to be somewhat offset by reductions in delays and associated vehicle emissions. When compared to Phase 1 of the Build Alternative, Phase 2 would result in slight reductions in overall emissions.

Table 2.40 Estimated Daily Mobile-Source Emissions

Scenario/Year	Annual Reactive Organic Gas (Tons)	Annual Carbon Monoxide (Tons)	Annual Nitrous Oxide (Tons)	Annual Particles of 10 Micrometers or Smaller (Tons)	Annual Particles of 2.5 Micrometers or Smaller (Tons)
Existing/Baseline Conditions	1.14	23.06	14.67	0.91	0.47
No-Build Alternative–Opening Year 2025	0.44	9.37	5.71	0.05	0.05
No-Build Alternative 2025 Compared to Existing:	Negative 0.71	Negative 13.69	Negative 8.97	Negative 0.86	Negative 0.42
Build Alternative–Phase 1–Opening Year 2025	0.42	8.89	5.45	0.05	0.05
Phase 1 2025 Compared to Existing:	Negative 0.73	Negative 14.17	Negative 9.22	Negative 0.86	Negative 0.42
Phase 1 2025 Compared to No-Build Alternative 2025	Negative 0.02	Negative 0.48	Negative 0.26	0.00	0.00
Build Alternative-Phase 2–Opening Year 2025	0.41	8.73	5.33	0.05	0.05
Phase 2 2025 Compared to Existing:	Negative 0.73	Negative 14.34	Negative 9.34	Negative 0.86	Negative 0.43
Phase 2 2025 Compared to No-Build Alternative 2025	Negative 0.03	Negative 0.65	Negative 0.38	0.00	0.00
Phase 2 2025 Compared to Phase 1 2025:	Negative 0.01	Negative 0.17	Negative 0.12	0.00	0.00
No-Build Alternative–Design Year 2045	0.19	4.10	1.04	0.02	0.02
No-Build Alternative 2045 Compared to Existing:	Negative 0.95	Negative 18.97	Negative 13.64	Negative 0.89	Negative 0.46
Build Alternative–Phase 1–Design Year 2045	0.20	4.19	1.06	0.02	0.02
Phase 1 2045 Compared to Existing:	Negative 0.94	Negative 18.87	Negative 13.61	Negative 0.89	Negative 0.46
Phase 1 2045 Compared to No-Build Alternative 2045	0.01	0.09	0.03	0.00	0.00

Scenario/Year	Annual Reactive Organic Gas (Tons)	Annual Carbon Monoxide (Tons)	Annual Nitrous Oxide (Tons)	Annual Particles of 10 Micrometers or Smaller (Tons)	Annual Particles of 2.5 Micrometers or Smaller (Tons)
Build Alternative–Phase 2–Design Year 2045	0.19	4.21	1.04	0.02	0.02
Phase 2 2045 Compared to Existing:	Negative 0.95	Negative 18.85	Negative 13.63	Negative 0.89	Negative 0.46
Phase 2 2045 Compared to No-Build Alternative 2045	0.00	0.11	0.00	0.00	0.00
Phase 2 2045 Compared to Phase 1 2045:	Negative 0.01	0.02	Negative 0.02	0.00	0.00

Source: Ambient Air Quality and Noise Consulting, Limited Liability Company, State Route 46 East/Union Road Intersection Improvements Air Quality Report, October 2022.

Mobile-Source Air Toxics Analysis

At the time of the analysis, the October 2016 Federal Highway Administration provided guidance for determining when and how to address mobile-source air toxic emission impacts in the National Environmental Policy Act process for transportation projects. The Federal Highway Administration identified three levels of analysis:

- No analysis for exempt projects or projects with no potential for meaningful mobile-source air toxic effects;
- Qualitative analysis for projects with low potential mobile-source air toxic effects; and
- Quantitative analysis to differentiate alternatives for projects with higher potential mobile-source air toxic effects.

Projects with no impacts generally include: a) projects that qualify as a categorical exclusion under 23 Code of Federal Regulations 771.117, b) projects that qualify as exempt under the Federal Clean Air Act conformity rule under 40 Code of Federal Regulations 93.126, and c) projects that are not exempt, but have no meaningful impacts on traffic volumes or vehicle mix.

Projects that have low potential mobile-source air toxic effects are those that serve to improve highway, transit, or freight operations or movement without adding substantial new capacity or creating a facility that is likely to substantially increase emissions. Most projects fall into this category.

Projects with high potential mobile-source air toxic effects include those that:

- Create or significantly alter a major intermodal freight facility that has the potential to concentrate high levels of diesel particulate matter in a single location; or

- Create new or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the annual average daily traffic is projected to be in the range of 140,000 to 150,000, or greater, by the design year; and
- Are proposed to be located in proximity to populated areas or, in rural areas, in proximity to concentrations of vulnerable populations (for example, schools, nursing homes, and hospitals).

The purpose of the Build Alternative is to improve operations and access and reduce delays from post miles 30.7 to 32.4 through operational and/or capacity improvements at the State Route 46 East (State Route)/Union Road and State Route 46/Airport Road intersections. The Build Alternative is needed to address excessive delays and poor operations and to improve limited access to and across State Route 46 at the Union Road-Paso Robles Boulevard intersection. These problems/deficiencies include delays/poor operations at the at-grade stop-controlled intersections of State Route 46/Union Road and Airport Road/State Route 46, limited access and connectivity for all travel modes between the north and south sides of State Route 46, and limited access and connectivity on the north side of Union Road (Paso Robles Blvd). The Build Alternative would not affect vehicle mix or vehicle miles traveled relative to the No-Build Alternative. The estimated existing annual average daily traffic for State Route 46 is approximately 27,500 or less. Under the design year 2045 conditions, the annual average daily traffic volumes along mainline segments of State Route 46 would be 50,500 or less. Estimated existing and future annual average daily traffic volumes would be substantially lower than the Federal Highway Administration criterion value of 140,000 annual average daily traffic, which is identified as the minimum volume for higher potential mobile-source air toxic effects.

Based on the above information, the Build Alternative is identified as a Category (2) project; that is, the Build Alternative would have a low potential for mobile-source air toxic effects. As a result, the Build Alternative is not expected to result in an appreciable difference in overall mobile-source air toxic emissions when compared to the No-Build Alternative. In addition, it is important to note that emissions would likely be lower than present levels in the design year as a result of the U.S. Environmental Protection Agency's national control programs that are projected to reduce annual mobile-source air toxic emissions by over 80 percent between 2010 and 2050. As noted earlier, local conditions may differ from these national projections in terms of fleet mix and turnover, vehicle miles traveled growth rates, and local control measures. However, the magnitude of the U.S. Environmental Protection Agency-projected reductions is so great (even after accounting for vehicle miles traveled growth) that mobile-source air toxic emissions in the study area are likely to be lower in the future in nearly all cases.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures would be required.

Climate Change

Neither the U.S. Environmental Protection Agency nor the Federal Highway Administration has issued explicit guidance or methods to conduct project-level greenhouse gas analysis. The Federal Highway Administration emphasizes concepts of resilience and sustainability in highway planning, project development, design, operations, and maintenance. Because there have been requirements set forth in California legislation and executive orders on climate change, the issue is addressed in the California Environmental Quality Act chapter of this document. The California Environmental Quality Act analysis may be used to inform the National Environmental Policy Act determination for the project.

2.2.7 Noise and Vibration

Regulatory Setting

The National Environmental Policy Act of 1969 and the California Environmental Quality Act provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between the National Environmental Policy Act and the California Environmental Quality Act.

California Environmental Quality Act

The California Environmental Quality Act requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under the California Environmental Quality Act, then the California Environmental Quality Act dictates that mitigation measures must be incorporated into the project unless those measures are not feasible. The rest of this section will focus on the National Environmental Policy Act/Title 23 Part 772 of the Code of Federal Regulations noise analysis. Chapter 3 of this document contains additional information on noise analysis under the California Environmental Quality Act.

National Environmental Policy Act and 23 Code of Federal Regulations 772

For highway transportation projects with Federal Highway Administration involvement (and Caltrans, as assigned), the Federal-Aid Highway Act of 1970 and its implementing regulations (23 Code of Federal Regulations 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations include noise abatement criteria that are used to determine when

a noise impact would occur. The noise abatement criteria differ depending on the type of land use under analysis. For example, the noise abatement criteria for residences (67 A-weighted decibels) are lower than the noise abatement criteria for commercial areas (72 A-weighted decibels). Table 2.41 lists the noise abatement criteria for use in the National Environmental Policy Act/23 Code of Federal Regulations 772 analysis.

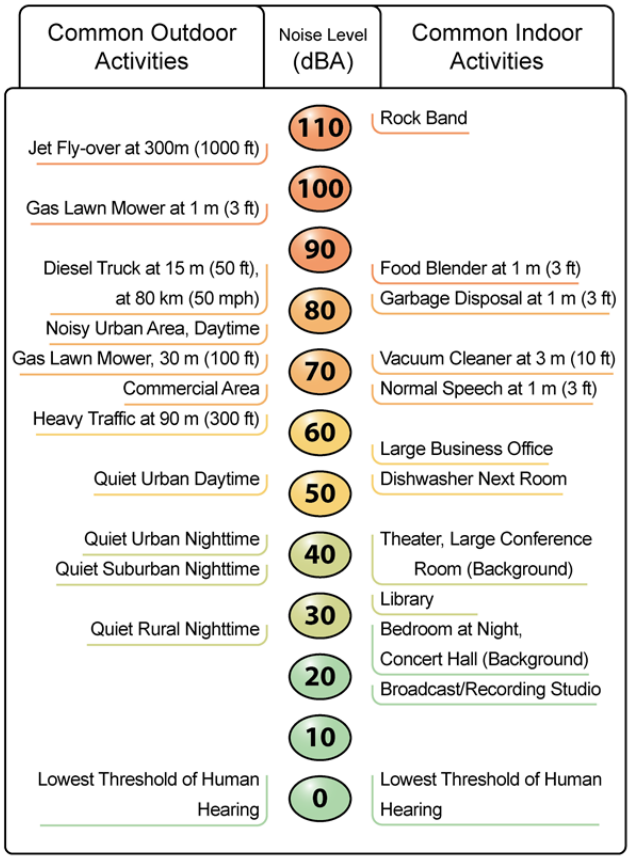
In Table 2.41 below, undeveloped lands are permitted for activity categories B and C.

Table 2.41 Noise Abatement Criteria

Activity Category	Noise Abatement Criteria, Hourly A-Weighted Noise Level, Leq(h)	Description of Activity Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	Residential.
C	67 (Exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (Exterior)	Hotels, motels, offices, restaurants, bars, and other developed lands, properties, or activities not included in A-D or F.
F	No Noise Abatement Criteria—Reporting Only	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical, et cetera), and warehousing.
G	No Noise Abatement Criteria—Reporting Only	Undeveloped lands that are not permitted.

Figure 2-29 lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise levels discussed in this section with common activities.

Figure 2-29 Noise Levels for Common Activities



According to the Caltrans Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (April 2020), a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as 12 A-weighted decibels or more) or when the future noise level with the project approaches or exceeds the noise abatement criteria. A noise level is considered to approach the noise abatement criteria if it is within 1 A-weighted decibel of the noise abatement criteria.

If it is determined that the project will have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated into the project.

The Caltrans Traffic Noise Analysis Protocol sets forth the criteria for determining when an abatement measure is reasonable and feasible. The feasibility of noise abatement is an engineering concern. Noise abatement must be predicted to reduce noise by at least 5 A-weighted decibels at an impacted “receptor” (noise-sensitive location) to be considered feasible from

an acoustical perspective. It must also be possible to design and construct the noise abatement measure for it to be considered feasible. Factors that affect the design and constructability of noise abatement include, but are not limited to, safety, barrier height, topography, drainage, access requirements for driveways, presence of local cross streets, underground utilities, and other noise sources in the area, and maintenance of the abatement measure. The overall reasonableness of noise abatement is determined by the following three factors: 1) the noise reduction design goal of 7 A-weighted decibels at one or more impacted receptors; 2) the cost of noise abatement, and 3) the viewpoints of benefited receptors (including property owners and residents of the benefited receptors).

Affected Environment

This section is based on the State Route 46 East/Union Road Intersection Improvements Noise Study Report (March 2022).

Land Uses and Sensitive Receptors

Noise meters were used to take ambient noise levels near the project site for measuring existing conditions.

A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the project. Existing land uses in the project area were categorized by land use type and Activity Category as defined in Table 2.41 above, and the extent of frequent human use.

The project underwent modeling for noise. This level of modeling included field investigations to identify surrounding land uses that could be subject to traffic and construction noise impacts from the project. Land uses identified within the project area consist of a mix of residential, campground, park, recreation area, hotel, restaurant, winery, amusement park, industrial, retail, and warehouse land uses.

Outdoor areas of frequent human use in the project area include Starbucks, Ravine Water Park, Eos Estate Winery, Wine Country Recreational Vehicle Resort, Paso Robles Sports Club, Barney Schwartz Park, and the outdoor activity area of single-family residential dwellings. As noted in Table 2.41, outdoor activity areas of residential land uses are considered Activity Category B land uses. Barney Schwartz Park, Paso Robles Sports Club, and Wine Country Recreational Vehicle Resort are considered Activity Category C land uses. Starbucks, Eos Estate Winery, The Ravine Water Park, and the proposed Hotel are considered Activity Category E land uses. All other land uses in the project area are considered Activity Category F land uses and are not sensitive to noise.

Noise Measurements

A field noise study was conducted for the project, in which noise measurements were taken to collect short-term and long-term sound level data. Measurements for both sound level data are further discussed below.

Short-Term Noise Measurements

Locations in which short-term noise measurements were taken and their results are summarized in Table 2.42. Primary noise sources at measurement locations included vehicle traffic on nearby roadways. Noise measurement locations are approximately 5 feet above ground level. Ambient noise levels were largely influenced by vehicle traffic on State Route 46 East (State Route 46). Traffic noise levels vary depending on various factors, including distance from the roadway and time of day. Background noise levels averaged approximately 44 A-weighted decibels equivalent sound level, which was roughly 20 A-weighted decibels lower than measured traffic noise levels.

Table 2.42 Summary of Short-Term Noise Measurements

Measurement Locations	Date	Measurement Period	Measured A-Weighted Decibels Equivalent Sound Level
Union Road at Barney Schwartz Park. Approximately 45 feet from the centerline.	February 7, 2019 April 17, 2019	07:30-07:40 09:45-09:55	64.5 65.8
2915 Union Road. Approximately 37 feet from the centerline.	February 7, 2019	07:50-08:00	70.3
2323 Tuley Road. Approximately 90 feet from the State Route 46 centerline.	February 7, 2019	08:10-08:20	74.1
2944 Union Road. (Background Noise Measurement)	February 7, 2019	08:30-08:40	44.4
State Route 46 at Wine Country Recreational Vehicle Resort. Approximately 100 feet from the centerline.	February 7, 2019 April 17, 2019	09:00-09:10 11:10-11:20	64.5 67.2
2925 Union Road. Approximately 35 feet from the centerline.	February 7, 2019	09:20-09:30	69.7
3523 Combine Street. Approximately 100 feet from the State Route 46 centerline.	April 17, 2019 June 24, 2019	10:20-10:30 16:20-16:30	67.6 68.6
2940 Union Road. Approximately 55 feet from the centerline.	April 17, 2019	10:30-10:40	65.1
Tractor Street. Approximately 20 feet from the centerline.	April 17, 2019	10:50-11:00	56.9
Paso Robles Boulevard. Approximately 120 feet from the State Route 46 centerline.	April 17, 2019	11:10-11:20	69.8
Golden Hill Road. Approximately 62 feet from the centerline.	June 26, 2019	08:15-08:25	62.7
Golden Hill Road. Approximately 45 feet from the centerline.	June 26, 2019	08:30-08:40	68.5

Source: Ambient Air Quality and Noise Consulting, Limited Liability Company, Noise Study Report, March 2022.

The Traffic Noise Model used for this analysis considers the locations of “receptors” and “receivers.” The Caltrans Traffic Noise Analysis Protocol defines a receptor as “a discrete or representative location of an actual noise-sensitive area(s)" and defines a receiver as “a point in the model that represents a single receptor or multiple receptors.” The Traffic Noise Model was calibrated based on traffic noise measurement data obtained at most short-term measurement locations. Calibration sites were chosen for the major roadway segments affected by the proposed project that were representative of receiver locations; refer to Figure 2-30, Modeled Receiver Locations. The Traffic Noise Model compared measured and modeled noise levels at respective calibration measurement locations and predicted traffic noise levels to be within 1.6 A-weighted decibels of measured noise levels. The predicted sound levels are within 2.0 A-weighted decibels of the measured sound levels and are, therefore, considered to be in reasonable agreement with the measured sound levels.

Figure 2-30 Modeled Receiver Locations

Long-Term Noise Measurement

A long-term noise measurement survey was conducted at the southwestern terminus of Combine Street, approximately 45 feet north of State Route 46. The purpose of the long-term measurement was to identify variations in sound levels throughout the day. The long-term noise level data were collected over a 24-hour period, beginning Monday, February 11, 2019, and ending Tuesday, February 12, 2019.

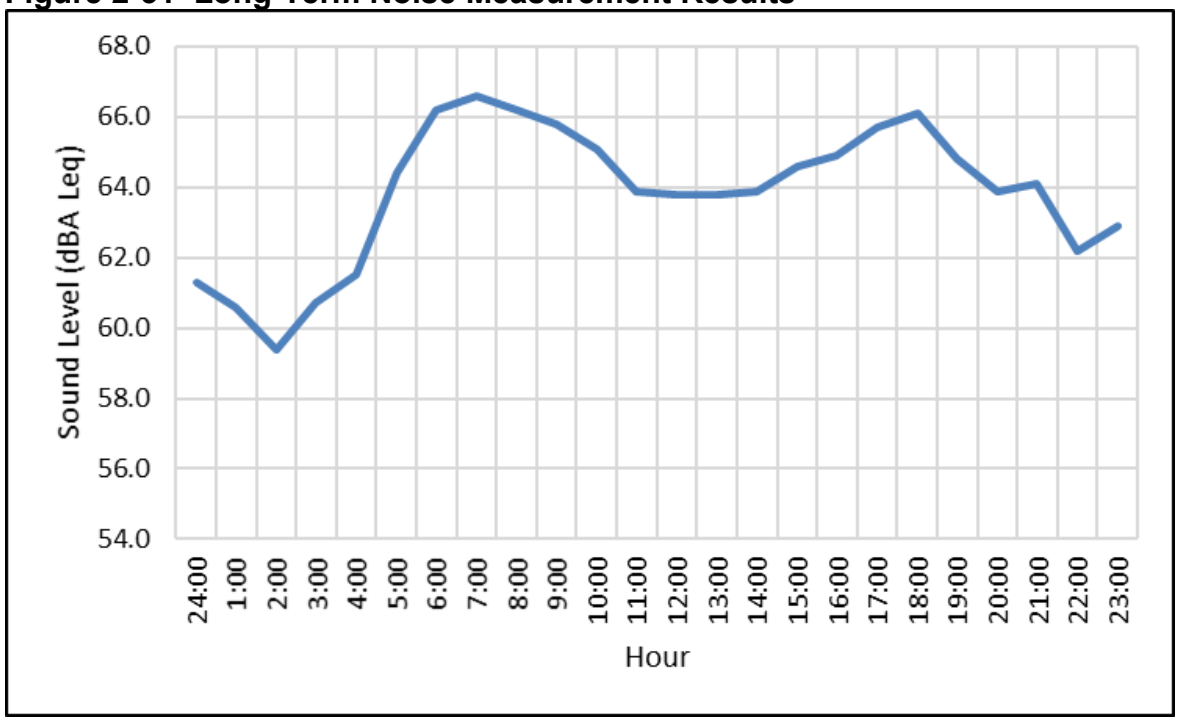
The highest average-hourly traffic noise level measured was 66.6 A-weighted decibels equivalent sound level (h) during the 7:00 a.m. hour. The average-hourly traffic noise level during the evening peak hour was 66.1 A-weighted decibels. Daytime noise levels along State Route 46 generally range from approximately 64 to 67 A-weighted decibels equivalent sound level, as noted in Table 2.43. The worst noise hour noise level is bolded in the table. Figure 2-31 graphically shows the results of the long-term measurement survey.

Table 2.43 Summary of Long-Term Noise Measurement

Hour Beginning (Military Time)	Average (A-Weighted Decibels Equivalent Sound Level[H])	Difference From Loudest Hour (A-Weighted Decibels)
01:00	60.6	6.0
02:00	59.4	7.2
03:00	60.7	5.9
04:00	61.5	5.1
05:00	64.4	2.2
06:00	66.2	0.4
07:00	**66.6**	**0.0**
08:00	66.2	0.4
09:00	65.8	0.8
10:00	65.1	1.5
11:00	63.9	2.7
12:00	63.8	2.8
13:00	63.8	2.8
14:00	63.9	2.7
15:00	64.6	2.0
16:00	64.9	1.7
17:00	65.7	0.9
18:00	66.1	0.5
19:00	64.8	1.8
20:00	63.9	2.7
21:00	64.1	2.5
22:00	62.2	4.4
23:00	62.9	3.7
24:00	61.3	5.3

Source: Ambient Air Quality and Noise Consulting, Limited Liability Company, Noise Study Report, March 2022.

Figure 2-31 Long-Term Noise Measurement Results



Source: Ambient Air Quality and Noise Consulting, Limited Liability Company, Noise Study Report, March 2022.

Environmental Consequences

Temporary Impacts

No-Build Alternative

Project improvements would not occur under the No-Build Alternative; therefore, the No-Build Alternative would not result in temporary noise impacts.

Build Alternative (Phases 1 and 2)

During project construction, noise from construction activities may intermittently affect the noise environment in the immediate area of construction. Noise associated with construction is controlled by Caltrans Standard Specification Section 14-8.02, “Noise Control,” which states the following:

- Do not exceed 86 A-weighted decibels maximum sound level at 50 feet from the job site activities from 9:00 p.m. to 6:00 a.m.
- Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.

Representative noise levels produced by construction equipment are summarized in Table 2.44. As shown, construction equipment can generate intermittent noise levels ranging from 77 to 90 decibels A maximum sound

level at 50 feet. At this same distance, average-hourly equipment noise levels range from approximately 73 to 82 A-weighted decibels equivalent sound level. Noise produced by construction equipment typically decreases at a rate of approximately 6 A-weighted decibels per doubling of distance from the source. For instance, based on the estimated average hourly noise levels identified above, construction-generated noise levels would range from approximately 67 to 76 A-weighted decibels equivalent sound level at 100 feet and from approximately 61 to 70 A-weighted decibels equivalent sound level at 200 feet. Construction equipment noise levels would vary depending on various factors, such as the activities conducted and the type and number of pieces of equipment operating. Construction activities would also result in slight increases in vehicle traffic along area roadways due to construction employee vehicle trips, equipment and supply deliveries, and other ancillary operations.

Table 2.44 Construction Equipment Noise

Equipment	Noise Level (Decibels A at 50 Feet), Maximum Sound Level	Noise Level (Decibels A at 50 Feet), A-Weighted Decibels Equivalent Sound Level
Bulldozers	82	78
Concrete Truck	79	75
Dump Trucks	77	73
Backhoe	78	74
Pneumatic Tools	85	82
Concrete Pump	81	78
Loader	79	75
Roller	80	73
Compressors	78	74
Crane	81	73
Paver	77	74
Hoe Ram	90	80
Excavators	81	77
Grader	85	81
Scrapers	84	80

Source: Ambient Air Quality and Noise Consulting, Limited Liability Company, Noise Study Report, March 2022.

No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with Caltrans Standard Specifications Section 14.8-02. Construction noise would be short-term, intermittent, and largely overshadowed by local traffic noise.

Ground-borne vibration levels associated with construction equipment are summarized in Table 2.45. Based on the levels shown, construction equipment often associated with road development projects would generate ground vibration levels of approximately 0.21 in/sec peak particle velocity (94 Vibration Level), or less, at 25 feet. The highest vibration levels would be associated with the use of vibratory rollers. However, vibration levels

associated with vibratory rollers would not occur for an extended duration at any one location and would operate more than 25 feet from nearby buildings. Vibration-reducing construction measures would be implemented near vibration-sensitive structures. A historic-era structure (the Johnson House) is located along the northerly side of Union Road, approximately 0.25 mile south of the existing State Route 46/Union Road intersection; refer to Section 2.1.12, Cultural Resources, for additional information. The Johnson House could be subject to temporary construction-related vibration impacts. The Johnson House is treated as a Category 4 building; the peak particle velocity threshold associated with ground-borne vibrations for Category 4 buildings is 0.12 peak particle velocity inches per second. As shown in Table 2.34, the usage of static rollers may produce ground-borne vibration levels below the 0.12 peak particle velocity inches per second threshold for Category 4 buildings at 35 feet. However, the static rollers may produce ground-borne vibration levels above the 0.12 peak particle velocity inches per second threshold at 25 feet. Due to the Build Alternative's potential for exceeding the threshold, vibration monitoring would be implemented and enforced when static rollers are used within 35 feet of the Johnson House. With the implementation of avoidance and minimization measures Cultural Resources-2 through Cultural Resources-4, vibratory effects related to nearby buildings would not be adverse.

Table 2.45 Representative Construction Equipment Vibration Levels

Equipment	Vibration Level at 25 Feet, Peak Particle Velocity (Peak Particle Velocity, Inches per Second)	Vibration Level at 25 Feet, Vibration Level (Microinches per Second)
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large Bulldozers	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozers	0.003	58

Source: Ambient Air Quality and Noise Consulting, Limited Liability Company, Noise Study Report, March 2022.

Permanent Effects

The project is considered a Type 1 project under 23 Code of Federal Regulations 772 since it entails a "proposed federal or federal aid highway project for the construction of a highway on a new location or the physical alteration of an existing highway, which changes either the horizontal or vertical alignment or increases the number of through-traffic lanes." All Type 1 projects are required to consider noise abatement measures.

To determine traffic-related noise attributed to the project, model runs for the No-Build and Build Alternative were developed using Traffic Noise Model 2.5 computer modeling. As discussed in the Noise Study Report, the project would result in a traffic noise impact if either the traffic noise level at a

sensitive receiver location is predicted to "approach or exceed" the Noise Abatement Criteria or if the predicted traffic noise level is 12 decibels A or more over the corresponding modeled existing peak noise level at the sensitive receiver locations analyzed. Per the Caltrans Traffic Noise Analysis Protocol, "approach" is also defined as when the sound level is within 1 A-weighted decibel of the Noise Abatement Criteria; for example, for the criteria of 67 A-weighted decibels, 66 A-weighted decibels is considered approaching, whereas 65 A-weighted decibels is not. When traffic noise impacts occur, noise abatement measures must be considered.

No-Build Alternative

To determine whether a traffic noise impact would occur, predicted design-year traffic noise levels without the project (No-Build Alternative) are compared to the predicted design-year (2045) conditions with the project. The modeled future noise levels for each receiver were also compared to their respective Noise Abatement Criteria Activity Category. Refer to Table 2.41 for a summary of Noise Abatement Criteria Activity Categories and their respective land use categories.

Single-family residential uses are considered Category B land uses. The Noise Abatement Criteria for Category B land uses is 67 A-weighted decibels equivalent sound level. Predicted design-year traffic noise levels without the project at the outdoor activity area of single-family land uses located at the southeast corner of State Route 46 would range from 53 to 65 A-weighted decibels equivalent sound level and would not approach or exceed the Noise Abatement Criteria of 67 A-weighted decibels equivalent sound level or result in a substantial increase in noise.

Campgrounds, parks, and recreation areas are considered Category C land uses. The Noise Abatement Criteria for Category C land uses is 67 A-weighted decibels equivalent sound level. The predicted design-year traffic noise levels without the project at the Category C campground, park, and recreation area land uses located southeast and northeast of State Route 46 would range from 60 to 69 A-weighted decibels equivalent sound level and would exceed the Noise Abatement Criteria of 67 A-weighted decibels equivalent sound level at the campground.

Hotel, restaurant, winery, and amusement park land uses are considered Category E land uses. The predicted design-year traffic noise levels without the project at the outdoor activity areas of the hotel, restaurant, winery, and amusement park land uses (located in the northwest, northeast, and southwest corner of the State Route 46 and Golden Hill Road intersection, as well as south east of the project alignment) would range from 59 to 69 A-weighted decibels equivalent sound level and would not approach or exceed the Noise Abatement Criteria of 72 A-weighted decibels equivalent sound level or result in a substantial increase in noise.

Industrial, retail, and warehouse land uses in the project area are considered Category F land uses. Predicted design-year traffic noise levels without the project at the retail, and warehouse (located in the northwest and northeast corner of the State Route 46 and Golden Hill Road intersection) as well as industrial uses (located north and south of State Route 46) would range from 63 to 73 A-weighted decibels equivalent sound level. There are no applicable Noise Abatement Criteria for industrial, retail, or warehouse land uses in the project area and the traffic noise levels would not result in a substantial increase in noise.

As such, traffic noise for predicted design-year conditions without the project would exceed respective Noise Abatement Criteria for surrounding Category C campground, park, and recreation land uses (Wine Country Recreational Vehicle Resort); a substantial increase in noise would not occur for other land use categories surrounding the project area.

Build Alternative (Phases 1 and 2)

To determine whether a traffic noise impact would occur with the Build Alternative, predicted design-year traffic noise levels with the project (Build Alternative) are compared to the predicted design-year (2045) conditions without the project. The modeled future noise levels for each receiver were also compared to their respective Noise Abatement Criteria Activity Categories. The only location where traffic noise would exceed respective Noise Abatement Criteria, and thus would require consideration for noise abatement, is the Wine Country Recreational Vehicle Resort (Category C campground, park, and recreation land use); future worst hour noise levels with the project at this location would range from 60 to 69 A-weighted decibels equivalent sound level (Noise Abatement Criteria is 67 A-weighted decibels equivalent sound level). Refer to Table 2.41 for a summary of Noise Abatement Criteria Activity Categories and their respective land use categories.

Predicted design-year traffic noise levels with the project at the outdoor activity area of single-family land uses (at the southeast corner of State Route 46) would range from 57 to 61 A-weighted decibels equivalent sound level and would not approach or exceed the Noise Abatement Criteria of 67 A-weighted decibels equivalent sound level or result in a substantial increase in noise. As a result, noise abatement is not considered.

Predicted design-year traffic noise levels with the project at the Category C campground, park, and recreation area land uses (located southeast and northeast of State Route 46) would range from 60 to 69 A-weighted decibels equivalent sound level and would exceed the Noise Abatement Criteria of 67 A-weighted decibels equivalent sound level at the campground. As a result, consideration of noise abatement is required for the campground land use.

Predicted design-year traffic noise levels with the project at the outdoor activity areas of the hotel, restaurant, winery, and amusement park land uses (located in the northwest, northeast, and southwest corner of the State Route 46 and Golden Hill Road intersection, as well as southeast of the project alignment), would range from 56 to 66 A-weighted decibels equivalent sound level and would not approach or exceed the Noise Abatement Criteria of 72 A-weighted decibels equivalent sound level or result in a substantial increase in noise. As a result, noise abatement is not considered for these land uses.

Predicted design-year traffic noise levels with the project at the retail and warehouse (Receivers R-2, R-3, R-5 to R-20, R-23, and R-36 to R-42) (located in the northwest and northeast corner of the State Route 46 and Golden Hill Road intersection), as well as industrial uses (located north and south of State Route 46), would range from 65 to 72 A-weighted decibels equivalent sound level. There are no applicable Noise Abatement Criteria for industrial, retail, or warehouse land uses in the project area, and the traffic noise levels would not result in a substantial increase in noise. As a result, consideration of noise abatement is not required for these land uses.

On-road vehicles are typically not considered to be significant sources of ground vibration that would cause structural damage or increased levels of annoyance to nearby land uses. As a result, long-term operational activities associated with the proposed project would not involve the use of any equipment or processes that would result in potentially adverse levels of ground vibration. No long-term vibration impacts would occur with implementation of the proposed Build Alternative. Ground-borne vibration impacts associated with the proposed Build Alternative would be primarily associated with short-term construction-related activities discussed above.

Thus, as discussed above, the only location where traffic noise would exceed respective Noise Abatement Criteria, and thus, would require consideration for noise abatement, is the Wine Country Recreational Vehicle Resort (Category C campground, park, and recreation land use); future worst hour noise levels with the project at this location would range from 60 to 69 A-weighted decibels equivalent sound level (Noise Abatement Criteria is 67 A-weighted decibels equivalent sound level).

Avoidance, Minimization, and/or Noise Abatement Measures

Refer to Section 2.1.12, Cultural Resources, for avoidance and minimization measures Cultural Resources-2 through Cultural Resources-4, which would require vibration monitoring in regard to construction near the Johnson House.

Noise abatement is considered where noise impacts are predicted in areas of frequent human use that would benefit from a lowered noise level. Predicted design-year traffic noise levels at the outdoor activity areas of the Wine Country Recreational Vehicle Resort (located northeast of the State Route 46

and Airport Road intersection) would exceed the applicable Noise Abatement Criteria for campground, park, and recreation land uses of 67 A-weighted decibels equivalent sound level. As a result, consideration of noise abatement is required for this land use.

A Noise Abatement Decision Report was prepared for the project to assess the reasonableness and feasibility of noise abatement at the Wine Country Recreational Vehicle Resort. The outdoor areas of frequent human use at Wine Country Recreational Vehicle Resort are shielded by an existing 6-foot noise barrier referred to as Noise Barrier Westbound-1. Traffic noise levels at the outdoor activity areas of the Wine Country Recreational Vehicle Resort are largely influenced by vehicle traffic on State Route 46.

Noise Barrier Westbound-1 (existing noise barrier not constructed by Caltrans) is along the southern perimeter and the southeastern and southwestern corners of the Wine Country Recreational Vehicle Resort property. Noise Barrier Westbound-1 would not be sufficient to reduce future project exterior traffic noise levels to applicable Noise Abatement Criteria of 67 A-weighted decibels equivalent sound level. The Noise Abatement Decision Report evaluated the potential demolition of the existing noise barrier and construction of Noise Barrier Westbound-2 from post miles 32.261 to 32.386. Noise Barrier Westbound-2 was evaluated along the southwestern corner of the Wine Country Recreational Vehicle Resort property and would have extended east along the southern border of the property. The considered length of Noise Barrier Westbound-2 was 773 linear feet, and barrier heights of 8 to 16 feet were evaluated. Additional considerations included the ability of a given barrier and height to meet the Caltrans design goal of a 7 A-weighted decibel noise reduction and if the barrier breaks the line of sight between an 11.5-foot truck stack and the “first row” of receptors. The line of sight break is important to reduce visual and noise intrusiveness of truck exhaust stacks at first-row receptors. In the case of the Wine Country Recreational Vehicle Resort, the first row of receptors is considered the row of mobile homes situated adjacent to the existing Noise Barrier Westbound-1 that runs parallel to the northerly side of State Route 46.

Table 2.46 shows a summary of the barrier evaluation and key information for the noise abatement decision, including the number of benefited receptors, total reasonable allowance, and estimated construction cost for the barrier. The number of receptors is rounded up to the nearest whole number per the protocol. The Noise Study Report analyzed barrier heights of 6 feet to 16 feet for each location.

Noise Barrier Westbound-2 would both achieve the design goal of a 7 A-weighted decibel reduction and break the line of sight between an 11.5-foot truck stack and first-row receptors starting at a barrier height of 12 feet. As such, a 12-foot barrier would be the least expensive wall that would meet the feasible criteria. While a 12-foot barrier would benefit three receptors with a

reasonable allowance of $321,000, the estimated construction cost would be $1,793,360, which is greater than the reasonable cost allowance. Therefore, Noise Barrier Westbound-2 would not meet the reasonable cost criteria and is not recommended. For this reason, although traffic noise impacts would occur in both the No Build and Build Alternative, there are no abatement measures that are feasible and reasonable.

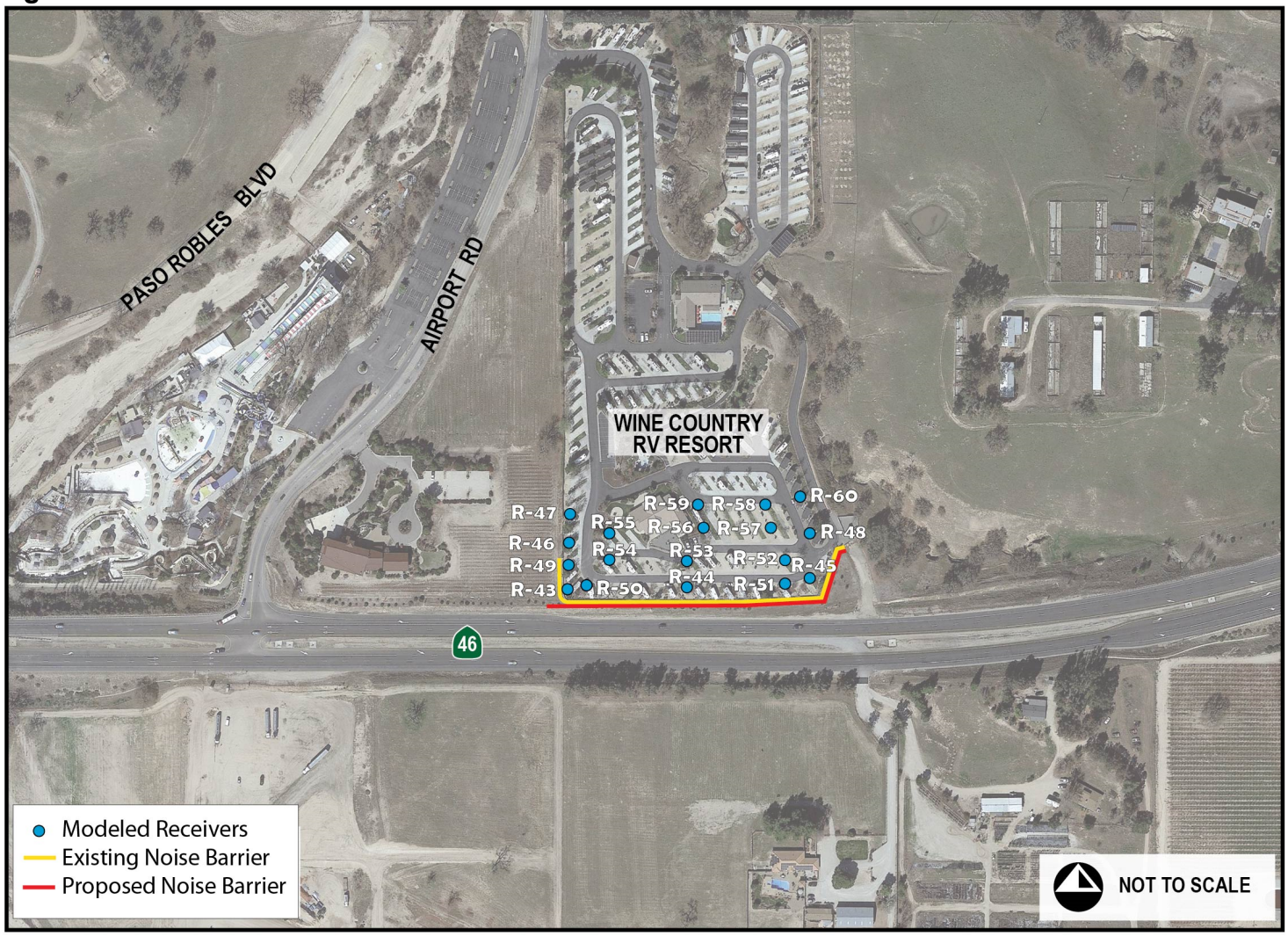
Beyond avoidance and minimization measures Cultural Resources-2 through Cultural Resources-4, no avoidance, minimization, and/or mitigation measures would be required.

Table 2.46 Summary of Abatement Key Information for Noise Barrier Westbound-2 (Wine Country Estates)

Height (Feet)	Acoustically Feasible?	Number of Benefited Receptors	Design Goal Achieved?	Reasonable Allowance per Residence	Total Reasonable Allowance	Estimated Construction Cost	Cost Less Than Allowance
6	No	0	No	$107,000	$0	Not Applicable	Not Applicable
8	No	0	No	$107,000	$0	Not Applicable	Not Applicable
10	Yes	2	No	$107,000	$214,000	$1,368,210	No
12	Yes	3	Yes	$107,000	$321,000	$1,793,360	No
14	Yes	5	Yes	$107,000	$535,000	$2,009,800	No
16	Yes	6	Yes	$107,000	$642,000	$2,295,810	No

Source: Terry A. Hayes and Associates, Noise Abatement Decision Report, April 2021.

Figure 2-32 Evaluated Noise Barriers



2.2.8 Energy

Regulatory Setting

The National Environmental Policy Act (42 U.S. Code Part 4332) requires the identification of all potentially significant impacts to the environment, including energy impacts.

The California Environmental Quality Act Guidelines Section 15126.2(b) and Appendix F, Energy Conservation, require an analysis of a project's energy use to determine if the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources.

Affected Environment

This section is partially based on the State Route 46 East/Union Road Intersection Improvements Air Quality Report (October 2022) and State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Analysis Report (June 2019).

In the context of transportation, direct energy use involves all energy consumed by vehicle propulsion (for example, automobiles, trains, and airplanes). This energy consumption is a function of traffic characteristics such as vehicle miles traveled, speed, vehicle mix, and thermal value of the fuel being used. Energy in a resource context generally pertains to the use or conservation of fossil fuels, which are finite resources. In addition, direct energy also includes the one-time energy expenditure involved in constructing a project.

Indirect energy includes maintenance activities which would result in long-term indirect energy consumption by equipment required to operate and maintain the proposed roadway improvements.

The primary source of direct energy consumption within the project area is fuel consumption due to vehicles along State Route 46 and other roadways. State Route 46 is a major interregional and important freight route that connects the Central Coast with the San Joaquin Valley. State Route 46 runs east-west from State Route 1 (State Route 1) in San Luis Obispo County to State Route 99 in Kern County in Caltrans District 6 jurisdiction. The route has the highest traffic demand of any east-west travel corridor between the Pacheco Pass (State Route 152) to the north and the greater Los Angeles freeway system to the south. State Route 46 is a heavily used corridor for weekend travel between the Central Valley and the coast, particularly during the summer.

Per Caltrans' 2016 count data publications, within the project study area, the State Route 46 segment entering Paso Robles limits carries an annual average daily traffic of approximately 24,500 vehicles per day with a seasonal

peak month demand of 29,000 vehicles per day. Per 2016 Caltrans truck traffic count data, over 4,400 trucks per day (or approximately 18 percent of the daily vehicular traffic volume) traversed the State Route 46 mainline segment through the study area.

Within the project area, there are also traffic signals and pole-mounted street lighting that consume electricity, resulting in direct energy use.

Currently, indirect energy consumption within the project area occurs via routine long-term roadway maintenance activities (for example, street sweeping, pavement repairs, and restriping).

Environmental Consequences

When balancing energy used during construction and operations against energy saved by enhancing transportation efficiencies, the project would not have substantial energy impacts.

No-Build Alternative

No impacts regarding energy consumption would occur with the implementation of the No-Build Alternative since no construction activity would occur with this alternative. However, under the No-Build Alternative, the improvements at State Route 46 East (State Route 46)/Union Road intersection would not be implemented, and excessive delays and poor operations would be expected in the project area. Under the No-Build Alternative, access to, from, along, and across State Route 46 at/through the Union Road intersection would not be improved. Additionally, bicycle and pedestrian accessibility and connectivity would not be improved. These conditions would contribute to inefficient energy consumption because vehicles would use higher amounts of fuel while idling in stop-and-go traffic or moving at slow speeds along congested roadways. Thus, the resultant savings in fuel consumption anticipated under the Build Alternative would not occur with the No-Build Alternative.

The No-Build Alternative would not be consistent with regional and local policies because there would be no decrease in traffic delays, and operational, mobility, and travel-time conditions in the project study area would continue to worsen, thus contributing to inefficiencies in energy consumption.

Build Alternative (Phases 1 and 2)

Direct energy use from construction sources under the Build Alternative is the energy that is consumed during construction activities by vehicles and equipment. Project construction would result in short-term energy consumption of primarily diesel fuel through the operation of heavy-duty equipment and commercial trucks for material deliveries and debris hauling. Gasoline would be consumed during workers' vehicle trips to and from the

construction site. Project construction would also involve the use of on-road gasoline vehicles as construction workers travel to and from the site. Construction activities are expected to take approximately 48 months in total; 24 months for Phase 1 and 24 months for Phase 2. This type of energy consumption would represent a nominal demand on local and regional fuel supplies and would be temporary and cease once construction is complete. The demand for fuel would have no noticeable effect on peak or baseline demands for energy. Although construction would result in a short-term increase in energy use, project construction would be required to comply with Caltrans' Standard Specifications (Caltrans 2018). Implementation of the following standard practices, some of which may also be required for other purposes, such as reducing air quality impacts, would help conserve energy during construction activities:

- Properly tune and maintain construction equipment and vehicles. Use low-sulfur fuel in all construction equipment as provided in California Code of Regulations Title 17, Section 93114.
- Extended idling of diesel equipment would be prohibited to the extent feasible.
- Route and schedule construction traffic to avoid peak travel times as much as possible to reduce congestion and related air quality impacts caused by idling vehicles along local roads.

Thus, construction-related energy consumption anticipated under the Build Alternative would not result in the inefficient, wasteful, or unnecessary consumption of energy, and energy consumption would stop once project construction is complete.

With regard to long-term operations, the Build Alternative is expected to result in a beneficial impact since it would improve access to, from, along, and across State Route 46 at the Union Road intersection, reduce delays, and improve reliability and operations in the vicinity of the intersections of State Route 46/Union Road and State Route 46/Airport Road, thus resulting in a reduction in direct energy use. As noted in Section 2.1.1, Existing and Future Land Use, the project would be consistent with various regional long-range transportation plans that promote and maximize efficiencies for vehicular travel, use of alternative modes of transportation, reducing delays, shortening commute times, and increasing vehicle fuel efficiency. These planning documents include the San Luis Obispo Council of Governments' 2019 Regional Transportation Plan: Regional Transportation Plan Connecting Communities, the San Luis Obispo Council of Governments' 2021 Federal Transportation Improvement Program, and the State Route 46 Corridor System Management Plan. The proposed Build Alternative is specifically identified in the 2019 Regional Transportation Plan and Federal Transportation Improvement Program and is identified as a key component of the State Route 46 Corridor System Management Plan.

Indirect energy use is the energy that is consumed during maintaining the facility and vehicles using the facility. Indirect energy use may also include peripheral energy effects, which include the use of energy sources that are not used by the transportation system itself, but rather energy used as a result of changes in land use, population density, or transportation patterns that are induced by the project, which would affect the energy demand, supply, and distribution within the surrounding area. However, because the project area is already urbanized and located along an existing transportation corridor, the project would not be expected to induce substantial changes in land use, population density, or transportation patterns that would increase energy demand, supply, or distribution.

Adverse impacts related to energy consumption would not occur as part of the Build Alternative.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures would be required.

2.3 Biological Environment

2.3.1 Natural Communities

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species section (Section 2.3.5). Wetlands and other waters are also discussed below in the Wetlands and Other Waters section (Section 2.3.2).

Affected Environment

This section is based upon the Natural Environment Study prepared for the project, dated May 2023.

For this analysis, a Biological Study Area was established for the project. The Biological Study Area is comprised of the ground disturbing limits associated with Phases 1 and 2 of the project, with an additional surrounding 200-foot buffer.

Existing Conditions

A survey of existing natural communities within the Biological Study Area was conducted as part of the Natural Environment Study. A literature review was conducted on June 8, 2021, that included a records search of the California Natural Diversity Database to identify recorded special-status species and habitats. The U.S. Fish and Wildlife Service Information for Planning and Consultation species list was obtained from the Ventura Fish and Wildlife Office in May 2023. Biological surveys occurred on October 24 and 25, 2018, and April 6 and 7, 2021, to assess the biological resources within the Biological Study Area, map vegetative communities on and next to the Biological Study Area, and evaluate the potential suitability of those communities for special-status species identified in the literature review.

Nine vegetation communities and land cover types were seen during the field survey within the Biological Study Area; refer to Table 2.47, Existing Vegetation Communities and Land Cover. These vegetation communities are described in detail below.

Table 2.47 Existing Vegetation Communities and Land Cover

Vegetation Types and Other Areas in the Biological Study Area	Existing Acre(s)
California Annual Grassland (Annual Grassland)	88.78
Cropland	6.71
Developed/Existing Roadway	127.33
Ephemeral Creek (Huer Huero Creek)	1.80
Eucalyptus Woodland	1.32
Oak Woodland	1.20
Ruderal	17.47
Seasonal Wetland	0.02
Valley-Foothill Riparian	2.30
Total	**246.93**

Source: Hunting Environmental, Natural Environment Study, May 2023.

California Annual Grassland Series (Annual Grassland)

Annual grassland was identified throughout most of the Biological Study Area, encompassing approximately 88.78 acres of the Biological Study Area. The annual grasslands are typically dominated by non-native grasses. Typically, species found within the annual grassland community include introduced grasses, such as Italian ryegrass (*Lolium multiflorum*), ripgut brome (*Bromus diandrus*), medusa-head (*Taeniatherum caputmedusae*), wild oat (*Avena fatua*), Mediterranean barley (*Hordeum marinum*), foxtail barley (*Hordeum murinum*), Bermuda grass (*Cynodon dactylon*), and soft-chess brome (*Bromus hordeaceus*). Common forbs seen within these grasslands include mustards (*Brassica* subspecies), filarees (*Erodium* subspecies), vetch (*Vicia* subspecies), field bindweed (*Convolvulus arvensis*), dove weed (*Croton*

setigerus), Italian thistle (*Carduus pynocephalus*), yellow star-thistle (*Centaurea solstitialis*) and dove's-foot geranium (*Geranium molle*). According to the Natural Environment Study prepared for this project, multiple wildlife species use annual grasslands for foraging; however, some require special habitat features, such as cliffs, caves, ponds, or habitats with woody plants for breeding, resting, and cover. Characteristic reptiles that breed in annual grasslands include the western fence lizard (*Sceloporus occidentalis*) and common garter snake (*Thamnophis sirtalis*). Mammals typically found in this habitat include the black-tailed jackrabbit (*Lepus californicus*), California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), western harvest mouse (*Reithrodontomys megalotis*), California vole (*Microtus californicus*), and coyote (*Canis latrans*). Birds known to breed in annual grasslands include horned lark (*Eremophila alpestris*) and western meadowlark (*Sturnella neglecta*). The annual grassland habitat also provides important foraging habitat for turkey vultures (*Cathartes aura*) and raptor species.

The Natural Environment Study indicates that a portion of the annual grasslands within the Biological Study Area is occupied by nodding needlegrass grassland (approximately 0.05 acre). This nodding needlegrass grassland has been identified in the Natural Environment Study as a natural community of special concern. Natural communities of special concern are habitats that have been determined by natural resource agencies, such as the California Department of Fish and Wildlife, to be sensitive or rare.

Cropland

Two small areas of croplands exist within the Biological Study Area, for a total of 6.71 acres. Many species of rodents and birds have adapted to croplands and are controlled by fencing, trapping, and poisoning to prevent excessive crop losses. Deer, elk, antelope, and wild pigs forage in alfalfa and grain fields and can cause depredation problems. Pheasants introduced to the cropland habitat have experienced recent population declines owing to changes in crop patterns and cultural practices for growing small grains. Changes include clean farming, double cropping, and chemical control of rice diseases and pests rather than leaving land fallow in alternate years. Except for insectivores, raptors, doves, and pheasants, avian wildlife that becomes numerous and uses crops before they are harvested is generally not welcome by growers. Wildlife, such as waterfowl, sandhill cranes, and other species that use waste grains after harvest, are usually not discouraged.

Developed/Existing Roadway

Developed/existing roadway areas occupy approximately 127.33 acres of the Biological Study Area. These areas are characterized by the presence of both native and exotic species maintained in a relatively static composition within a downtown, residential, or suburban setting.

Because of the high degree of disturbance in urban areas, they generally have low habitat value for wildlife; however, migratory birds may find limited nesting and foraging opportunities in trees and shrubs scattered throughout urban areas. Wildlife adapted to living in heavily urbanized areas include the common raccoon (*Procyon lator*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), black rat (*Rattus rattus*), American crow (*Corvus brachyrhyncos*), mourning dove (*Zenaida macroura*), house finch (*Carpodacus mexicanus*), cliff swallow (*Hirundo pyrrhonota*), Northern mockingbird (*Mimus polyglottus*), and common ground dove (*Columbina passerina*).

Ephemeral Creek (Huer Huero Creek)

The Huer Huero watershed is in the eastern portion of San Luis Obispo's North County region. The Huer Huero Creek is an ephemeral underground stream that flows directly to the Salinas River. The headwaters occur in the Coast Ranges, south of Creston, and reach elevations of approximately 3,312 feet. The confluence of the Huer Huero with the Salinas River occurs in Paso Robles. An ephemeral stream has flowing water for only a short duration after precipitation events in a normal year. The beds of ephemeral streams are above the water table year-round; therefore, groundwater is not a source of water for these features, and runoff from rainfall and snowmelt are the primary water sources.

Huer Huero Creek flows north-south through the Biological Study Area and occupies 1.80 acres of the Biological Study Area. Due to the short hydroperiod, the vegetation within ephemeral streams in the Biological Study Area is characteristic of the surrounding community types. Many of these features are scoured, unvegetated channels; small poison oak or blackberry was seen in the channel. Oak trees (*Quercus* species) and some cottonwoods (*Populus* species) are next to the channel.

The Natural Environment Study indicates that this ephemeral creek associated with Huer Huero Creek has been identified as a natural community of special concern.

Eucalyptus Woodland

The Eucalyptus woodland vegetation community encompasses approximately 1.32 acres of the Biological Study Area and was originally planted as a windbreak. Eucalyptus woodlands generally adjoin several other wildlife habitats and are found at low elevations, where freezing is not a problem. Most eucalyptus woodlands have been artificially established, usually in and around urban/rural areas. Characteristic species of this habitat include crows, ravens (*Corvus corax*), barn owls (*Tyto alba*), red-tailed hawks (*Buteo jamaicensis*), and red-shouldered hawks (*Buteo lineatus*). Eucalyptus stands are important as roosts, perches, and nest sites for several bird species, particularly raptors. Eucalypti with stringy bark or a tendency for rapid

deposition of litter create microhabitats for several small vertebrate species, including alligator lizards (*Elgaria multicarinata*) and Pacific gopher snakes (*Pituophis catenifer catenifer*).

Oak Woodland

The Oak woodlands vegetation community encompasses 1.20 acres of the Biological Study Area and has been planted along a fence line. Oak woodlands provide habitat for a variety of wildlife species. A variety of species are known to use oaks in some way, including quail (*Callipepla californica*), turkeys (*Meleagris californica*), California ground squirrels, and black-tailed mule deer (*Odocoileus hemionus*). These species may be so dependent on acorns in fall and early winter that a poor acorn year can result in significant declines in their populations.

Ruderal

Ruderal vegetation communities encompass approximately 17.47 acres of the Biological Study Area. Ruderal communities occur in areas of disturbance, such as along roadsides, trails, and parking lots, and are found near urban or developed habitats. These communities are subjected to ongoing or past disturbances (for example, vehicle activities and mowing). Ruderal habitat in these disturbed areas supports a diverse weedy flora. Weedy plants found in ruderal land cover types include yellow star-thistle, filaree, ripgut brome, soft brome, horehound, and other invasive weeds. The ruderal habitat associated with the project is primarily associated with roadways and nearby private rural residences. Due to the rural nature of the project area, wildlife species typical of nearby vegetative communities would also be associated with the ruderal habitat type.

Seasonal Wetland

Seasonal wetlands are areas that are ephemerally wet because of the accumulation of surface water and rainwater within depressional areas. Plant species found in the seasonal wetland within the Biological Study Area include popcorn flower (*Plagiobothrys stipitatus*), annual ryegrass (*Festuca perennis*), and Mediterranean barley (*Hordeum marinum*).

Seasonal wetlands provide cover and water for various bird species, mammals, reptiles, and amphibians. Many wildlife species are dependent on wetland habitats for foraging, nesting, and cover. Several passerines or songbirds may also forage in wetland habitats. The 0.02-acre seasonal wetland within the Biological Study Area was observed during the biological surveys to be dry. The limited size and depth of the 0.02-acre seasonal wetland feature in the Biological Study Area limit the functions of this wetland. The wetland was completely dry during the site visit conducted on April 7, 2021. The Natural Environment Study indicates that this seasonal wetland area has been identified as a natural community of special concern.

Valley-Foothill Riparian

The Valley-Foothill Riparian habitat encompasses approximately 2.30 acres of the Biological Study Area. Valley-foothill riparian habitats provide food, water, migration and dispersal corridors, and escape, nesting, and thermal cover for an abundance of wildlife. At least 50 amphibians and reptiles occur in lowland riparian systems. Many are permanent residents; others are transient or temporal visitors. Dominant species in the canopy layer in the Biological Study Area include cottonwood (*Populus fremontii*), California sycamore (*Plantanus racemosa*), and valley oak (*Quercus lobata*). Subcanopy trees are white alder (*Alnus rhombifolia*) and Oregon ash (*Fraxinus latifolia*). Typical understory shrub layer plants include wild rose (*Rosa californica*), Himalayan blackberry (*Rubus armeniacus*), and willows (*Salix* subspecies). The Natural Environment Study indicates that valley-foothill riparian habitat has been identified as a natural community of special concern.

Habitat Connectivity

Habitat linkages are key features for wildlife movement between habitat patches. Wildlife corridors are generally defined as those areas that provide opportunities for individuals or local populations to conduct seasonal migrations, permanent dispersals, or daily commutes. Linkages generally refer to broader areas that provide movement opportunities for multiple keystone/focal species or allow for the propagation of ecological processes (for example, for the movement of pollinators), often between areas of conserved land. The California Department of Fish and Wildlife Biogeographic Information and Observation System was reviewed to determine if the Biological Study Area is within an Essential Connectivity Area. According to the Natural Environment Study prepared for this project, the Biological Study Area is not within an Essential Connectivity Area. However, Huer Huero Creek does provide a north-south local movement corridor under State Route 46 for wildlife species.

Environmental Consequences

Direct permanent impacts occur where project components replace land cover (project footprint). Temporary direct impacts occur 20 feet outside of the permanent impacts and are usually caused by construction equipment staging and movement. Temporary direct impacts can be restored.

Temporary Impacts

No-Build Alternative

No transportation improvements would occur under the No-Build Alternative; therefore, the No-Build Alternative would not impact natural communities.

Build Alternative (Phases 1 and 2)

As shown in Table 2.48, Land Cover Impacts, the Build Alternative would result in temporary impacts to all natural communities and land cover types within the Biological Study Area, except for the seasonal wetland. As described above, Huer Huero Creek (an ephemeral creek), valley-foothill riparian habitat, a seasonal wetland area, and an existing nodding needlegrass grassland (*Nassella cernua*) are within the Biological Study Area and were identified as natural communities of special concern. As shown in Table 2.49, Impacts to Natural Communities of Special Concern, while the Build Alternative would not result in temporary impacts to the seasonal wetlands within the Biological Study Area, the Build Alternative would result in temporary impacts to Huer Huero Creek, valley-foothill riparian habitat, and nodding needlegrass grassland.

Avoidance and minimization measures would be implemented to reduce temporary impacts to the natural communities of concern within the Biological Study Area. Construction operations and the stockpiling of portable equipment, vehicles, and supplies would be restricted to designated staging areas (avoidance and minimization measure Natural Communities-1). As discussed in Section 2.3.6, Invasive Species, adherence to guidelines involving invasive plant species prevention would be required (avoidance and minimization measure Invasive Species-1). All exposed or temporary disturbance areas that have barren vegetation would be restored postconstruction (avoidance and minimization measure Natural Communities-2).

Table 2.48 Land Cover Impacts

Vegetation Community	Permanent Impact Area	Temporary Impact Area	Total Direct Impact Area
Annual Grassland (nodding needlegrass grassland occurs as an inclusion)	46.29	3.23 acres	49.52 acres
Cropland	6.54	0.08 acre	6.62 acres
Ephemeral Creek (Huer Huero Creek)	192 square feet	1,600 square feet	1,792 square feet
Eucalyptus Woodland	0.18 acre	0.09 acre	0.27 acre
Oak Woodland	1.08 acre	0.05 acre	1.13 acre
Ruderal	6.2 acre	3.83 acre	10.03 acre
Seasonal Wetland	0.02 acre	0.00 acre	0.02 acre
Valley-Foothill Riparian	0.95 acre	0.14 acre	1.09 acre

Source: Hunting Environmental, Natural Environment Study, May 2023.

Table 2.49 Impacts to Natural Communities of Special Concern

Natural Communities of Special Concern	Permanent Impact Area	Temporary Impact Area
Ephemeral Creek (Huer Huero Creek) (below ordinary high water mark)	192 square feet	1,600 square feet
Valley-Foothill Riparian	0.95 acre	0.14 acre
Nodding Needlegrass Grassland	0.00 acre	0.05 acre
Seasonal Wetland	0.02 acre	0.00 acre

Source: Hunting Environmental, Natural Environment Study, May 2023.

Protective temporary large sediment barriers would be installed between Huer Huero Creek and the construction limits to prevent accidental disturbance and protect water quality within the creek (avoidance and minimization measure Natural Communities-3). Lastly, all construction workers would receive worker environmental awareness training before work starts (avoidance and minimization measure Natural Communities-4).

As discussed above, Huer Huero Creek provides a north-south local movement corridor under State Route 46. Construction activities could negatively affect the use of this corridor. However, impacts would be temporary and would not result in significant adverse effects to the corridor. With the implementation of avoidance and minimization measures Natural Communities-3 and Natural Communities-4, effects related to existing habitat connectivity corridors within the Biological Study Area would not be adverse.

Permanent Impacts

No-Build Alternative

No transportation improvements would occur under the No-Build Alternative; therefore, the No-Build Alternative would not result in permanent impacts on natural communities.

Build Alternatives (Phases 1 and 2)

As shown in Table 2.49, the Build Alternative would result in permanent impacts to 192 square feet of Huer Huero Creek, 0.95 acre of permanent impacts to valley-foothill riparian habitat, and 0.02 acre of permanent impacts to seasonal wetland within the Biological Study Area. The Build Alternative would not result in permanent impacts to nodding needlegrass grassland.

The Build Alternative would also involve widening the existing Huer Huero Creek Bridge Overcrossing that crosses over Huer Huero Creek. According to the Natural Environment Study, the proposed widening of Huer Huero Creek Bridge would include installing pier walls and abutments that would permanently displace 192 square feet of the ephemeral creek's streambed. Before construction, the necessary permits for potential impacts to Huer

Huero Creek would be obtained. These impacts, and associated regulatory permits, are further described in Section 2.3.2, Wetlands and Other Waters.

Additionally, in-stream construction work would occur during the driest time based on the annual forecast (historically, Huer Huero Creek rarely flows between June through November). The work window would be limited to June 1 through October; however, deviation from this schedule may be allowed with approval from the California Department of Fish and Wildlife and other resource agencies (avoidance and minimization measure Natural Communities-5). Best Management Practices would be implemented onsite to prevent degradation to onsite and offsite Waters of the U.S. (avoidance and minimization measure Natural Communities-6). With the implementation of avoidance and minimization measures Natural Communities-5 and Natural Communities-6, effects related to natural communities of special concern would not be adverse.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures would be implemented to protect natural communities. Additionally, the avoidance and minimization measure identified in Section 2.3.6, Invasive Species-1, would further protect natural communities. No compensatory mitigation would be required.

- **Natural Communities-1:** Construction operations, stockpiling construction materials, portable equipment, vehicles, and supplies would be restricted to the designated construction staging areas, and all operations would be confined to the minimal area necessary.
- **Natural Communities-2:** All exposed/disturbed and temporary disturbance areas and access points left barren of vegetation as a result of construction activities would be restored to the land cover removed using locally native grass seeds and plugs or other native plant species consistent with the habitat that has been disturbed (that is, oak trees and associated forbs for temporary impacts to oak woodland). Seeded areas would be covered with broadcast straw and/or jute netted (monofilament erosion blankets are not permitted). A Restoration and Monitoring Plan for these areas would be prepared and submitted to Caltrans and the California Department of Fish and Wildlife for approval and implemented within 1 year of project completion. Success standards would be set. There would be a minimum 5-year monitoring term based upon success standards achievement.
- **Natural Communities-3:** Protective temporary large sediment barriers would be installed between Huer Huero Creek and the construction area limits to prevent accidental disturbance during construction and to protect water quality within the aquatic habitats during construction.
- **Natural Communities-4:** A Worker Environmental Awareness Program would be implemented to educate construction workers about the

presence of sensitive habitats and special-status species near the project area and to instruct them on proper avoidance measures.

- **Natural Communities-5:** In-stream work would be expected to occur during the driest time based on the annual forecast. Information from the Creston U.S. Geological Survey downstream gauge indicates that historically, Huer Huero Creek rarely flows from June through November. Per Caltrans recommendations, the work window would be limited to June 1 through October; however, deviation from this schedule may be allowed with approval from the California Department of Fish and Wildlife and other regulatory agencies. For construction activities that require dewatering areas, such activities would be timed with awareness of precipitation forecasts and likely increases in water flows and flood stages. Construction activities next to Huer Huero Creek would stop before storm events until all reasonable erosion control measures have been implemented. Construction equipment and material would be removed from the floodplain if inundation is likely. Revegetation, restoration, and erosion control work would not be confined to this time period.
- **Natural Communities-6:** Before the start of construction activities within jurisdictional features, Construction Best Management Practices would be used onsite to prevent degradation to onsite and offsite Waters of the U.S. Methods would include the use of appropriate measures to intercept and capture sediment before entering jurisdictional features, as well as erosion control measures along the perimeter of all work areas to prevent the displacement of fill material. All Best Management Practices would be in place before the start of any construction activities and would remain until construction activities are completed. All erosion control methods would be maintained until all onsite soils are stabilized.

2.3.2 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (33 U.S. Code 1344), is the primary law regulating wetlands and surface waters. One purpose of the Clean Water Act is to regulate the discharge of dredged or fill material into Waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over nontidal water bodies extend to the ordinary high water mark in the absence of adjacent wetlands. When adjacent wetlands are present, Clean Water Act jurisdiction extends beyond the ordinary high water mark to the limits of the adjacent wetlands. To classify wetlands, for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be

present under normal circumstances for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers, with oversight by the U.S. Environmental Protection Agency.

The U.S. Army Corps of Engineers issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effects. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of the U.S. Army Corps of Engineers' Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the U.S. Army Corps of Engineers' decision to approve is based on compliance with U.S. Environmental Protection Agency's Section 404(b)(1) Guidelines (40 Code of Federal Regulations 230) and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines were developed by the U.S. Environmental Protection Agency, in conjunction with the U.S. Army Corps of Engineers, and allow the discharge of dredged or fill material into the aquatic system (Waters of the U.S.) only if there is no practicable alternative that would have less adverse effects. Section 404 (b)(1) Guidelines state that the U.S. Army Corps of Engineers may not issue a permit if there is a "least environmentally damaging practicable alternative" to the proposed discharge that would have lesser effects on Waters of the U.S. and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands also regulates the activities of federal agencies with regard to wetlands. Essentially, the executive order for the Protection of Wetlands states that a federal agency, such as the Federal Highway Administration and/or the California Department of Fish and Wildlife, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board, the Regional Water Quality Control Boards, and the California Department of Fish and Wildlife. In certain circumstances,

the California Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Wildlife before beginning construction. If the California Department of Fish and Wildlife determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required. California Department of Fish and Wildlife jurisdictional limits are usually defined by the tops of the stream or lake banks or the outer edge of riparian vegetation, whichever is wider. Wetlands under the jurisdiction of the U.S. Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the California Department of Fish and Wildlife.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements and may be required even when the discharge is already permitted or exempt under the Clean Water Act. In compliance with Section 401 of the Clean Water Act, the Regional Water Quality Control Boards also issue water quality certifications for activities that may result in a discharge to Waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Water Quality section for more details.

Affected Environment

This section is based upon the Natural Environment Study prepared for the project dated May 2023, which included the preparation of a Wetland Delineation dated February 2022. The Wetland Delineation was prepared to support the Preliminary Jurisdictional Delineation that will be submitted to the U.S. Army Corps of Engineers for review and approval for a Section 404 Nationwide Permit Number 10 during the project's Plans, Estimates, and Specifications phase. For this analysis, a Biological Study Area was established for the project. The Biological Study Area is comprised of a 200-foot buffer of the ground disturbing limits for Phases 1 and 2 of the project combined.

Methodology

A literature review of the Biological Study Area was conducted to determine watershed characteristics and the locations/types of aquatic resources that may be present in the project area. Color aerial photographs were reviewed, as well as the Natural Resources Conservation Service Web Soil Survey and the U.S. Department of Agriculture's National Hydric Soils List for California. Additional databases from the U.S. Department of Agriculture and Natural Resources Conservation Service were also reviewed. Biological surveys were

conducted on October 24, 2018, and again on April 7 and 8, 2021. Offsite analysis (100 percent visual assessment with binoculars) was conducted as part of the field investigations.

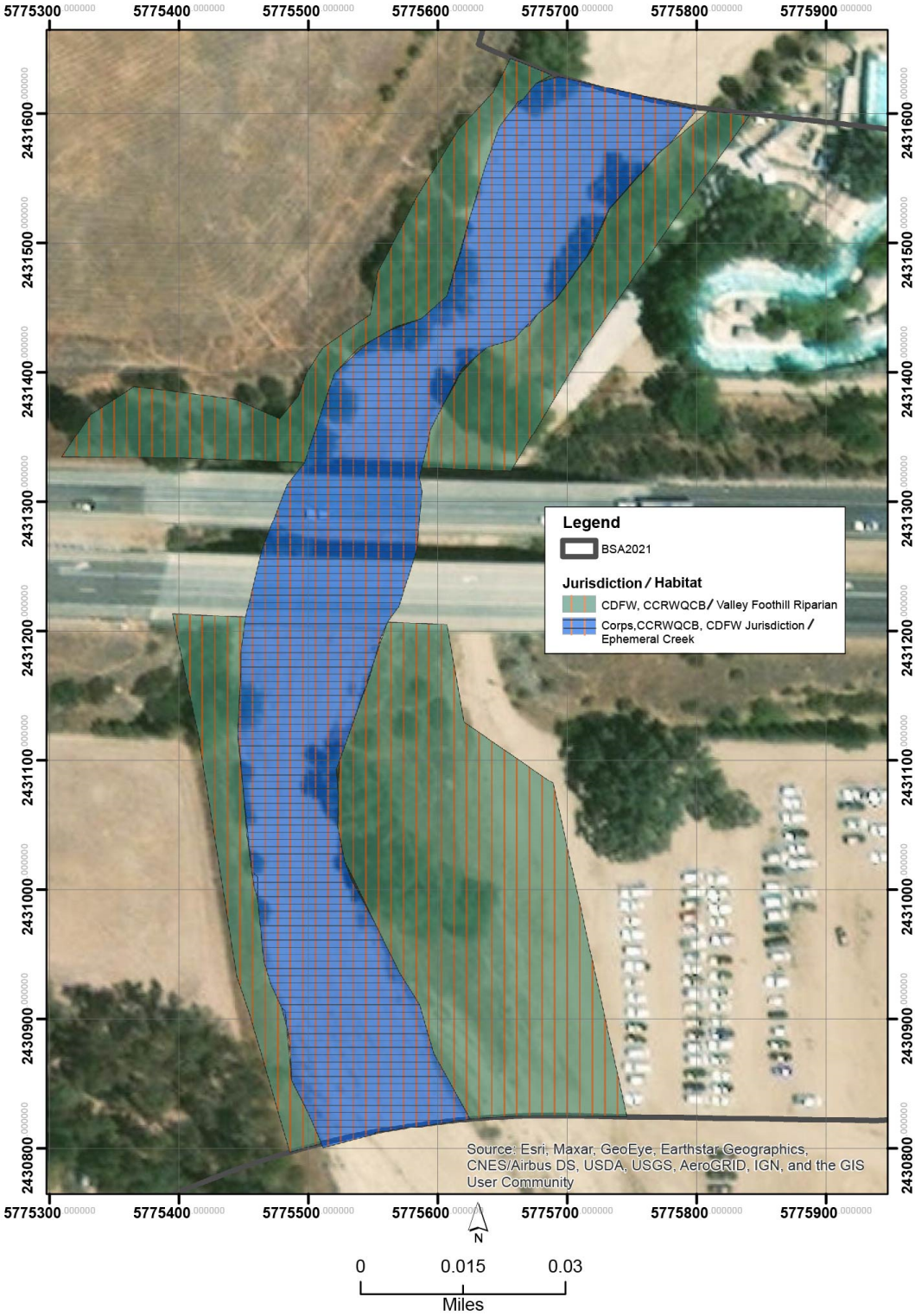
The wetland delineation was conducted using the “Routine Determination Method,” as described in the U.S. Army Corps of Engineers Wetland Delineation Manual, in conjunction with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region and A Field Guide to the Identification of the ordinary high water mark in the Arid West Region of the western U.S. Site photos were used as supplemental guidance.

Three positive wetland parameters must normally be present for an area to meet wetland criteria: 1) dominance of wetland vegetation; 2) presence of hydric soils; and 3) presence of wetland hydrology. The presence or absence of positive indicators for wetland vegetation and soils and hydrology were assessed at two points: one inside the observed wetland boundary and one outside the observed wetland boundary. If three positive wetland indicators were not seen at the first data point, it was determined there was no wetland feature present, and no second data point was evaluated.

Existing Conditions

According to the Wetland Delineation, there are two jurisdictional features present in the Biological Study Area: Huer Huero Creek and a seasonal wetland area. These features are described in further detail below and shown in Figure 2-33, Wetland Delineation.

Figure 2-33 Wetland Delineation



Huer Huero Creek is an ephemeral creek that flows north to south in the Biological Study Area and eventually flows into the Salinas River downstream. Based on the Wetland Delineation prepared for this project, Huer Huero Creek is determined to be a “Waters of the U.S.," “Waters of the State," and California Department of Fish and Wildlife regulated stream.

Evidence of an ordinary high water mark was seen at Huer Huero Creek during field delineation. The total acreage of the jurisdiction in the Biological Study Area was determined to be: 1.87 acres under the jurisdiction of Waters of the U.S., based on the ordinary high water mark; 4.11 acres under the jurisdiction of the California Department of Fish and Wildlife; 4.12 acres under the jurisdiction of the Regional Water Quality Control Board; and 0.02 acre of seasonal wetland. The length of the feature in the Biological Study Area is 893 feet; refer to Table 2.50, Summary of Jurisdictional Waters within the Biological Study Area.

A small seasonal wetland was identified in the southern portion of the Biological Study Area. Based on the Wetland Delineation prepared for this project, the seasonal wetland is determined to be Waters of the U.S. and Waters of the State. Plant species found in the seasonal wetland within the Biological Study Area include popcorn flower (*Plagiobothrys stipitatus*), annual ryegrass (*Festuca perennis*), and Mediterranean barley (*Hordeum marinum*). As shown in Table 2.50, the total acreage of this feature in the Biological Study Area was determined to be 0.02 acre of U.S. Army Corps of Engineers and Regional Water Quality Control Board jurisdiction.

Table 2.50 Summary of Jurisdictional Waters Within the Biological Study Area

Aquatic Feature	Jurisdiction	Length in Biological Study Area	Total Area in Biological Study Area by Jurisdiction	Location (Decimal Latitude/Longitude)
Ephemeral Creek (Huer Huero Creek)	Waters of the U.S. (ordinary high water mark)	893 feet	1.87 acres	35.644, 120.646
Ephemeral Creek (Huer Huero Creek)	California Department of Fish and Wildlife	893 feet	4.11 acres	35.644, 120.646
Ephemeral Creek (Huer Huero Creek)	Regional Water Quality Control Board	893 feet	4.11 acres	35.644, 120.646
Seasonal Wetland	U.S. Army Corps of Engineers and Regional Water Quality Control Board	Not Applicable	0.02 acre	35.644, 120.654

Source: Hunting Environmental, Wetland Delineation, February 2022.

Environmental Consequences

The 2014 Project Study Report/Project Development Support evaluated five project alternatives: 1) no-build, 2) signal-controlled intersection, 3) roundabout-controlled intersection, 4) overcrossing only, and 5) full interchange. Of these five alternatives, the no-build, overcrossing only, and full interchange were carried forward for a detailed evaluation in the Project Approval/Environmental Document phase of the project. The signal-controlled intersection and roundabout-controlled intersection alternatives were eliminated from further discussion because of design constraints, right-of-way acquisition, and the alternatives did not fully meet the purpose and need of the project. Refer to Section 1.6, Alternatives Considered but Eliminated from Further Discussion, which further describes the reason Alternatives 2 and 3 were withdrawn and not carried forward for further analysis in the environmental document.

No-Build Alternative

Project improvements would not occur under the No-Build Alternative; therefore, the No-Build Alternative would not impact wetlands and other waters.

Build Alternative (Phases 1 and 2)

The project would widen the Huer Huero Creek Bridge crossings. This proposed structure widening would be a cast-in-place prestressed concrete box girder with a 5-foot, 3-inch structure depth. The three-span widening would be supported on open-end seat-type abutments and 4-by-12-foot pier walls. The substructure would be consistent with the adjacent creek bridge and conducive to the hydrology of the creek.

Huer Huero Creek and the seasonal wetland seen within the Biological Study Area are considered to be Waters of the U.S. and Waters of the State and are subject to regulation by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife. As discussed in Section 2.3.1, Natural Communities, the Build Alternative would temporarily impact 1,600 square feet and permanently impact 192 square feet of Huer Huero Creek due to the installation of the pier walls and abutments. The Build Alternative would permanently impact 0.02 acre of the seasonal wetland (with no temporary impacts). As noted above in Section 2.3.1, Natural Communities, avoidance and minimization measures Natural Communities-1 through Natural Communities-7 would be implemented to reduce temporary and permanent impacts to Huer Huero Creek and the seasonal wetland.

The Build Alternative would be subject to the following permits/approvals before impacts to jurisdictional features:

- Clean Water Act Section 404 Nationwide Permit Number 10 from the U.S. Army Corps of Engineers;
- Clean Water Act Section 401 Permit from the Regional Water Quality Control Board; and
- 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife.

In addition, through the regulatory permitting process with the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife, the Build Alternative would be subject to compensatory mitigation to mitigate impacts to jurisdictional waters, riparian habitat, and seasonal wetland. As described in the Natural Environment Study, onsite restoration is the preferred mitigation. This action would begin with the preparation of a restoration plan that would lead to the restoration of Huer Huero Creek and associated foothill riparian land cover at a 3-to-1 ratio, restoring 576 square feet of Huer Huero Creek and 2.18 acres of associated valley foothill riparian land cover. The final plan would be agreed upon by concerned agencies before implementation. The plan would identify postconstruction native plantings with annual monitoring schedule and performance criteria; refer to compensatory mitigation measure Wetlands and Other Waters-1. Impacts related to the seasonal wetland would be subject to compensatory mitigation through the protection in perpetuity of 0.04 acre of seasonal wetland (2 acres for each acre impacted. For 1.02 acre of impacts, 0.04 acre would be preserved) through payment into a U.S. Army Corps of Engineers/Regional Water Quality Control Board-approved in-lieu fee program (consistent with 33 Code of Federal Regulations Part 332) or other acceptable programs or onsite restoration, where agencies allow; refer to compensatory mitigation measure Wetlands and Other Waters-2. With the implementation of compensatory mitigation measures Wetlands and Other Waters-1 and Wetlands and Other Waters-2, effects related to wetlands and other waters would not be adverse.

Avoidance, Minimization, and/or Mitigation Measures

Refer to Section 2.3.1, Natural Communities, for Avoidance and Minimization Measures Natural Communities-1 through Natural Communities-7, which would avoid and minimize impacts to wetlands. The following compensatory mitigation measures would be implemented to protect wetlands and other waters.

- **Wetlands and Other Waters-1:** For impacts to Huer Huero Creek and associated foothill riparian land cover, compensatory mitigation at a 3-to-1 ratio may be required by the California Department of Fish and Wildlife as a part of the Section 1602 Lake and Streambed Alteration Agreement process. Onsite restoration is the preferred mitigation. This action would begin with the preparation of a restoration plan that would lead to the restoration of 576 square feet of Huer Huero Creek and 3.27 acres of

associated valley foothill riparian land cover. All temporary impacts (0.14 acre of foothill riparian land cover) will be restored at a 1-to-1 ratio. The final plan would be agreed upon by concerned agencies before implementation. The plan would identify postconstruction native plantings with an annual monitoring schedule and performance criteria.

- **Wetlands and Other Waters-2:** For impacts related to the seasonal wetland, protection in perpetuity would be provided for 0.02 acre of impacts to the seasonal wetland (0.046 acre of preservation) through payment into a U.S. Army Corps of Engineers/Regional Water Quality Control Board-approved in-lieu fee program (consistent with 33 CFR Part 332) or other acceptable programs or onsite restoration, where agencies allow.

2.3.3 Plant Species

Regulatory Setting

The U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife have regulatory responsibility for the protection of special-status plant species. Special-status species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act and/or the California Endangered Species Act. Please see Section 2.3.5, Threatened and Endangered Species, in this document for detailed information about these species.

This section of the document discusses all other special-status plant species, including California Department of Fish and Wildlife species of special concern and U.S. Fish and Wildlife Service candidate species, and California Native Plant Society rare and endangered plants.

The regulatory requirements for Federal Endangered Species Act can be found in 16 U.S. Code Section 1531 and so forth. See also 50 Code of Federal Regulations Part 402. The regulatory requirements for the California Endangered Species Act can be found in California Fish and Game Code, Section 2050, and so forth. Department projects are also subject to the Native Plant Protection Act in California Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act in California Public Resources Code, Sections 21000-21177.

Affected Environment

This section is based upon the Natural Environment Study prepared for the project, dated May 2023. For this analysis, a Biological Study Area was established for the project. The Biological Study Area is comprised of the

ground disturbing limits associated with Phases 1 and 2 of the project, with an additional surrounding 200-foot buffer.

Methodology

A list of special-status species and habitats that have the potential to occur within the Biological Study Area or project vicinity was prepared using information obtained from the U.S. Fish and Wildlife Service Information for Planning and Conservation, the U.S. Fish and Wildlife Service Critical Habitat Portal, the California Department of Fish and Wildlife California Natural Diversity Database, and the California Native Plant Society Inventory of Rare and Endangered Plants of California.

A search of the California Natural Diversity Database was performed on June 8, 2021, for the Paso Robles, Bradley, San Miguel, Ranchito Canyon, Estrella, Adelaida, York Mountain, Templeton, and Creston U.S. Geological Survey 7.5-minute quadrangles to identify special-status species. This search provided a list of processed and unprocessed occurrences of special-status species identified within the aforementioned U.S. Geological Survey quadrangles. The U.S. Fish and Wildlife Service Information for Planning and Conservation was consulted on June 17, 2022, to identify potential federally listed species that may be present in the Biological Study Area. In addition, a query of the U.S. Fish and Wildlife Service's Critical Habitat Portal was conducted on June 17, 2022, to identify any designated critical habitat on or in the vicinity of the Biological Study Area. The California Native Plant Society database was also queried in June 2021 to identify special-status plant species with the potential to occur in the aforementioned U.S. Geological Survey quadrangles.

A biological survey of the Biological Study Area was conducted on October 24 and 25, 2018, and April 6 and 7, 2021, to assess the biological resources that may be impacted as part of the proposed project, map vegetative communities on and next to the Biological Study Area, and evaluate the potential suitability of those communities for special-status species returned in the literature review.

Existing Conditions

Based on the Natural Environment Study prepared for the project, a total of 27 special-status plant species were identified during the California Natural Diversity Database, California Native Plant Society, and Information for Planning and Conservation records search as potentially occurring special-status plant species in the Biological Study Area. As shown in Table 2.51, Potentially Occurring Special-Status Plant Species, seven special-status plant species were identified as having the potential to occur within the Biological Study Area. These species are discussed further below, along with a discussion of the extent of known and/or potential habitat within the Biological Study Area.

The Biological Study Area contains suitable habitat for seven special-status plant species identified through the California Native Plant Society literature search provided as part of the Natural Environment Study: Dwarf calycadenia (*Calycadenia villosa*), San Luis Obispo owl's-clover (*Castilleja densiflora* subspecies *obispoensis*), Lemmon's jewelflower (*Caulanthus lemmonii*), woodland woolythreads (*Monolopia gracilens*), shining navarretia (*Navarretia nigelliformis* subspecies *radians*), hooked popcorn flower (*Plagiobothrys uncinatus*), and elegant buckwheat (*Eriogonum elegans*). None of these species are State or federally listed.

A buckwheat (*Eriogonum* species) with basal rosettes that looks very similar to those of elegant buckwheat (*Eriogonum elegans*), a California Rare Plant Rank List 4.3 species, was observed in the dry creek bed of Huer Huero Creek but specific identification could not be made due to lack of inflorescences.

California Rare Plant Rank 4.3 represents species that are:

- Uncommon in California—Plants of limited distribution, a watch list. These plants are of limited distribution or infrequent throughout a broader area in California, and their status should be monitored regularly. Should the degree of endangerment or rarity of a California Rare Plant Rank 4 plant change, the California Native Plant Society will transfer it to a more appropriate rank; and
- Not very threatened in California—Less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known.

Given the California Rare Plant Rank, project impacts to elegant buckwheat, if present, would not affect the population.

There is one known occurrence of Lemmon's jewelflower east of the Biological Study Area. There are over 20 California Natural Diversity Database occurrences for shining navarretia within 1.5 miles south/southeast of the Biological Study Area. There is one occurrence of San Luis Obispo owl's clover 1 mile north of the Biological Study Area. Occurrences for the other three rare plants are at least 5 miles west of the Biological Study Area.

A floristic inventory was conducted on April 7 and 8, 2021, to identify and map any special-status plants present within the Biological Study Area. The inventory was accomplished by walking meandering transects throughout the Biological Study Area to ensure full coverage. Based on this floristic inventory, none of the aforementioned species or any other special-status plant species were detected within the Biological Study Area.

Table 2.51 Potentially Occurring Special-Status Plant Species

Common Name	Scientific Name	Status	California Native Plant Society Rare Plant Rank	Habitat	Habitat Present/ Absent	Rationale
Bristlecone fir	*Abies bracteata*	Not Applicable	1B.3	Rocky, broad-leaved upland forest, chaparral, lower montane coniferous forest, riparian woodland. Elevation: 600 to 5,250 feet (183 to 1,600 meters). Blooms: Not Applicable.	Habitat Absent	Bristlecone fir was not detected during surveys. This species is only in the Santa Lucia Mountains, which are 86 miles away from the Biological Study Area. Therefore, it was determined that the Bristlecone fir would not occur in the project action area.
Carmel Valley malacothrix	*Malacothrix saxatilis var. arachnoidea*	Not Applicable	1B.2	Chaparral (rocky), coastal scrub. Elevation: 82 to 3,399 feet (25 to 1,036 meters). Blooms: March to December.	Habitat Absent	Carmel Valley malacothrix was not detected during surveys. Chaparral (rocky) and coastal scrub habitats are not present in the Biological Study Area. The closest recorded occurrence is 46 miles north of the project vicinity. Therefore, it was determined that the Carmel Valley malacothrix would not occur in the project action area.

Common Name	Scientific Name	Status	California Native Plant Society Rare Plant Rank	Habitat	Habitat Present/ Absent	Rationale
Davidson's bush-mallow	*Malacothamnus davidsonii*	Not Applicable	1B.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland. Elevation: 607 to 2,805 feet (185 to 855 meters). Blooms: June to January.	Habitat Absent	Davidson's bush-mallow was not detected during surveys. Chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats are not present in the Biological Study Area. The closest recorded occurrence is 17 miles northwest of the project vicinity. Therefore, it was determined that Davidson's bush-mallow would not occur in the project action area.
Dwarf calycadenia	*Calycadenia villosa*	Not Applicable	1B.1	Rocky, fine soils, chaparral, cismontane woodland, meadows and seeps, and valley and foothill grassland. Elevation: 787 to 4,429 feet (240 to 1,350 meters). Blooms: May to October.	Habitat Present	Dwarf calycadenia was not detected during surveys. Valley and foothill grasslands provide suitable habitat for this species. The closest recorded occurrence is 7.5 miles northwest of the project vicinity. Therefore, it was determined that the Dwarf calycadenia would likely not occur in the project action area.

Common Name	Scientific Name	Status	California Native Plant Society Rare Plant Rank	Habitat	Habitat Present/ Absent	Rationale
Elegant buckwheat	*Eriogonum elegans*	Not Applicable	4.3	Cismontane woodland and valley and foothill grassland in gravelly, sandy, and wash microhabitats. Elevation: 655 to 5,005 feet (200 to 1,525 meters). Blooms: May to November.	Habitat Present	Valley and foothill grassland in gravelly, sandy, and wash microhabitats in the Biological Study Area may provide habitat. A buckwheat species was detected in the Biological Study Area but could not be identified. The closest known location is northeast in the Huer Huero Creek north of Wisteria Lane. Therefore, the elegant buckwheat has the potential to occur in the project area.
Hardham's evening-primrose	*Camissoniopsis hardhamiae*	Not Applicable	1B.2	Sandy, decomposed carbonate, chaparral, cismontane woodland. Elevation: 460 to 3,100 feet (140 to 945 meters). Blooms: March to May.	Habitat Absent	Hardham's evening-primrose was not detected during surveys. Sandy, decomposed carbonate, chaparral, and cismontane woodland habitats are not present in the Biological Study Area. The closest recorded occurrence is 14 miles north of the project vicinity. Therefore, it was determined that Hardham's evening-primrose would not occur in the project action area.

Common Name	Scientific Name	Status	California Native Plant Society Rare Plant Rank	Habitat	Habitat Present/ Absent	Rationale
Hooked popcornflower	*Plagiobothrys uncinatus*	Not Applicable	1B.2	Chaparral (sandy), cismontane woodland, and valley and foothill grassland. Elevation: 984 to 2,493 feet (300 to 760 meters). Blooms: April to May.	Habitat Present	Annual grasslands provide suitable habitat for this species. However, hooked popcornflower was not detected during surveys. The closest recorded occurrence is 18 miles west of the project vicinity. Therefore, it was determined that the hooked popcornflower would likely not occur in the project action area.
Indian Valley spineflower	*Aristocapsa insignis*	Not Applicable	1B.2	Cismontane woodland (sandy). Elevation: 985 to 1,969 feet (300 to 600 meters). Blooms: May to September.	Habitat Absent	Indian Valley spineflower was not detected during surveys. Cismontane woodland habitat is not present in the Biological Study Area. The closest recorded occurrence is 12 miles north of the project vicinity. Therefore, it was determined that Elegant buckwheat in the Indian Valley spineflower would not occur in the project action area.

Common Name	Scientific Name	Status	California Native Plant Society Rare Plant Rank	Habitat	Habitat Present/ Absent	Rationale
Jared's peppergrass	*Lepidium jaredii* subspecies *jaredii*	Not Applicable	1B.2	Known to occur only at Carrizo Plain or Devil's Den. Valley and foothill grassland (alkaline, adobe). Elevation: 1,099 to 3,297 feet (335 to 1,005 meters). Blooms: March to May.	Habitat Absent	Jared's peppergrass was not detected during surveys. The Biological Study Area is outside the current range for this species. The closest recorded occurrence is 44 miles northwest of the project vicinity. Therefore, it was determined that Jared's peppergrass would not occur in the project action area.
Kellogg's horkelia	*Horkelia cuneata var. sericea*	Not Applicable	1B.1	Sandy or gravelly, openings, closed-cone coniferous forest, chaparral (maritime), coastal dunes, coastal scrub. Elevation: 33 to 656 feet (10 to 200 meters). Blooms: April to September.	Habitat Absent	Kellogg's horkelia was not detected during surveys. Sandy or gravelly openings, closed-cone coniferous forests, chaparral (maritime), coastal dunes, and coastal scrub habitats are not present in the Biological Study Area. The closest recorded occurrence is 24 miles southwest of the project vicinity. Therefore, it was determined that Kellogg's horkelia would not occur in the project action area.

Common Name	Scientific Name	Status	California Native Plant Society Rare Plant Rank	Habitat	Habitat Present/ Absent	Rationale
Koch's cord moss	*Entosthodon kochii*	Not Applicable	1B.3	Cismontane woodland (soil). Elevation: 590 to 3,280 feet (180 to 1,000 meters). Blooms: Not Available	Habitat Absent	Koch's cord moss was not detected during surveys. Cismontane woodland habitat is not present in the Biological Study Area. The closest recorded occurrence is 61 miles northwest of the project vicinity. Therefore, it was determined that the Koch's cord moss would not occur in the project action area.
La Panza mariposa lily	*Calochortus simulans*	Not Applicable	1B.3	Sandy, often granitic, sometimes serpentinite, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland Elevation: 1,247 to 3,773 feet (380 to 1,150 meters). Blooms: April to June.	Habitat Absent	La Panza mariposa lily was not detected during surveys. The Biological Study Area is below the elevational range for this species. The closest recorded occurrence is 11 miles southeast of the project vicinity. Therefore, it was determined that the La Panza mariposa lily would not occur in the project action area.

Common Name	Scientific Name	Status	California Native Plant Society Rare Plant Rank	Habitat	Habitat Present/ Absent	Rationale
Lemmon's jewelflower	*Caulanthus lemmonii*	Not Applicable	1B.2	Pinyon and juniper woodland and valley and foothill grassland. Elevation: 262 to 5,184 feet (80 to 1,580 meters). Blooms: February to May.	Habitat Present	Valley and foothill grasslands provide suitable habitat for this species. This species is known to occur in the vicinity of the Biological Study Area. Two recorded occurrences were within 2 miles of the project vicinity. However, Lemmon's jewelflower was not detected during surveys. Therefore, it was determined that Lemmon's jewelflower would likely not occur in the project action area.
Mesa horkelia	*Horkelia cuneate var. puberula*	Not Applicable	1B.1	Sandy or gravelly, chaparral (maritime), cismontane woodland, coastal scrub. Elevation: 230 to 2,657 feet (70 to 810 meters). Blooms: February to September.	Habitat Absent	Mesa horkelia was not detected during surveys. Sandy or gravelly, chaparral (maritime), cismontane woodland, and coastal scrub habitats are not present in the Biological Study Area. The closest recorded occurrence is 7 miles southwest of the project vicinity. Therefore, it was determined that the Mesa horkelia would not occur in the project action area.

Common Name	Scientific Name	Status	California Native Plant Society Rare Plant Rank	Habitat	Habitat Present/ Absent	Rationale
Oregon meconella	*Meconella oregana*	Not Applicable	1.B.1	Coastal prairie, coastal shrub. Elevation. 820 to 2,067 feet (250 to 630 meters). Blooms: March to April.	Habitat Absent	Oregon meconella was not detected during surveys. Coastal prairie and coastal shrub habitats are not present in the Biological Study Area. The closest recorded occurrence is 13 miles southwest of the project vicinity. Therefore, it was determined that Oregon meconella would not occur in the project action area.
Pale-yellow layia	*Layia heterotricha*	Not Applicable	1B.1	Requires alkaline or clay soils in cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland. Elevation: 984 to 5,594 feet (300 to 1,705 meters) Blooms: March to June.	Habitat Absent	Pale-yellow layia was not detected during surveys. The Biological Study Area does not contain suitable soils for this species. The closest recorded occurrence is 17 miles northwest of the project vicinity. Therefore, it was determined that the Pale-yellow layia would not occur in the project action area.

Common Name	Scientific Name	Status	California Native Plant Society Rare Plant Rank	Habitat	Habitat Present/ Absent	Rationale
Prostrate vernal pool navarretia	*Navarretia prostrata*	Not Applicable	1B.1	Mesic, coastal scrub, meadows, seeps (alkaline), and vernal pools. Elevation: 10 to 3,970 feet (3 to 1,210 meters). Blooms: April to July.	Habitat Absent	Prostrate vernal pool navarretia was not detected during surveys. Mesic, coastal scrub, meadows, seeps (alkaline), and vernal pool habitats are not present in the Biological Study Area. The closest recorded occurrence is 12 miles northwest of the project vicinity. Therefore, it was determined that the prostrate vernal pool navarretia would not occur in the project action area.
San Luis Obispo owl's-clover	*Castilleja densiflora var. obispoensis*	Not Applicable	1B.2	Sometimes serpentinite, meadows and seeps, valley and foothill grassland. Elevation: 33 to 1,411 feet (10 to 430 meters). Blooms: March to May.	Habitat Present	Valley and foothill grasslands provide suitable habitat for this species. There are known occurrences in the vicinity of the Biological Study Area. The closest recorded occurrence is within 2 miles of the project vicinity. However, San Luis Obispo owl's-clover was not detected during surveys. Therefore, it was determined that the San Luis Obispo owl's-clover would likely not occur in the project action area.

Common Name	Scientific Name	Status	California Native Plant Society Rare Plant Rank	Habitat	Habitat Present/ Absent	Rationale
Santa Cruz microseris	*Stebbinsoseris decipiens*	Not Applicable	1B.2	Chaparral, coastal prairie, coastal scrub, and closed-cone coniferous forest. Elevation: 33 to 1,640 feet (10 to 500 meters). Blooms: April to May.	Habitat Absent	Santa Cruz microseris was not detected during surveys. Chaparral, coastal prairie, coastal scrub, and closed-cone coniferous forest habitats are not present in the Biological Study Area. The closest recorded occurrence is 13 miles northwest of the project vicinity. Therefore, it was determined that the Santa Cruz microseris would not occur in the project action area.
Santa Lucia dwarf rush	*Juncus luciensis*	Not Applicable	1B.2	Chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, vernal pools. Elevation: 984 to 6,693 feet (300 to 2,040 meters). Blooms: April to July.	Habitat Absent	Chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pool habitats are not present in the Biological Study Area. The closest recorded occurrence is 5 miles southeast of the project vicinity. However, the Santa Lucia dwarf rush was not detected during surveys. Therefore, it was determined that the Santa Lucia dwarf rush would likely not occur in the project action area.

Common Name	Scientific Name	Status	California Native Plant Society Rare Plant Rank	Habitat	Habitat Present/ Absent	Rationale
Santa Cruz mountains pussypaws	*Calyptridium parryi*	Not Applicable	1B.1	Cismontane woodland. Elevation: 1,000 to 5,020 feet (305 to 1,530 meters). Blooms: May to August.	Habitat Absent	Santa Cruz Mountains pussypaws was not detected during surveys. Cismontane woodland habitats are not present in the Biological Study Area. The closest recorded occurrence is 130 miles northwest of the project vicinity. Therefore, it was determined that the Santa Cruz mountains pussypaws would not occur in the project action area.
Shining navarretia	*Navarretia nigelliformis subspecies radians*	Not Applicable	1B.2	Sometimes clay, cismontane woodland, valley and foothill grassland, and vernal pools. Elevation: 250 to 3,280 feet (76 to 1,000 meters). Blooms: April to July.	Habitat Present	Valley and foothill grasslands provide suitable habitat for this species. There are multiple known occurrences in the project vicinity. However, shining navarretia spineflower was not detected during surveys. Therefore, it was determined that the shining navarretia would likely not occur in the project action area.

Common Name	Scientific Name	Status	California Native Plant Society Rare Plant Rank	Habitat	Habitat Present/ Absent	Rationale
Straight-awned spineflower	*Chorizanthe rectispina*	Not Applicable	1B.3	Chaparral, cismontane woodland, coastal scrub. Elevation: 279 to 3,396 feet (85 to 1,035 meters). Blooms: April to July.	Habitat Absent	Straight-awned spineflower was not detected during surveys. Chaparral, cismontane woodland, and coastal scrub habitats are not present in the Biological Study Area. The closest recorded occurrence is 12 miles northwest of the project vicinity. Therefore, it was determined that the Straight-awned spineflower would not occur in the project action area.
Umbrella larkspur	*Delphinium umbraculorum*	Not Applicable	1B.3	Chaparral, cismontane woodland. Elevation: 1,312 to 5,250 feet (400 to 600 meters). Blooms: April to June.	Habitat Absent	Umbrella larkspur was not detected during surveys. The Biological Study Area is below the elevational range for this species, and suitable habitat is not present. The closest recorded occurrence is 11 miles southwest of the project vicinity. Therefore, it was determined that the Umbrella would not occur in the project action area.

Common Name	Scientific Name	Status	California Native Plant Society Rare Plant Rank	Habitat	Habitat Present/ Absent	Rationale
Woodland woolythreads	*Monolopia gracilens*	Not Applicable	1B.2	Serpentine, broad-leaved upland forest (openings), chaparral (openings), cismontane woodland, North Coast coniferous forest (openings), and valley and foothill grassland. Elevation: 328 to 3,937 feet (100 to 1,200 meters). Blooms: February to July.	Habitat Present	Valley and foothill grasslands provide suitable habitat for this species. The closest recorded occurrence is 3 miles northwest of the project vicinity. However, woodland woolythreads was not detected during surveys. Therefore, it was determined that the woodland woolythreads would likely not occur in the project action area.
Yellow-flowered eriastrum	*Eriastrum luteum*	Not Applicable	1B.2	Sandy or gravelly, broad-leaved upland forest, chaparral, cismontane woodland. Elevation: 951 to 3,280 feet (290 to 1,000 meters). Blooms: May to June.	Habitat Absent	Yellow-flowered eriastrum was not detected during surveys. Sandy or gravelly, broad-leaved upland forest, chaparral, and cismontane woodland habitats are not present in the Biological Study Area. The closest recorded occurrence is 7.5 miles northwest of the project vicinity. Therefore, it was determined that the Yellow-flowered eriastrum would not occur in the project action area.

Source: Hunting Environmental, Natural Environment Study, May 2023.

Environmental Consequences

Temporary Impacts

No-Build Alternative

No transportation improvements would occur under the No-Build Alternative; therefore, the No-Build Alternative would not impact plant species.

Build Alternatives (Phases 1 and 2)

As noted above, no special-status plant species were detected within the Biological Study Area during floristic surveys performed as part of the Natural Environment Study. Nonetheless, construction of both phases of the Build Alternative would occur over several years, and baseline conditions for special-status plant species within the Biological Study Area may change. During construction associated with Phase 1 and Phase 2 of the project, if special-status plant species are found to be present within the Biological Study Area, individuals may be directly impacted by trampling, compaction, or removal. These species are generally associated with annual grassland. Therefore, the project has the potential to result in temporary negative impacts to plant species, but these effects would not be significantly adverse.

Avoidance and minimization measures would be implemented to protect plant species from potential negative impacts. Focused surveys would be conducted to determine if any special-status species occur within the Biological Study Area before any vegetation removal or ground-disturbing activities (avoidance and minimization measure Plant Species-1). If special-status plant species are identified within the Biological Study Area but outside the project footprint, protective fencing and warning signs would be installed to warn construction personnel of their presence (avoidance and minimization measure Plant Species-2), and the identified plants would be avoided to the greatest extent possible (avoidance and minimization measure Plant Species-3).

Permanent Impacts

No-Build Alternative

Project improvements would not occur under the No-Build Alternative; therefore, the No-Build Alternative would not impact plant species.

Build Alternative (Phases 1 and 2)

As discussed above, no special-status plant species were detected within the Biological Study Area during floristic surveys performed as part of the Natural Environment Study. Nonetheless, construction of both phases of the Build Alternative would occur over several years, and baseline conditions for special-status plant species within the Biological Study Area may change. Therefore, the project has the potential to result in permanent negative impacts to plant species through the removal of species and habitat, but these effects would not be significantly adverse. Implementation of Measures

Plant Species-1, Plant Species-2, and Plant Species-3 would avoid and minimize the potential for impacts to special-status plants if they are detected in the future during the construction of Phases 1 and 2 of the Build Alternative.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures would be implemented to protect plant species.

- **Plant Species-1:** Before any vegetation removal or ground-disturbing activities, focused surveys would be conducted to determine if Dwarf calycadenia (*Calycadenia villosa*), San Luis Obispo owl's-clover (*Castilleja densiflora* subspecies *obispoensis*), Lemmon's jewelflower (*Caulanthus lemmonii*), woodland woolythreads (*Monolopia gracilens*), shining navarretia (*Navarretia nigelliformis* subspecies *radians*), and hooked popcornflower (*Plagiobothrys uncinatus*) occur within the Biological Study Area. Surveys would be conducted in accordance with California Department of Fish and Wildlife Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities. These guidelines require rare plant surveys to be conducted at the proper time of year when rare or endangered species are both "evident" and identifiable. Surveys would be scheduled to coincide with known blooming periods and/or during periods of physiological development that are necessary to identify the plant species of concern.
- **Plant Species-2:** If special-status plant species are identified within the Biological Study Area but outside the project footprint, then the identified plant(s) would be avoided by installing protective fencing and warning construction personnel of their presence.
- **Plant Species-3:** If any special-status plant species identified in Measure Plant Species-1 are identified in the Biological Study Area (Dwarf calycadenia [*Calycadenia villosa*], San Luis Obispo owl's-clover [*Castilleja densiflora* subspecies *obispoensis*], Lemmon's jewelflower [*Caulanthus lemmonii*], woodland woolythreads [*Monolopia gracilens*], shining navarretia [*Navarretia nigelliformis* subspecies *radians*], and hooked popcorn flower [*Plagiobothrys uncinatus*]), these plants would be avoided to the greatest extent possible. If impacts to special-status plant species within the Biological Study Area are unavoidable, the City of Paso Robles would contact the California Department of Fish and Wildlife at least 10 days before destruction to determine if the agency would like to salvage the special-status plant population (per the Native Plant Protection Act of 1977).

2.3.4 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service, and the California Department of Fish and Wildlife are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in the Threatened and Endangered Species Section (Section 2.3.5) below. All other special-status animal species are discussed here, including California Department of Fish and Wildlife fully protected species and species of special concern and U.S. Fish and Wildlife Service or National Marine Fisheries Service candidate species. This project is located outside of National Oceanic and Atmospheric Administration Fisheries Service jurisdiction, and no Essential Fish Habitat exists; therefore, a National Oceanic and Atmospheric Administration species list is not required, and no effects to National Oceanic and Atmospheric Administration species are anticipated.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 through 1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

Affected Environment

This section is based upon the Natural Environment Study prepared for the project, dated May 2023. For this analysis, a Biological Study Area was established for the project. The Biological Study Area is comprised of the ground disturbing limits associated with Phases 1 and 2 of the project, with an additional surrounding 200-foot buffer.

Methodology

A literature review and records search were conducted for special-status animal species potentially occurring on or within the vicinity of the Biological Study Area. A list of special-status species and habitats that have the potential to occur within the Biological Study Area was prepared using information obtained from the U.S. Fish and Wildlife Service Species Lists on

May 8, 2023, the U.S. Fish and Wildlife Service Critical Habitat Portal on May 8, 2023, and the California Department of Fish and Wildlife California Natural Diversity Database on May 30, 2023.

Biological surveys of the Biological Study Area were performed on October 24 and 25, 2018, and April 6 and 7, 2021, to assess the biological resources that may be impacted as part of the proposed project, map vegetative communities on and next to the Biological Study Area, and evaluate the potential suitability of those communities for special-status species returned in the literature review. Offsite analysis (100 percent visual assessment with binoculars) was conducted as part of the field investigations.

Existing Conditions

The literature and records search identified 22 special-status animal species (that are not listed or proposed for listing under the federal or state Endangered Species Act) that have the potential to occur in the vicinity of the Biological Study Area. These species are shown in Table 2.52 through Table 2.56. Of these 22 special-status species, the Natural Environment Study determined that the Biological Study Area does not provide suitable habitat for 13 of these species. The Biological Study Area does provide suitable habitat for nine of these species, which include the California legless lizard (*Anniella pulchra*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*), coast horned lizard (*Phrynosoma blainvilli*), golden eagle (*Aquila chrysaetos*), burrowing owl (*Athene cunicularia*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), western red bat (*Lasiurus blossevillii*), and American badger (*Taxidea taxus*). These species are further described below.

Table 2.52 Potentially Occurring Special-Status Animal Species-Fish

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
Monterey hitch, also known as Salinas hitch	*Lavinia exilicauda harengeus*	State Species of Special Concern	They are predominately found in small warm streams but are capable of thriving in larger colder streams with diverse conditions. They may occupy several different habitat types within a single drainage. Extreme tolerance includes temperatures ranging from 30 to 35 degrees Celsius and dissolved oxygen levels as low as one to two parts per million. In-stream location may vary depending on geography and predators.	Habitat Absent	Monterey hitch was not detected during surveys, and Huer Huero Creek is dry most of the year. The closest recorded occurrence is 7.5 miles northwest of the Biological Study Area. Therefore, it was determined that the Monterey hitch would not occur in the project action area. No further studies are required.

Source: Hunting Environmental, Natural Environment Study, May 2023.

Table 2.53 Potentially Occurring Special-Status Animal Species-Amphibians

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
Coast range newt	*Taricha torosa*	State Species of Special Concern	This species is found in wet forests, oak forests, and chaparral. In Southern California, drier chaparral and oak woodland are used.	Habitat Absent	Coast range newt was not detected during surveys. Appropriate habitat, including wet forests, oak forests, and chaparral, does not occur in the Biological Study Area. The closest recorded occurrence is 8 miles southwest of the Biological Study Area. Therefore, it was determined that would not occur in the project action area. No further studies are required.
Lesser slender salamander	*Batrachoseps minor*	State Species of Special Concern	Located only in the Black Mountain area of San Luis Obispo County along the Paso Robles, Santa Rita, and other old creeks. Rely on underground passages made by other animals or by other natural processes such as root decay or soil shrinkage. Thought that egg laying takes place unground or under/near a flat surface object. Remaining mostly unground during the dryer summer months and spending more time on the surface as the winter rains create a moist and favorable environment.	Habitat Absent	Lesser slender salamander was not detected during surveys. This species is not known to occur in the vicinity of the Biological Study Area or Huer Huero Creek. The closest recorded occurrence is 10 miles southeast of the Biological Study Area. Therefore, it was determined that the lesser slender salamander would not occur in the project action area. No further studies are required.

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
Western spadefoot toad	*Spea hammondii*	State Species of Special Concern	Occurs in open areas with sandy/gravelly soils, mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, foothills, and mountains. Grasslands (for aestivation) with shallow temporary pools (for breeding and metamorphosis) are optimal habitats for the western spadefoot. Successful transformation of larvae requires that temporary breeding pools must last for at least 30 days. If pools dry up before 30 days, larvae will not survive.	Habitat Absent	Western spadefoot toad was not detected during surveys. Aestivation habitat (uplands) usually occurs within 130 feet of breeding habitat. The single seasonal wetland feature in the Biological Study Area lacks the depth and volume to remain within perched water for 30 days. Species are unlikely to occur in the Biological Study Area. Therefore, it was determined that the western spadefoot toad would not occur in the project action area. No further studies are required.

Source: Hunting Environmental, Natural Environment Study, May 2023.

Table 2.54 Potentially Occurring Special-Status Animal Species-Reptiles

Common Name	Scientific Name	State	Habitat	Habitat Present/ Absent	Rationale
California legless lizard	*Anniella pulchra*	State Species of Special Concern	Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodland, desert scrub, sandy washes, and stream terraces.	Habitat Present	California legless lizard was not detected during surveys. The closest recorded occurrence is 36 miles northeast of the Biological Study Area. However, the Biological Study Area contains a sandy wash (Huer Huero Creek). California legless lizards may be present in work areas within and next to Huer Huero Creek.
Coast horned lizard	*Phrynosoma blainvilli*	State Species of Special Concern	Occurs in valley-foothill hardwood, conifer, pine-cypress, juniper, annual grassland, and riparian habitats. Lives in open country, especially sandy areas, washes, floodplains, and wind-blown deposits.	Habitat Present	Coast horned lizard was not detected during surveys. Annual grassland habitat and a sandy wash are present in the Biological Study Area. The closest recorded occurrence is 8.5 miles north of the Biological Study Area. Therefore, it was determined that the coast horned lizard could be present in the project action area.

Common Name	Scientific Name	State	Habitat	Habitat Present/ Absent	Rationale
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	State Species of Special Concern	Occurs in open, dry, treeless areas, including grassland and saltbush scrub. Takes refuge in rodent burrows and under shaded vegetation and surface objects.	Habitat Present	San Joaquin coachwhip was not detected during surveys. The closest recorded occurrence is 15 miles east of the Biological Study Area. However, annual grassland is present in the Biological Study Area. Therefore, it was determined that the San Joaquin coachwhip may be present in the project action area.
Western pond turtle	*Actinemys marmorata*	State Species of Special Concern	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, and either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater.	Habitat Absent	Western pond turtle was not detected during surveys. Aquatic habitats are not present in the Biological Study Area. Huer Huero Creek is dry most of the year. The nearest recorded occurrence is 1.7 miles southwest of the Biological Study Area. Therefore, it was determined that the western pond turtle would not occur in the project action area.

Source: Hunting Environmental, Natural Environment Study, May 2023.

Table 2.55 Potentially Occurring Special-Status Animal Species-Birds

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
Burrowing owl	*Athene cunicularia*	State Species of Special Concern	Nesting habitat includes open areas with mammal burrows, including rolling hills, grasslands, fallow fields, sparsely vegetated desert scrub, vacant lots, and human-disturbed lands. Soils must be friable for burrows.	Habitat Present	A burrowing owl was not detected during surveys. Suitable wintering foraging habitat is present in the Biological Study Area. The nearest known occurrence is 10 miles northwest of the Biological Study Area at Camp Roberts. Therefore, it was determined that the burrowing owl may be present in the project action area.
California spotted owl	*Strix occidentalis*	State Species of Special Concern	Forests and woodlands with large mature trees and snags containing a high basal area, dense canopy (greater than 70 percent) cover, multiple canopy layers, and downed woody debris.	Habitat Absent	California spotted owl was not detected during surveys. Forests and woodlands with large mature trees and snags are not present in the Biological Study Area. Recorded locations are not available to the public. Therefore, it was determined that the California spotted owl would not occur in the project action area.

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
Golden eagle	*Aquila chrysaetos*	State Fully Protected	Uncommon residents and migrants throughout California, except in the center of the Central Valley. Habitats typically include rolling foothills, mountain areas, sage-juniper flats, and deserts.	Foraging Habitat Present; Nesting Habitat Absent	Golden eagle was not detected during surveys. There is a known occurrence within two miles of the Biological Study Area. While this species may forage in the vicinity, nesting habitat is absent in the Biological Study Area. Therefore, it was determined that the golden eagle may be present in the project action area.
Long-eared owl	*Asio otus*	State Species of Special Concern	Riparian habitat required; also uses live oak thickets and other dense stands of trees. Found in dense conifer stands at high elevations.	Habitat Absent	The long-eared owl was not detected during surveys. There are no dense stands of trees in the Biological Study Area or vicinity. The nearest known occurrence is 53 miles southeast of the Biological Study Area. Therefore, it was determined that the long-eared owl would not occur in the project action area.

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
Northern harrier	*Circus cyaneus*	State Species of Special Concern	Nest on the ground in patches of dense, tall vegetation in undisturbed areas. Breed and forage in a variety of open habitats, such as marshes, wet meadows, weedy borders of lakes, rivers and streams, grasslands, pastures, croplands, sagebrush flats, and desert sinks.	Habitat Present	Northern harrier legless lizard was not detected during surveys. This species may forage in the Biological Study Area; however, nesting habitat is not present. The nearest known occurrence is 10 miles northwest of the Biological Study Area Therefore, it was determined that the northern harrier may be present in the project action area.
Tricolored blackbird	*Agelaius tricolor*	State Species of Special Concern	Nest in wetlands or in dense vegetation near open water. Dominant nesting substrates: cattails, bulrushes, blackberry, agricultural silage. Nesting substrate must either be flooded, spinous, or in some way defended against predators.	Habitat Absent	Tricolored blackbird was not detected during surveys. There are no wetlands or dense vegetation in the Biological Study Area or vicinity. The nearest known occurrence is 4 miles southeast of the Biological Study Area. Therefore, it was determined that the tricolored blackbird would not occur in the project action area.

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
White-tailed kite	*Elanus leucurus*	State Fully Protected	Occurs in herbaceous and open stages of valley lowland habitats, usually near agricultural land. Forages in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands. Nest placed near the top of dense oak, willow, or other tree stands; usually 6 to 20 meters (20 to 100 feet) above ground.	Habitat Present	White-tailed kite legless lizard was not detected during surveys. Suitable foraging habitat is present in the Biological Study Area, but nesting habitat is not. The nearest known occurrence is 18 miles southeast of the Biological Study Area. Therefore, it was determined that the white-tailed kite may be present in the project action area.
Yellow-breasted chat	*Icteria virens*	State Species of Special Concern	Nest in early successional riparian habitats with a well-developed shrub layer and an open canopy. Restricted to the narrow border of streams, creeks, sloughs, and rivers. Often nest in dense thicket plants such as blackberry and willow.	Habitat Absent	Yellow-breasted chat was not detected during surveys. There is no developed shrub layer or dense thickets of willow or blackberry in the Biological Study Area. The nearest known location is 80 miles northwest of the Biological Study Area. Therefore, it was determined that the yellow-breasted chat would not occur in the project action area.

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
Yellow warbler	*Setophaga petechial*	State Species of Special Concern	Dense riparian vegetation along streams and in wet meadows. Willow cover and Oregon ash are important predictors of abundance in Northern California.	Habitat Absent	The yellow warbler was not detected during surveys. There is no willow cover, wet meadows, or dense riparian habitat in the Biological Study Area. The nearest known occurrence is 50 miles southeast of the Biological Study Area. Therefore, it was determined that the yellow warbler would not occur in the project action area.

Source: Hunting Environmental, Natural Environment Study, May 2023.

Table 2.56 Potentially Occurring Special-Status Animal Species-Mammals

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
American badger	*Taxidea taxus*	State Species of Special Concern	Open shrub and forest and herbaceous habitats with friable soils. Associated with treeless regions, prairies, parklands, and cold desert areas. The range includes most of California, except the north coast.	Habitat Present	American badger was not detected during site surveys. The nearest known location is 5 miles southwest of the Biological Study Area. However, suitable habitat is present. Therefore, it was determined that the American badger may be present in the project action area.
Monterey dusky-footed woodrat	*Neotama macrotis Luciana*	State Species of Special Concern	Prefers moderate canopy in a variety of habitats. Prefers forest habitats with moderate canopy, year-round greenery, a brushy understory, and suitable nest-building materials. Houses are built of sticks and leaves at the base of or in a tree, around a shrub, or at the base of a hill.	Habitat Absent	Monterey dusky-footed woodrat was not detected during site surveys. Forest habitats with moderate canopy, year-round greenery, and a brushy understory are not present in the Biological Study Area. The nearest known location is 7 miles northwest of the Biological Study Area. Therefore, it was determined that the Monterey dusky-footed woodrat would not occur in the project action area.

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
Salinas pocket mouse	*Perognathus inornatus psammophilus*	State Species of Special Concern	The habitat relations of the silky pocket mice in the Central Valley region are not well known, in large part due to the extensive loss of its habitat to agricultural conversion early in this century. In general, the Salinas pocket mouse occurs in open grassland and desert-shrub communities on alluvial and wind-drifted sands.	Habitat Absent	Salinas pocket mouse was not detected during site surveys. Grassland and desert shrub communities on alluvial and wind-drifted sands are not present in the Biological Study Area. The nearest known location is 5 miles southwest of the Biological Study Area. Therefore, it was determined that the Salinas pocket mouse would not occur in the project action area.
Western red bat	*Lasiurus blossevillii*	State Species of Special Concern	Roosting habitat includes forests and woodlands, often in edge habitats next to streams, fields, or urban areas.	Habitat Present	A western red bat was not detected during site surveys. Annual grassland foraging habitat and roosting habitat are present in the Biological Study Area. The nearest known location is 50 miles southwest of the Biological Study Area. Therefore, it was determined that the western red bat may be present in the project action area.

Source: Hunting Environmental, Natural Environment Study, May 2023.

California Legless Lizard

The California legless lizard is a California species of special concern and prefers leaf litter and loose soil. It can be found in a broad array of vegetation communities, including sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamore, cottonwoods, or oaks. Sunny environments with sparse bushes and/or trees littered with leaves and stabilizing bush lupines and mock heather paint the picture of suitable habitat. They can often be found under surface objects such as rocks, boards, driftwood, and logs. They are also known to be found in suburban gardens in Southern California.

There has been one California Natural Diversity Database occurrence of the California legless lizard dated back to 1954 in the Biological Study Area. Although this occurrence is old, the annual grasslands provide suitable habitat for this species.

Coast Horned Lizard

The coast horned lizard is a California species of special concern. Typical vegetative associations include valley-foothill hardwood, conifer and riparian habitat, pine-cypress, juniper, and annual grassland. The current known distribution occurs in the Sierra Nevada foothills from Butte County, south to Kern County, and throughout the Central and Southern California coast. This species is typically found below 2,000 feet above mean sea level in the north and 3,000 feet above mean sea level in the south; however, the range may extend up to 4,000 feet above mean sea level in the Sierra Nevada foothills and 6,000 feet in the Southern California mountain ranges. Eggs are laid from May to June, hatching from August to September.

The closest occurrence of the coast horned lizard is approximately 9 miles north of the Biological Study Area. The annual grassland habitat provides suitable habitat for this species.

San Joaquin Coachwhip

The San Joaquin whipsnake is a California species of special concern. The species is known to be endemic to California, ranging from Arbuckle in the Sacramento Valley in Colusa County southward to the Grapevine in the Kern County portion of the San Joaquin Valley and westward into the inner South Coast Ranges. An isolated population occurs in the Sutter Buttes from about 66 feet to approximately 2,953 feet. It occurs in open, dry, treeless areas, including grassland and saltbush scrub. It takes refuge in rodent burrows and under shaded vegetation and surface objects. It is thought that the whipsnake breeds in May and lays eggs in early summer, which hatch in a 45-to-70-day time span.

The annual grasslands provide suitable habitat for San Joaquin coachwhip. However, the Biological Study Area is just outside the current range for this

species, and there are no known occurrences in the vicinity. While it is possible, it is unlikely for this species to be present.

Raptors and Other Migratory Birds

Various raptors and other nesting birds have the potential to forage and nest in the Biological Study Area. Golden eagle (*Aquila chrysaetos*), western burrowing owl (*Athene cunicularia*), white-tailed kite (*Elanus leucurus*), and northern harrier (*Circus cyaneus*) are all afforded additional protection from State laws. The golden eagle and white-tailed kite are California State fully protected species. The western burrowing owl and northern harrier are California State species of special concern. The nests of all raptors are protected under the Migratory Bird Treaty Act and Section 3503.5 of the California Fish and Game Code. The nests of all migratory birds are protected under the Migratory Bird Treaty Act, which makes it illegal to destroy any active migratory bird's nest.

The trees, shrubs, and grasslands in the Biological Study Area provide potential nesting and foraging habitat for raptors and migratory birds that occur in the region. In addition, ruderal areas provide suitable habitat for burrowing owls roosting and nesting.

Bat Species

Habitat for bat species consists of foraging habitat, night-roosting cover, maternity roost sites, and winter shelter (also known as hibernacula). These bat species may forage in a variety of habitats. In general, the California Department of Fish and Wildlife is most concerned about the loss of maternity roosting sites. Suitable roosting sites within these habitats include caves, rock crevices, cliffs, buildings, tree bark, and snags. Potential maternity- and night-roosting sites occur in dead trees, under bark, and in human structures (in other words, bridges) within the Biological Study Area. The Natural Environment Study notes that the western red bat (*Lasiurus blossevillii*, a California species of special concern) may roost in the bridge and/or trees in the Biological Study Area. Most roosts are used only seasonally, so there is usually some period when bats are not present. Although there are differences between species, maternity sites are generally occupied between May and September and hibernation sites between October and March, depending on the weather.

American Badger

The American badger is a California species of special concern; it has no federal listing. This species is found throughout the State except in the north coast area. The American badger prefers grasslands and savannah habitats with friable soils but is also found in open scrub and woodland habitats. It requires an abundant source of burrowing mammals, such as ground squirrels and gophers for sustenance. They also feed on some reptiles, insects, earthworms, eggs, birds, and carrion and will alter their diet

depending on seasonality and availability. They rarely occur in urbanized areas with frequent human presence or cultivated lands, but they are not completely intolerant to human activities.

Common Animal Species

Common animal species found in urban/rural areas include but are not limited to, American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), barn owl (*Tyto alba*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), California quail (*Callipepla californica*), turkeys (*Meleagris californica*), California ground squirrels, black-tailed mule deer (*Odocoileus hemionus*), and alligator lizard (*Elgaria multicarinata*), and Pacific gopher snake (*Pituophis catenifer catenifer*). Common animal species may use the site to roost, perch, nest, feed, burrow, and hide from predators.

Environmental Consequences

No-Build Alternative

Project improvements would not occur under the No-Build Alternative; therefore, the No-Build Alternative would not impact animal species.

Build Alternative (Phases 1 and 2)

California Legless Lizard and Coast Horned Lizard

As noted above, the annual grassland identified within the Biological Study Area provides suitable habitat for California legless lizards and coast horned lizards. For the purpose of evaluation, impacts to the California legless lizard and coast horned lizard are discussed together since they would be the same. Ground-disturbing activities within the project action area would excavate soils and remove vegetation and leaf litter. This could directly impact both species through direct take, if encountered, and removal of habitat. Therefore, the Build Alternative would have the potential to result in negative impacts to the California legless lizard and the coast horned lizard, but these effects would not be significantly adverse.

Avoidance and minimization measures would be implemented to protect the California legless lizard and the coast horned lizard from potential negative impacts. During ground-disturbing activities associated with project implementation (potentially resulting in take, habitat loss, or degradation), a qualified biologist would be retained to conduct a preconstruction clearance survey for the species in the Biological Study Area (avoidance and minimization measures Animal Species-1 and 2). Should individuals be found, work would not begin until they are removed or move naturally out of the Biological Study Area. The project biologist would relocate any individuals within the Biological Study Area to nearby suitable habitat if the specimen cannot or does not move out of the Biological Study Area on its own.

San Joaquin Coachwhip

As noted above, the annual grassland within the Biological Study Area provides suitable habitat for the San Joaquin coachwhip. Therefore, the project has the potential to result in negative impacts to San Joaquin coachwhip, but these effects would not be significantly adverse.

Avoidance and minimization measures would be implemented to protect San Joaquin coachwhip. During ground-disturbing activities associated with project implementation, a qualified biologist would be retained to conduct a preconstruction clearance survey for the species in the Biological Study Area (avoidance and minimization measure Animal Species-3). No monofilament plastic or mesh would be allowed for erosion control measures (avoidance and minimization measure Animal Species-4). Additionally, a litter control program would be put in motion during all construction activities (avoidance and minimization measure Animal Species-5).

Raptors and Other Migratory Birds

Nests of all raptors are protected under the Migratory Bird Treaty Act and Section 3503.5 of the California Fish and Game Code. Construction-related noise, vibration, dust, or visual disturbances may disrupt nesting activities or may cause birds to leave the area until construction is completed. In extreme cases, nesting efforts may be abandoned, resulting in the take of young or eggs. Therefore, implementation of the Build Alternative would have the potential to result in temporary direct and indirect negative impacts to suitable foraging and nesting habitat preferred by raptors and other migratory birds with the potential to occur within the Biological Study Area. However, these effects would not be significantly adverse.

Avoidance and minimization measures would be implemented to protect raptors and other migratory birds from potential negative impacts. Should clearing and/or construction activities occur during the migratory bird nesting season (including raptors) (February 1 to September 30), a qualified biologist would conduct preconstruction clearance surveys to identify active nests (avoidance and minimization measure Animal Species-6). The Build Alternative would also restrict activities near any discovered active nest that is located during preconstruction clearance surveys as necessary (avoidance and minimization measure Animal Species-7). If trees that contain active migratory birds and/or raptor nests are discovered during construction, they would be removed during the nonbreeding season (avoidance and minimization measure Animal Species-8). Suitable wintering foraging habitat for burrowing owls is present in the Biological Study Area. Construction-related noise, vibration, dust, or visual disturbances may disrupt nesting activities or cause burrowing owls to leave the area until construction is completed. In extreme cases, nesting efforts may be abandoned, resulting in take of young or eggs. If active burrowing owls are detected, the following methodologies outlined in the California Department of Fish and Wildlife's

(2012) Staff Report on Burrowing Owl Mitigation would occur: use of buffer zones and burrow exclusion and closure (avoidance and minimization measure Animal Species-9).

Bat Species

As discussed above, the western red bat (*Lasiurus blossevillii*) may forage in a variety of habitats within the Biological Study Area. If maternity roost sites are within the Biological Study Area during construction activities, the Build Alternative has the potential to, directly and indirectly, impact special-status bat species. Bats are at their most vulnerable in buildings or other roost sites during the summer when large numbers may be gathered together and young bats, unable to fly, may be present. Removal of maternity roost sites may cause direct mortality of numerous bats. Noise and dust from construction could indirectly impact bat species during construction. Therefore, the Build Alternative would have the potential to result in direct and indirect negative impacts to bat species and bat roosting habitat within the Biological Study Area. However, these effects would not be significantly adverse.

Avoidance and minimization measures would be implemented to protect bat species from potential negative impacts. Precautions must be taken to avoid the deliberate killing or injury of bats. As such, a qualified biologist would perform a bat clearance survey before the removal of any oak trees or buildings (avoidance and minimization measure Animal Species-10). Additionally, if a maternity colony of bats is found in the Biological Study Area during construction activities, a qualified biologist would be retained to determine what buffer zones would be used to ensure the continued success of the colony (avoidance and minimization measure Animal Species-11).

American Badger

As noted above, the American badger prefers grasslands and savannah habitats with friable soils but is also found in open scrub and woodland habitats. The annual grassland and ruderal/disturbed areas within the Biological Study Area provide suitable habitat for this species. There are no known occurrences of this species in the vicinity of the Biological Study Area; however, this species may occur. Therefore, the Build Alternative would have the potential to result in direct and indirect negative impacts to American badger, but these effects would not be significantly adverse.

Avoidance and minimization measures would be implemented to protect American badgers from potential negative impacts. During ground-disturbing activities associated with project implementation, a qualified biologist would conduct a preconstruction clearance survey to determine if American badger dens and/or signs of badger occupancy exist within the Biological Study Area (avoidance and minimization measure Animal Species-12). If an active den is discovered, an exclusion zone would be established until the badger has dispersed.

Common Animal Species

Potential impacts to common animal species would be similar to impacts for special-status species, including habitat loss, direct injury, and indirect impacts such as noise and dust during construction. Measures implemented for special-status species would also avoid and minimize impacts to common animal species.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures would be implemented to protect animal species. No compensatory mitigation would be required.

California Legless Lizard

The following measure would be implemented to avoid and minimize potential impacts to California legless lizards. No compensatory mitigation would be required.

- **Animal Species-1:** Before the start of construction, a qualified biologist would conduct a clearance survey for the California legless lizard in the Biological Study Area. The biologist would use hand search methods in the areas of disturbance where the species are expected to occur (in other words, under shrubs, vegetation, or debris). If individuals are found, work would not begin until they are removed or move naturally out of the Biological Study Area. The biologist would relocate any individuals found within the Biological Study Area to nearby suitable habitat if the specimen cannot or does not move out of the Biological Study Area on its own.

Coast Horned Lizard

The following measure would be implemented to avoid and minimize potential impacts to coast horned lizards. No compensatory mitigation would be required.

- **Animal Species-2:** Before the start of construction, a qualified biologist would conduct a clearance survey for the coast horned lizard in the Biological Study Area. The biologist would use hand search methods in the areas of disturbance where the species are expected to occur (in other words, under shrubs, vegetation, or debris). If individuals are found, work would not begin until they are removed or move naturally out of the Biological Study Area. The biologist would relocate any individuals found within the Biological Study Area to nearby suitable habitat if the specimen cannot or does not move out of the Biological Study Area on its own.

San Joaquin Coachwhip

The following measures would be implemented to avoid and minimize potential impacts to San Joaquin coachwhip. No compensatory mitigation would be required.

- **Animal Species-3:** Before the start of any construction activities, a biologist would conduct preconstruction clearance surveys for the San Joaquin coachwhip. If individuals are found, work would not begin until they are removed or move naturally out of the Biological Study Area. The biologist would relocate any individuals found within the Biological Study Area to nearby suitable habitat if the specimen cannot or does not move out of the Biological Study Area on its own.
- **Animal Species-4:** No monofilament plastic or mesh would be used for erosion control measures.
- **Animal Species-5:** A litter control program would be put in motion during all construction activities for the proposed project. Litter would be removed from the site daily.

Raptors and Other Migratory Birds

The following measures would be implemented to avoid and minimize potential impacts to raptors and other migratory birds. No compensatory mitigation would be required.

- **Animal Species-6:** If clearing and/or construction activities occur during the migratory bird (including raptors) nesting season (February 1 to September 30), a qualified biologist would conduct preconstruction clearance surveys to identify active nests within 14 days of the start of project construction. A qualified biologist would conduct the surveys to determine the presence or absence of active nest sites within the proposed impact area, including construction access routes and a 500-foot buffer (if feasible). If no active nests are found, no further mitigation would be required. Surveys would be repeated if construction activities are delayed or postponed for more than 30 days.
- **Animal Species-7:** If an active nest (excluding western burrowing owl) is located during preconstruction clearance surveys, construction activities within the buffer zone would be restricted as necessary to avoid disturbing the nest until a qualified biologist deems it inactive. Restrictions would include the establishment of exclusion zones (no ingress of personnel or equipment) at a minimum radius of 250 feet around an active raptor nest (not including a burrowing owl) and 50 feet around an active migratory bird's nest. Activities allowed within exclusion zones and the size of the exclusion zones may be adjusted through consultation with the California Department of Fish and Wildlife and the Caltrans Biologist.
- **Animal Species-8:** Trees containing active migratory birds' nests and/or raptor nests that must be removed because of project implementation would be removed during the nonbreeding season (October 1 to January 31).
- **Animal Species-9:** If a preconstruction survey is conducted and no burrowing owls are detected, no further mitigation would be required. If active burrowing owls are detected, the following methodologies outlined

in the California Department of Fish and Wildlife's (2012) Staff Report on Burrowing Owl Mitigation would occur: use of buffer zones and burrow exclusion and closure.

Bats

The following measures would be implemented to avoid and minimize potential impacts to bat species. No compensatory mitigation would be required.

- **Animal Species-10:** Before removing any oak trees, a qualified biologist would conduct a bat clearance survey. If bat roosts are identified and removal is planned before the maternity season (May to September), then bats would be flushed from trees or excluded from structures on the site.
- **Animal Species-11:** If a maternity colony of bats is found in the Biological Study Area and the project can be constructed without eliminating or disturbing the roosting colony, (for example, if the colony roosts in a large oak tree not planned for removal), a biologist would determine what buffer zones would be used to ensure the continued success of the colony. Such buffer zones may include a construction-free barrier of 200 feet from the roost and/or the timing of the construction activities outside of the maternity roost season (after July 31 and before March 1).

American Badger

The following measure would be implemented to avoid and minimize potential impacts to American badgers. No compensatory mitigation would be required.

- **Animal Species-12:** A qualified biologist would conduct a preconstruction clearance survey of the Biological Study Area, as well as a 500-foot buffer, where feasible, to determine if American badger dens and/or signs of badger occupancy exist within the Biological Study Area. The survey would be completed no more than seven days before the start of vegetation removal and ground-disturbing activities. If no dens are seen, no further mitigation would be required. Dens would be monitored until the species has left the Biological Study Area (use of a trail camera is suggested). An exclusion zone would be established 100 feet from the den until the badger has dispersed. Preconstruction clearance surveys would be repeated if vegetation removal and ground-disturbing activities are delayed or postponed for more than 30 days.

2.3.5 Threatened and Endangered Species

Regulatory Setting

The main federal law protecting threatened and endangered species is the Federal Endangered Species Act: 16 U.S. Code Section 1531, and so forth. See also 50 Code of Federal Regulations Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this

act, federal agencies, such as the Federal Highway Administration (and Caltrans, as assigned), are required to consult with the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take Statement or a Letter of Concurrence. Section 3 of the Federal Endangered Species Act defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act, California Fish and Game Code Section 2050, and so forth. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Wildlife is the agency responsible for implementing the California Endangered Species Act. Section 2080 of the California Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The California Endangered Species Act allows for take incidental to otherwise lawful development projects; for these actions, an incidental take permit is issued by the California Department of Fish and Wildlife. For species listed under both the Federal Endangered Species Act and the California Endangered Species Act requiring a Biological Opinion under Section 7 of the Federal Endangered Species Act, the California Department of Fish and Wildlife may also authorize impacts to California Endangered Species Act species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the U.S., by exercising (A) sovereign rights to explore, exploit, conserve, and manage all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

Affected Environment

This section is based upon the Natural Environment Study prepared for the project, both dated May 2023. For this analysis, a Biological Study Area was

established for the project. The Biological Study Area/action area is comprised of the ground disturbing limits associated with Phases 1 and 2 of the project, with an additional surrounding 200-foot buffer.

An official U.S. Fish and Wildlife Service list of species for proposed, threatened, and endangered species and critical habitats was generated from the Ventura Fish and Wildlife Office Information for Planning and Conservation database in May 2023. This project is located outside of National Oceanic and Atmospheric Administration Fisheries Service jurisdiction; therefore, a National Oceanic and Atmospheric Administration species list is not required, and no effects to National Oceanic and Atmospheric Administration species are anticipated. According to the Information for Planning and Conservation Species List prepared for this project, a total of 16 federally listed threatened or endangered plant or animal species have the potential to occur within the vicinity of the action area.

In addition, the Natural Environment Study identified four species listed as State threatened or endangered or as State candidate threatened species.

These species, their respective habitat, and survey results are described below in Tables 2.57 through 2.62.

Table 2.57 Identified Threatened and Endangered Species and Survey Results-Plants

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
California Jewelflower	*Caulanthus californicus*	Federal Endangered, State Candidate Endangered	Occurs in sandy areas in Chenopod scrub, pinyon and juniper woodland, and Valley and foothill grass; Elevation: Three to 170 meters; Blooms: May to August.	Habitat Absent	California jewelflower was not detected during surveys and is not expected to occur in the Biological Study Area. Known populations are confined to three areas in hilly terrain west of the San Joaquin Valley: the Carrizo Plain, Santa Barbara Canyon (next to the Cuyama Valley in Santa Barbara County), and the Kreyenhagen Hills (Fresno County). The closest occurrence is 31 miles northwest, eight sub-watersheds away from the action area.
Santa Lucia purple amole	*Chlorogalum purpureum var. purpurpeum*	Federal Endangered	Only known to occur from Fort Hunter Liggett and Camp Roberts. Gravelly, clay, chaparral, cismontane woodland, and valley and foothill grassland. Elevation: 205 to 385 meters; Blooms: April to June.	Habitat Absent	Santa Lucia purple amole was not detected during surveys and is not expected to occur in the Biological Study Area. The action area is outside the range for this species. Low-quality habitat present. The California Native Plant Society Inventory does not identify any locations in the Paso Robles Quadrangle (California Native Plant Society 2021). The closest recorded occurrence is 12 miles northwest from the action area.

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
Spreading navarretia	*Navarettia fossalis*	Federal Endangered	Chenopod scrub, marshes, swamps (assorted willow freshwater), playas, and vernal pools. Elevation is 30 to 655 meters; Blooms: April to June.	Habitat Absent	Spreading navarretia was not detected during surveys and is not expected to occur in the Biological Study Area. Chenopod scrub, marsh, swamp (assorted willow freshwater), playas, and vernal pool habitats are not present in the action area. The California Native Plant Society Inventory does not identify any locations in the Paso Robles Quadrangle. The closest occurrence is 11 miles southwest of the action area.

Source: Hunting Environmental, Natural Environment Study, May 2023.

Table 2.58 Identified Threatened and Endangered Species and Survey Results-Fish

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
Steelhead-South-Central California Coast	*Oncorhynchus mykiss irideus*	Federal Threatened	Spawning habitat equals gravel-bottomed, fast-flowing, well-oxygenated rivers and streams. Non-spawning equals estuarine and marine waters.	Habitat Absent	South-Central California Coast steelhead was not detected during surveys and is not expected to occur in the Biological Study Area. Suitable habitat is not present. Huer Huero Creek is dry most of the year.

Source: Hunting Environmental, Natural Environment Study, May 2023.

Table 2.59 Identified Threatened and Endangered Species and Survey Results–Invertebrates

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
Kern primrose sphinx moth	*Euproserpinus euterpe*	Federal Threatened	Adults would nectar on a variety of flowering species that occur in the region, including filaree, goldfields (*Lasthenia chrysostoma*), baby blue-eyes (*Nemophila menziesii*), and miniature lupine (*Lupinus bicolor*).	Habitat Absent	Kern primrose sphinx moth was not detected during surveys and is not expected to occur in the Biological Study Area. The proposed action area is outside of the known range. Known only in the Walker Basin and Carrizo Plain. The closest recorded occurrence is 62 miles southeast of the action area.
Vernal pool fairy shrimp	*Branchinecta lynchi*	Federal Threatened	Found in vernal pools and ephemeral wetlands. Distributed throughout the Central Valley, including Sacramento County.	Habitat Absent	Vernal pool fairy shrimp was not detected during surveys and is not expected to occur in the Biological Study Area. There is one isolated seasonal wetland (0.02 acre) in the action area. The wetland was completely dry (and cracked) on April 7, 2021. Pool volume is important in determining potential shrimp habitat because deeper pools with a large surface area can more easily maintain their dissolved oxygen levels. Similarly, deep pools will pond long enough to allow the shrimp to complete their life cycle. Vernal pool fairy shrimp have been found in pools ranging from 0.1 to 1.5 acres. It is unlikely the seasonal wetland could sustain vernal pool fairy shrimp. This seasonal wetland is located out of the critical habitat for vernal pool fairy shrimp.

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
Vernal pool fairy shrimp critical habitat (Vernal pool fairy shrimp 29 c)	*Branchinecta lynchi*	Federal Threatened	Found in vernal pools and ephemeral wetlands. Distributed throughout the Central Valley, including Sacramento County.	Habitat Absent	There is one isolated seasonal wetland (0.02 acre) in the action area. The wetland was completely dry (and cracked) on April 7, 2021. Pool volume is important in determining potential shrimp habitat because deeper pools with a large surface area can more easily maintain their dissolved oxygen levels. Similarly, deep pools will pond long enough to allow the shrimp to complete their life cycle. Vernal pool fairy shrimp have been found in pools ranging from 0.1 to 1.5 acres. It is unlikely the seasonal wetland could sustain vernal pool fairy shrimp. This seasonal wetland is located out of the critical habitat for vernal pool fairy shrimp.

Source: Hunting Environmental, Natural Environment Study, May 2023.

Table 2.60 Identified Threatened and Endangered Species and Survey Results–Amphibians and Reptiles

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
Blunt-nosed leopard lizard	*Gambelia silus*	Federal Endangered, State Fully Protected	Semiarid grasslands, alkali flats, and washes. Prefers flat areas with open space for running, avoiding densely vegetated areas. From 30 to 732 meters.	Habitat Absent	Blunt-nosed leopard lizard was not detected during surveys and is not expected to occur in the Biological Study Area. The project site is outside of the known range. The nearest recorded location is 22 miles southwest, five sub-watersheds away from the action area.

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
California red-legged frog	*Rana draytonii*	Federal Threatened, State Species of Special Concern	Found mainly near ponds in humid forests, woodlands, grasslands, coastal scrub, and streamsides with plant cover. Most common in lowlands or foothills. Breeding habitat is in permanent or ephemeral water sources; lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps.	Habitat Absent	California red-legged frog was not detected during surveys and is not expected to occur in the Biological Study Area. While suitable estivation habitat is present in the action area, the creek does not hold water and does not provide suitable cover for this species.
California tiger salamander	*Ambystoma californiense*	Federal Threatened, State Threatened	The species is restricted to grasslands and low foothills with pools or ponds that are necessary for breeding.	Habitat Absent	California tiger salamander was not detected during surveys and is not expected to occur in the Biological Study Area. Suitable habitat is not present in the action area. The nearest recorded occurrence is 40 miles to the north in the Upper San Lorenza Creek River, six sub-watersheds from the action area.

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Rationale
Foothill yellow-legged frog	*Rana boylii*	State Candidate Threatened	Frequents rocky streams and rivers with rocky substrate and open, sunny banks in forests, chaparral, and woodlands. Sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools. From sea level to 6,700 feet (2,030 meters).	Habitat Absent	Foothill yellow-legged frog was not detected during surveys and is not expected to occur in the Biological Study Area. While suitable estivation habitat is present, the Huer Huero Creek does not hold water and does not provide suitable cover for this species.

Source: Hunting Environmental, Natural Environment Study, May 2023.

Table 2.61 Identified Threatened and Endangered Species and Survey Results–Birds

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Survey Results
Bald eagle	*Haliaeetus leucocephalus*	Federal Delisted, State Endangered	Nests in large, old-growth, or dominant live trees with open branch work, especially ponderosa pine. Requires large bodies of water or rivers with abundant fish and adjacent snags.	Habitat Absent	A bald eagle was not detected during surveys and is not expected to occur in the Biological Study Area. Large bodies of water or rivers with abundant fish and adjacent snags are not present in the Biological Study Area or its vicinity. No further studies are required.

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Survey Results
California clapper rail	*Rallus longirostris obsoletus*	Federal Endangered, State Fully Protected	Saltmarshes and mangrove swamps.	Habitat Absent	California clapper rail was not detected during surveys and is not expected to occur in the Biological Study Area. Saltmarsh and mangrove swamp habitats are not present in the action area. Outside of known range. No further studies are required.
California condor	*Gymnogyps californianus*	Federal Endangered, State Endangered	Chaparral, coniferous forest, and oak savannah in Southern and Central California. Nests in cliff cavities, large rock outcrops, or large trees. Roosts on large cliffs or trees near feeding areas.	Habitat Absent	California condor was not detected during surveys and is not expected to occur in the Biological Study Area. There are no cliffs or large rock outcrops in the vicinity. Outside of known range. No further studies are required.
Least Bell's vireo	*Vireo bellii pusillus*	Federal Endangered, State Endangered	Obligate riparian breeder. Cottonwood willows, oak woodlands, and mule fat scrubs along watercourses.	Habitat Absent	Least Bell's vireo was not detected during surveys and is not expected to occur in the Biological Study Area. This species is an obligate riparian breeder. Riparian habitats (cottonwood willows, oak woodlands, and mule fat scrubs) are present in the action area but are not associated with flowing water courses. Outside of known range. No further studies are required.

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Survey Results
Southwestern willow flycatcher	*Empidonax traillii extimus*	Federal Endangered, State Endangered	Breeds in relatively dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes. Overwinters in brushy savanna edges, second growths, shrubby clearings and pastures, and woodlands near water.	Habitat Absent	Southwestern willow flycatcher was not detected during surveys and is not expected to occur in the Biological Study Area. Willow or alder habitats associated with moist meadows, perennial streams, and smaller spring-fed or boggy area habitats are not present in the action area. Outside of known range. The closest known occurrence is 75 miles southeast on the San Ynez River. No further studies are required.
Swainson's hawk	*Buteo swainsoni*	State Threatened	Nests in stands with few trees in riparian areas, juniper-sage flats, and oak savannah in the Central Valley. Forages in nearby grasslands, agricultural fields, and pastures.	Habitat Absent	Swainson's hawk was not detected during surveys and is not expected to occur in the Biological Study Area. The project site is outside of wintering, summering, or year-round known range. The nearest known locations are 15 miles east of the Biological Study Area, and they may seasonally migrate over the vicinity. No further studies are required.
Tricolored blackbird	*Agelaius*	State Threatened	Nest in wetlands or in dense vegetation near open water. Dominant nesting substrates: cattails, bulrushes, blackberry, agricultural silage. Nesting substrate must either be flooded, spinous, or in some way defended against predators.	Habitat Absent	Tricolored blackbird was not detected during surveys and is not expected to occur in the Biological Study Area. There are no wetlands or dense vegetation in the Biological Study Area or vicinity. No further studies are required.

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Survey Results
Yellow-billed Cuckoo	*Coccyzus americanus*	Federal Endangered, State Endangered	Habitat includes wooded habitat with dense cover and water nearby, including woodlands with low, scrubby vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes.	Habitat Absent	Yellow-billed Cuckoo was not detected during surveys and is not expected to occur in the Biological Study Area. Wooded habitats with dense cover and water nearby, including woodlands with low, scrubby vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes, are not present in the Biological Study Area. The nearest known location is 30 miles south of the Biological Study Area. There is no designated critical habitat within the Biological Study Area.

Source: Hunting Environmental, Natural Environment Study, May 2023.

Table 2.62 Identified Threatened and Endangered Species–Mammals

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Survey Results
Giant kangaroo rat	*Dipodomys ingens*	Federal Endangered	Level terrain and sandy loam soils are needed for burrowing. Optimal cover consists of areas with almost no shrub overstory and very few physiographic variations.	Habitat Absent	Giant kangaroo rat was not detected during surveys and is not expected to occur in the Biological Study Area. Level terrain and sandy loam soils are not present in the action area, and the nearest recorded location is 19 miles southeast, five sub-watersheds from the Biological Study Area. No further studies are required.

Common Name	Scientific Name	Status	Habitat	Habitat Present/ Absent	Survey Results
San Joaquin kit fox	*Vulpes macrotis mutica*	Federal Endangered, State Threatened	Occur in desert-like habitats characterized by sparse or absent shrub cover, sparse ground cover, and short vegetative structure. Areas having open, level, sandy ground.	Habitat Present	San Joaquin kit fox was not detected during surveys. The nearest recorded occurrences are 0.9 mile from the vicinity of the Biological Study Area. Critical habitat has not been established for this species. However, potential habitat for the species exists within the Biological Study Area. Therefore, the San Joaquin kit fox may be present in the project action area.
Townsend's big-eared bat	*Corymorhinus townsendii*	State Candidate Threatened, State Species of Special Concern	Cave-dwellings. Also, roosts in old mine workings and are occasionally found in buildings. Population concentrations in areas with cavity-forming rock and in old mining districts.	Habitat Present	Townsend's big-eared bat was not detected during surveys. However, annual grassland foraging habitat and roosting habitat are present in the Biological Study Area. Therefore, Townsend's big-eared bat may be present in the project action area.

Source: Hunting Environmental, Natural Environment Study, May 2023.

As shown above in Tables 2.57 through 2.62, only threatened or endangered species that have the potential to occur within the action area for the Build Alternative are the Townsend's big-eared bat (State candidate threatened) and the San Joaquin kit fox (Federally endangered).

Townsend's Big-Eared Bat

Habitat for bat species consists of foraging habitat, night-roosting cover, maternity roost sites, and winter shelter. These bat species may forage in a variety of habitats. In general, the California Department of Fish and Wildlife is most concerned about the loss of maternity roosting sites. Suitable roosting sites within these habitats include caves, rock crevices, cliffs, buildings, tree bark, and snags. Potential maternity- and night-roosting sites occur in snags, under bark, and in human structures (for example, bridges) within the Biological Study Area. The Townsend's big-eared bat may forage at or near the bridge and/or trees in the Biological Study Area.

San Joaquin Kit Fox

Meandering transect surveys throughout the action area were undertaken in April 2021. Signs of San Joaquin kit fox (scat, tracks, and prey remains) and San Joaquin kit fox dens were not present in the action area, though large ground squirrel colonies were present. Kit foxes construct their own dens, but they can also enlarge or modify burrows constructed by other animals, such as ground squirrels, badgers, and coyotes.

Several vegetation communities in the action area provide potential foraging and denning opportunities for San Joaquin kit fox, including annual grassland, cropland, ephemeral creek (Huer Huero Creek), eucalyptus woodland, oak woodland, seasonal wetland, and valley-foothill riparian. Huer Huero Creek provides a north–south local movement corridor under State Route 46.

Environmental Consequences

No-Build Alternative

Project improvements would not occur under the No-Build Alternative; therefore, the No-Build Alternative would not impact threatened and endangered species.

Build Alternative (Phases 1 and 2)

Potential project-related effects to federally listed threatened or endangered plant and animal species are summarized in Tables 2.63 through 2.68 below.

Table 2.63 Federal Endangered Species Act Preliminary Effect Findings-Plants

Common Name	Scientific Name	Status	Effect Finding	Effect Finding for Critical Habitat (if applicable)
California jewelflower	*Caulanthus californicus*	Endangered	No Effect	Not Applicable
Santa Lucia purple amole	*Chlorogalum purpureum var. purpurpeum*	Threatened	No Effect	Not Applicable

Source: Hunting Environmental, Natural Environment Study, May 2023.

Table 2.64 Federal Endangered Species Act Preliminary Effect Findings-Fish

Common Name	Scientific Name	Status	Effect Finding	Effect Finding for Critical Habitat (if applicable)
Steelhead-South-Central California Coast	*Oncorhynchus mykiss irideus*	Threatened	No Effect	Not Applicable

Source: Hunting Environmental, Natural Environment Study, May 2023.

Table 2.65 Federal Endangered Species Act Preliminary Effect Findings-Invertebrates

Common Name	Scientific Name	Status	Effect Finding	Effect Finding for Critical Habitat (if applicable)
Kern primrose sphinx moth	*Euproserpinus euterpe*	Threatened	No Effect	Not Applicable
Vernal pool fairy shrimp	*Branchinecta lynchi*	Threatened	No Effect	No Effect
Vernal pool fairy shrimp critical habitat (Vernal pool fairy shrimp 29 c)	*Branchinecta lynchi*	Threatened	Not Applicable	No Effect

Source: Hunting Environmental, Natural Environment Study, May 2023.

Table 2.66 Federal Endangered Species Act Preliminary Effect Findings-Amphibians and Reptiles

Common Name	Scientific Name	Status	Effect Finding	Effect Finding for Critical Habitat (if applicable)
Blunt-nosed leopard lizard	*Gambelia silus*	Endangered	No Effect	Not Applicable
California red-legged frog	*Rana draytonii*	Threatened	No Effect	Not Applicable
California tiger salamander	*Ambystoma californiense*	Threatened	No Effect	Not Applicable

Table 2.67 Federal Endangered Species Act Preliminary Effect Findings-Birds

Common Name	Scientific Name	Status	Effect Finding	Effect Finding for Critical Habitat (if applicable)
California clapper rail	*Rallus longirostris obsoletus*	Endangered	No Effect	Not Applicable
California condor	*Gymnogyps californianus*	Endangered	No Effect	Not Applicable
Least Bell's vireo	*Vireo bellii pusillus*	Endangered	No Effect	Not Applicable
Southern willow flycatcher	*Empidonax traillii extimus*	Endangered	No Effect	Not Applicable
Yellow-billed Cuckoo	*Coccyzus americanus*	Endangered	No Effect	Not Applicable

Source: Hunting Environmental, Natural Environment Study, May 2023.

Table 2.68 Federal Endangered Species Act Preliminary Effect Findings-Mammals

Common Name	Scientific Name	Status	Effect Finding	Effect Finding for Critical Habitat (if applicable)
San Joaquin kit fox	*Vulpes macrotis mutica*	Endangered	May Affect, Not Likely to Adversely Affect	Not Applicable
Giant kangaroo rat	*Dipodomys ingens*	Endangered	No Effect	Not Applicable

Source: Hunting Environmental, Natural Environment Study, May 2023.

The Build Alternative would have no effect on all species listed in Tables 2.63 through 2.68, except for San Joaquin kit fox. The Build Alternative may affect but is not likely to adversely affect San Joaquin kit fox. Specific impacts to threatened and endangered species with the potential to be located within the project site are described below.

San Joaquin Kit Fox

The San Joaquin kit fox and their associated dens were not seen during the biological surveys conducted for the project. However, the Build Alternative would result in permanent and temporary impacts to potential San Joaquin kit fox habitat. Though San Joaquin kit foxes are not known to occur in the area, movement through the area is possible. If San Joaquin kit foxes are present, several habitats could provide foraging opportunities. The following impacts could occur to San Joaquin kit fox if present in the Biological Study Area during construction: 1) San Joaquin kit fox could be exposed to noise and disturbance from construction equipment; 2) loss of potential foraging habitat could lead to prey reduction; refer to Table 2.69, Potential Impacts to San Joaquin kit fox habitat.

Table 2.69 Impacts to San Joaquin Kit Fox Foraging Habitat

Habitat	Permanent Impact (Acreage)	Temporary Impact (Acreage)
Annual Grassland	49.25	3.21
Cropland	6.62	0.07
Ephemeral Creek (Huer Huero Creek)	192 square feet	1,600 square feet
Eucalyptus Woodland	0.27	0.09
Oak Woodland	1.13	0.05
Seasonal Wetland	0.02	0.00
Valley-Foothill Riparian	1.09	0.14
Total	58.39	3.49

Source: Hunting Environmental, Natural Environment Study, May 2023.

To minimize impacts related to San Joaquin kit fox, the Build Alternative would implement measures that were derived from the 2011 U.S. Fish and Wildlife Service *Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance.* Such measures would include performing transect surveys within 15 days before any project (avoidance and minimization measure Threatened and Endangered Species-1). If San Joaquin kit fox dens are identified onsite, a qualified biologist would determine their occupancy status and excavate any occupied dens during the nonreproductive season (avoidance and minimization measures Threatened and Endangered Species-2 and Threatened and Endangered Species-3). Protective exclusion zones and fencing would be established around dens that are occupied by San Joaquin kit foxes during the reproductive season (avoidance and minimization measure Threatened and Endangered Species-4).

A speed limit of 20 miles per hour would be observed for project-related vehicles (10 miles per hour at night) (avoidance and minimization measure Threatened and Endangered Species-5), and all excavated, steep-walled holes or trenches more than 2 feet deep would be covered to prevent entrapment of the San Joaquin kit fox (avoidance and minimization measure Threatened and Endangered Species-6). Inspection of all construction pipes, culverts, or similar structures with a diameter of 4 inches or more that are stored onsite would occur (avoidance and minimization measure Threatened and Endangered Species-7).

Food-related trash items would be disposed of in securely closed containers and removed at least once a week from the project site (avoidance and minimization measure Threatened and Endangered Species-8). Firearms and pets would be prohibited from the project site, and rodenticides and herbicides would be restricted in use during construction activities (avoidance and minimization measures Threatened and Endangered Species-9 through Threatened and Endangered Species-11). An identified representative would be identified as a contact person for any employee or contractor who may inadvertently kill a San Joaquin kit fox or who finds a dead, injured, or entrapped San Joaquin kit fox, and this person would be identified to the U.S.

Fish and Wildlife Service (Threatened and Endangered Species-12). An employee education program would be conducted for construction workers and would consist of a brief presentation by persons knowledgeable in San Joaquin kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and/or agency personnel involved in the project (avoidance and minimization measure Threatened and Endangered Species-13).

Upon project completion, all areas subject to ground disturbance would be recontoured and revegetated to promote restoration to pre-project conditions (avoidance and minimization measure Threatened and Endangered Species-14). If any San Joaquin kit foxes become trapped, escape ramps/structures would be installed to allow the animal to escape, or the U.S. Fish and Wildlife Service must be contacted (avoidance and minimization measure Threatened and Endangered Species-15).

The Build Alternative would also require the implementation of compensatory mitigation for the loss of suitable San Joaquin kit fox habitat. Habitat impacts would be mitigated by conserving 3 acres of foraging habitat for each acre impacted. The Build Alternative is outside the County of San Luis Obispo standard mitigation guidance for the removal of San Joaquin kit fox habitat since the project is within the City limits of Paso Robles. However, the project area is surrounded by other projects identified by the County as requiring a ratio of not less than 3 to 1 (area mitigated: area impacted). As shown above in Table 2.69, the Build Alternative would result in 58.39 acres of permanent impacts to San Joaquin kit fox habitat; this would require a minimum of 175.17 acres of mitigation. Compensatory mitigation would be accomplished through one of the three following methods, as detailed in compensatory mitigation measure Threatened and Endangered Species-16:

a. The City of Paso de Robles, in cooperation with Caltrans, would establish an onsite and/or offsite conservation easement of suitable size to offset impacts to San Joaquin kit fox habitat at a ratio of not less than 3 to 1 and would be located in the San Joaquin kit fox corridor area (for example, within the San Luis Obispo County San Joaquin kit fox habitat area northwest of State Route 58).
b. Funds would be deposited into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the San Joaquin kit fox corridor area within San Luis Obispo County.
c. Purchase credits at a California Department of Fish and Wildlife- and U.S. Fish and Wildlife Service-approved conservation bank.

With the implementation of avoidance and minimization measures Threatened and Endangered Species-1 through Threatened and Endangered Species-15, and compensatory mitigation measure Threatened and Endangered Species-16, effects related to the San Joaquin kit fox would not be adverse.

Townsend's Big-Eared Bat

Precautions must be taken to avoid the deliberate killing or injury of bats. The most common and effective method of avoiding these impacts is to carry out the work at an appropriate time of the year. Most roosts are used only seasonally, so there is usually some period when bats are not present. Although there are differences between species, maternity sites are generally occupied between May and September, and hibernation sites between October and March, depending on the weather. An adequate survey and a good understanding of the seasonal activity patterns of the particular species involved will help in determining the optimum time to carry out the proposed work.

If maternity roost sites are within the Biological Study Area during construction activities, the Build Alternative has the potential to, directly and indirectly, impact special-status bat species. Bats are at their most vulnerable in buildings or other roost sites during the summer when large numbers may be gathered together and young bats, unable to fly, may be present. Removal of maternity roost sites may cause direct mortality of numerous bats. Noise and dust from construction could indirectly impact bat species during construction.

As noted above in Section 2.3.4, Animal Species, a qualified biologist would perform a bat clearance survey before any oak trees or buildings are removed (avoidance and minimization measure Animal Species-10). Additionally, if a maternity colony of bats is found in the Biological Study Area during construction activities, a qualified biologist would be retained to determine what buffer zones would be used to ensure the continued success of the colony (avoidance and minimization measure Animal Species-11). "Take," as defined by the California Endangered Species Act, is not expected to occur. With the implementation of avoidance and minimization measures Animal Species-10 and Animal Species-11, the Build Alternative may affect but is not likely to adversely affect Townsend's big-eared bat.

Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented to protect threatened and endangered species:

San Joaquin Kit Fox

The following measures would be implemented to avoid and minimize potential impacts to San Joaquin kit fox:

- **Threatened and Endangered Species-1:** A qualified biologist, approved by the U.S. Fish and Wildlife Service and retained by the City of Paso Robles, would conduct transect surveys to detect potential San Joaquin kit fox dens within 15 days before any habitat modification. Walking transects

would be conducted such that 100 percent visual coverage of the area of the Biological Study Area planned to be under disturbance is achieved.

- **Threatened and Endangered Species-2:** If potential San Joaquin kit fox dens that could be impacted by construction are identified, the biologist would determine the occupancy status of the dens. If the biologist determines that the dens are unoccupied, they would be destroyed immediately to prevent subsequent occupation by kit foxes.
- **Threatened and Endangered Species-3:** Any occupied dens located within the construction area may be excavated only during the nonreproductive season (August 1 to October 31). Before excavation, the entrance to the den would be progressively plugged with loose dirt for at least five days to discourage the use of the dens while still allowing resident foxes to escape. The biologist would monitor the dens daily during this time. When there is no sign of activity at the dens, and it is deemed safe to do so by the biologist, the dens would be dug out with hand tools to a point where it is certain that no kit foxes are present. The dens would then be fully excavated, filled with dirt, and compacted to ensure that kit foxes cannot reenter the dens during the construction period.
- **Threatened and Endangered Species-4:** Protective exclusion zones and fencing would be established around dens that are determined to be occupied by kit foxes during the reproductive season (November 1 to July 31). Non-natal dens would be protected by a 300-foot exclusion zone, and natal/pupping dens would be protected by a 500-foot exclusion zone. Exclusion zones around the dens would not prevent access to the dens by kit foxes and would be maintained until all construction-related or operational disturbances have been terminated. Construction and other project activities would be prohibited or restricted within these exclusion zones as determined necessary by the biologist. Only essential vehicle operation on existing roads and foot traffic in the exclusion zones would be permitted. Otherwise, all construction, vehicle operation, material storage, or any other type of surface-disturbing activity would be prohibited within the exclusion zones. All fencing would be removed immediately after construction to avoid attracting subsequent attention to the dens.
- **Threatened and Endangered Species-5:** Project-related vehicles would observe a daytime speed limit of 20 miles per hour throughout the site in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Nighttime construction would be minimized to the extent possible. However, if it does occur, the speed limit would be reduced to 10 miles per hour. Off-road traffic outside of designated project areas would be prohibited.

- **Threatened and Endangered Species-6:** To prevent inadvertent entrapment of kit foxes or other animals during the construction phase, all excavated, steep-walled holes or trenches more than 2 feet deep would be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks would be installed. Before such holes or trenches are filled, they would be thoroughly inspected for trapped animals.
- **Threatened and Endangered Species-7:** All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods would be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe would not be moved until the U.S. Fish and Wildlife Service has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity until the fox has escaped.
- **Threatened and Endangered Species-8:** All food-related trash items, such as wrappers, cans, bottles, and food scraps, would be disposed of in securely closed containers and removed at least once a week.
- **Threatened and Endangered Species-9:** No firearms would be allowed on the project site.
- **Threatened and Endangered Species-10:** No pets, such as dogs or cats, would be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.
- **Threatened and Endangered Species-11:** Use of rodenticides and herbicides in project areas would be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds would observe labels and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the Service. If rodent control must be conducted, zinc would be used because of a proven lower risk to the San Joaquin kit fox.
- **Threatened and Endangered Species-12:** A representative should be appointed by the project proponent who would be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured, or entrapped kit fox. The representative would be identified during the employee education program, and their name and telephone number would be provided to the U.S. Fish and Wildlife Service.

- **Threatened and Endangered Species-13:** An employee education program would be conducted for any project that has anticipated impacts to kit fox or other endangered species. The program would consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program would include the following: A description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information would be prepared for distribution to the previously referenced people and anyone else who may enter the project site.
- **Threatened and Endangered Species-14:** Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, et cetera, s would be recontoured if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to "temporary" disturbance means any area that is disturbed during the project but after project completion, would not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas would be determined on a site-specific basis in consultation with the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and revegetation experts.
- **Threatened and Endangered Species-15:** In the case of trapped animals, escape ramps or structures would be installed immediately to allow the animal(s) to escape, or the U.S. Fish and Wildlife Service would be contacted for guidance.

The following compensatory mitigation measure would also be implemented to mitigate impacts to San Joaquin kit fox:

- **Threatened and Endangered Species-16:** Habitat impacts would be mitigated by conserving 3 acres of foraging habitat to each acre impacted under one of the following methods:
    - <u>Method 1:</u> The City of Paso de Robles, in cooperation with Caltrans, would establish an onsite and/or offsite conservation easement of suitable size to offset impacts to San Joaquin kit fox habitat at a ratio of not less than 3 to 1 (area mitigated: area impacted) and would be located in the San Joaquin kit fox corridor area (for example, within the San Luis Obispo County San Joaquin kit fox habitat area northwest of State Route 58). Mitigation areas would contain equal or greater San Joaquin kit fox habitat value than those impacted. Compensatory mitigation areas would have a restrictive covenant prohibiting future development/disturbance and would be managed in perpetuity to

encourage the persistence and enhancement of San Joaquin kit fox. Compensatory mitigation lands cannot be located on land that is currently held publicly for resource protection. The compensatory mitigation areas would be managed by a conservation lands management entity or another qualified easement holder. The owner/applicant would provide fees sufficient to cover administrative costs incurred in the creation of the conservation easement (appraisal, documenting baseline conditions, et cetera) and funds in the form of a non-wasting endowment to cover the cost of monitoring and enforcing the terms of the conservation easement in perpetuity. Lands to be conserved and the determination of a qualified easement holder would be subject to the review and approval of the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and the City of Paso Robles.

- Method 2: If acceptable by the City of Paso Robles, Caltrans, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service, funds would be deposited into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the San Joaquin kit fox corridor area within San Luis Obispo County, which can be completed by providing funds to the Nature Conservancy pursuant to the San Luis Obispo County San Joaquin kit fox Voluntary Fee-Based Compensatory Mitigation Program. The fee would be determined based on the current (at the time of grading permit application) cost per unit per acre of mitigation.
- The City of Paso Robles would purchase credits at a California Department of Fish and Wildlife- and U.S. Fish and Wildlife Service-approved conservation bank, specifically the Palo Prieto Conservation Bank. The total fee would be determined based on the current cost per credit (at the time of grading permit application) per acre of mitigation.

Townsend's Big-Eared Bat

Refer to measures Animal Species-10 and Animal Species-11 within Section 2.3.4, which would be implemented to avoid and minimize potential impacts to Townsend's big-eared bat. No compensatory mitigation would be required.

2.3.6 Invasive Species

Regulatory Setting

On February 3, 1999, President William J. Clinton signed Executive Order 13112, requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." Federal Highway Administration guidance issued on August 10, 1999, directs the use of the State's invasive species list,

maintained by the California Invasive Species Council of California, to define the invasive species that must be considered as part of the National Environmental Policy Act analysis for a proposed project.

Affected Environment

This section is based upon the Natural Environment Study prepared for the project, dated May 2023. Noxious weed species include species designated as federal noxious weeds by the U.S. Department of Agriculture, species listed by the California Department of Food and Agriculture, and other exotic pest plants designated by the California Invasive Plant Council. Based on the Natural Environment Study prepared for the project, there are multiple exotic plant species considered to be invasive species that could potentially occur within the Biological Study Area. Some of the more commonly occurring exotic plants in the Biological Study Area include non-native grasses and herbaceous species such as wild oat (*Avena fatua*), foxtail barley (*Hordeum murinum*), rip-gut brome (*Bromus diandrus*), yellow star thistle (*Centaurea solstitialis*), and rabbitsfoot grass (*Polypogon monspeliensis*). Some poison oak (*Toxicodendron pubescens*) and blackberry (*Rubus armeniacus*) were observed in Huer Huero Creek.

Environmental Consequences

Noxious weeds can have a destructive impact on landscape by displacing native plant species, increasing soil erosion, and decreasing wildlife habitat. Thus, it is important to control or eradicate invasive species.

No-Build Alternative

The No-Build Alternative would not require the construction of any of the project improvements. As a result, the No-Build Alternative would not result in impacts related to invasive species. Locations within the Biological Study Area, where invasive species currently occur, would not be modified under the No-Build Alternative.

Build Alternative (Phases 1 and 2)

In compliance with the Executive Order on Invasive Species, Executive Order 13112, and guidance from the Federal Highway Administration, the landscaping and/or erosion control included in the Build Alternative would not use the species listed as invasive. None of the species on the California list of invasive species is used by Caltrans for erosion control or landscaping. Therefore, effects related to invasive species would not be adverse.

However, an avoidance and minimization measure would be included to protect the project site from invasive species. In areas of particular sensitivity, extra precautions would be taken if invasive species are found in or next to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measure would be implemented to protect the site from invasive species.

- **Invasive Species-1:** To prevent the spread of invasive plant species, the following guidelines would be adhered to:
  - Ground disturbance within the construction work area would be minimized to the greatest extent possible.
  - All imported fill material used on the construction site would be weed free. During construction, the contractor will avoid spreading invasive species and pathogens by requiring that weeds designated for removal be removed before disturbing surface soils and disposed of the same day they are removed. The contractor will also require that all nursery stock be certified free of weeds, Phytophthora, or other plant diseases and that imported soil is certified weed-free and from a Caltrans-approved source with protocols in place for minimizing the spread of Phytophthora and other plant diseases.
  - The California Department of Food and Agriculture maintains a current listing of noxious weeds. Only certified noxious weed-free erosion control materials would be used. All straw and seed material would be certified weed free by the County Agricultural Commissioner prior to being used at the project site.
  - All construction vehicles and equipment would be cleaned and inspected for plant material and caked mud before entering the construction work site to prevent spreading invasive plants on the project site.

2.3.7 Cumulative Impacts

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of the proposed project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential

community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

The California Environmental Quality Act Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under the California Environmental Quality Act can be found in Section 15355 of the California Environmental Quality Act Guidelines. A definition of cumulative impacts under the National Environmental Policy Act can be found in 40 Code of Federal Regulations Section 1508.7.

Methodology

Caltrans' Guidance for Preparers of Cumulative Impact Analysis was consulted in conjunction with the preparation of the cumulative analysis for the State Route 46 East/Union Road Intersection Improvements project. The potential for cumulative impacts was evaluated by considering those resources potentially impacted by the project, either directly or indirectly. Per Caltrans' Guidance for Preparers of Cumulative Impact Analysis, if a project would not cause direct or indirect impacts on a resource, it would not contribute to a cumulative impact on that resource and need not be further evaluated. The cumulative impact analysis should focus only on those resources significantly impacted by the project or resources currently in poor or declining health or at risk, even if the project impacts are relatively small (less than significant). Based on these factors and information provided in Chapter 2 of this document, the following identified resources were evaluated and will either not be substantially affected by the project or were determined not to be in poor or declining health or be at risk even if the project impacts would not be substantial. Therefore, these resources were not included in the cumulative impact analysis for this project.

- Coastal Zone: The project site is not within a Coastal Zone.
- Wild and Scenic Rivers: The project is not near any National Wild and Scenic Rivers.
- National Marine Fisheries Service: The project does not include Essential Fish Habitat, and thus National Marine Fisheries Service jurisdiction does not apply.
- Timberlands: There are no timberlands, timber harvesting uses, or Timber Production Zones in the project area.
- Growth: As noted in Section 2.1.5, Growth, while the Build Alternative may influence growth in the project area, this growth has been envisioned under the City’s General Plan and would occur whether or not the Build Alternative is constructed. No resources of concern would be affected, and such resources are not in poor or declining health or at risk even if the project impacts would not be substantial.

- Environmental Justice: As noted in Section 2.1.8, Environmental Justice, the study area census tract associated with the Build Alternative does not have a substantial percentage of minority populations or low-income/poverty-level populations.
- Utilities/Emergency Services: As described in Section 2.1.9, Utilities and Emergency Services, the Build Alternative would not result in adverse temporary or permanent effects related to utilities and emergency services. Utilities and emergency services within the project area are not in poor or declining health or at risk even if the project impacts would not be substantial.
- Invasive Species: As noted in Section 2.3.6, Invasive Species, the Build Alternative would not result in adverse effects related to invasive species. Biological resources in the study area potentially affected by invasive species are not in poor or declining health or at risk even if the project impacts would not be substantial.
- Existing and Future Land Use: As noted in Section 2.1.1, Existing and Future Land Use, the Build Alternative would result in minor changes to land use that would be consistent with the permitted land uses within the project area. Land use for the area is managed by the City of Paso Robles and is not in poor or declining health or at risk, even if the project impacts would not be substantial.
- Parks and Recreational Facilities: As noted in Section 2.1.3, Parks and Recreational Facilities, the project would have a de minimis impacts on Barney Schwartz Park. Parks and recreational facilities within the City of Paso Robles are not in poor or declining health or at risk, even if the project impacts would not be substantial.
- Community Character and Cohesion: As noted in Section 2.1.6, Community Character and Cohesion, the Build Alternative would result in temporary community character and cohesion impacts related to construction air quality, noise, and traffic effects that may affect existing populations and neighborhoods in the study area. However, the community character of the surrounding area is not in poor or declining health or at risk even if the project impacts would not be substantial.
- Real Property: As noted in Section 2.1.7, Relocations and Real Property Acquisition, the Build Alternative would require property acquisition on both a temporary and permanent basis. The Build Alternative would also require residential and business relocations; however, due to the minimal number of relocations, this impact is not considered substantial. Section 2.1.7 identifies that numerous residential and business properties similar in characteristics to those affected by the Build Alternative are available in the project area as relocation options for affected occupants. The project would be required to provide property owners with just compensation and fair market value for their property as a project feature, per the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970,

as amended. This is considered appropriate to address the project's acquisition of real property. Thus, the project would not result in adverse effects related to relocations and real property acquisition.

- Traffic and Transportation/Pedestrian and Bicycle Facilities: As noted within Section 2.1.10, Traffic and Transportation/Pedestrian and Bicycle Facilities, although the Build Alternative would result in minor temporary and permanent impacts related to traffic and transportation, these impacts would not be adverse. In addition, the Build Alternative would result in beneficial permanent effects related to bicycle and pedestrian movement within the study area because it would provide nonmotorized facilities in areas where limited facilities exist. As such, transportation connectivity would be enhanced as a result of these improvements.
- Hydrology and Floodplain: As noted in Section 2.2.1, Hydrology and Floodplain, the Build Alternative would not introduce additional risk for traffic disruptions or loss of life and property. Additionally, the project does not support incompatible floodplain development; the area is fully developed and participating in the National Flood Insurance Program. Moreover, the Huer Huero Creek water surface level would not exceed the allowable 1-foot rise prescribed by the Federal Emergency Management Agency regulations.
- Geology, Soils, Seismicity, and Topography: As noted in Section 2.2.3, Geology, Soils, Seismicity, and Topography, the project would not result in adverse effects related to geology, soils, seismic, or topography. As such, the Build Alternative, in conjunction with other related projects, would not substantially contribute to cumulative impacts related to geology, soils, seismicity, or topography.
- Hazardous Waste/Materials: As noted in Section 2.2.5, Hazardous Waste and Materials, there is a potential for construction workers to be exposed to minor amounts of hazardous waste/materials as a result of onsite conditions and contamination. The Build Alternative would not result in permanent impacts related to hazardous waste/materials since routine maintenance activities during the operation of the Build Alternative would be required to follow applicable regulations regarding the use, storage, handling, transport, and disposal of potentially hazardous materials. The Build Alternative is not anticipated to increase the amount of hazardous waste or materials in the surrounding area. The project area is also not known for containing significant amount of hazardous waste or materials.
- Air Quality: As noted in Section 2.2.6, Air Quality, the Build Alternative would not result in adverse effects related to construction air pollutants upon adherence to Caltrans Standard Specifications and San Luis Obispo County Air Pollution Control District rules and regulations. In addition, on a long-term operational basis, the Build Alternative would result in decreased emissions when compared to the baseline condition, and no adverse effects would occur. San Luis Obispo County, in its entirety, is

Unclassifiable/Attainment for all Carbon Monoxide, Particles of 10 Micrometers or Smaller and Particles of 2.5 Micrometers or Smaller), and nitrogen dioxide National Ambient Air Quality Standards. The air quality within the project area is not in poor or declining health or at risk even if the project impacts would not be substantial.

- Noise and Vibration: As discussed in Section 2.2.7, Noise, noise and vibration impacts associated with construction were determined not to be adverse upon implementation of avoidance and minimization measures. In addition, although operational mobile noise impacts were determined to exceed Caltrans Noise Abatement Criteria at one location (Wine Country Recreational Vehicle Resort), noise abatement was determined not to be reasonable. Additionally, the noise effects related to the Build Alternative are considered localized in nature as noise tends to dissipate quickly over distance. Thus, the Build Alternative, in conjunction with other related projects, would not substantially contribute to cumulative impacts related to noise.
- Energy: As noted in Section 2.2.8, Energy, short-term energy consumption during construction would represent a temporary and nominal demand on local and regional fuel supplies with no noticeable effect on peak or baseline demands for energy. With regard to long-term operations, the Build Alternative is expected to result in a beneficial impact through a reduction in direct energy use due to improved traffic operations.
- Greenhouse Gas Emissions and Climate Change Resources: Cumulative impacts associated with greenhouse gas emissions and climate change are discussed in Section 3.3, Climate Change, of this document.
- Visual/Aesthetics: Environment: As discussed in Section 2.1.11, Visual/Aesthetics, although the Build Alternative would result in temporary and permanent changes in the visual/aesthetic environment in the project area, these effects would not be adverse. As such, the Build Alternative, in conjunction with other related projects, would not substantially contribute to cumulative impacts related to visual/aesthetics.
- Cultural Resources: As noted in Section 2.1.12, Cultural Resources, the Build Alternative would not result in adverse effects related to archaeological or historic resources upon implementation of avoidance and minimization measures. As such, the Build Alternative, in conjunction with other related projects, would not substantially contribute to cumulative impacts related to cultural resources.
- Water Quality and Stormwater Runoff: As noted in Section 2.2.2, Water Quality and Stormwater Runoff, the Build Alternative's temporary and permanent impacts related to water quality and stormwater runoff would not be adverse, and the project would include a range of minimization measures in this regard. Water quality/stormwater conditions for the project site and Salinas River Watershed are regulated under existing Federal and state programs, including the Clean Water Act, National

Pollutant Discharge Elimination System program, Municipal Separate Storm Sewer Systems, and Central Coast Regional Water Quality Control Board Basin Plan, among others. As such, water quality/stormwater runoff conditions in the project area are not in poor or declining health or at risk, even if the project impacts would not be substantial.

- Paleontology: As discussed in Section 2.2.4, Paleontology, no paleontological resources were encountered during a survey of the project site, and none are known to occur within project boundaries or within 1 mile of project boundaries. However, the project site is underlain by geologic units with sensitivity for paleontological resources, and several avoidance, minimization, and mitigation measures have been incorporated so that adverse effects do not occur.
- Tribal Cultural Resources: As noted in Section 3.2.18, Tribal Cultural Resources, Caltrans conducted correspondence with two tribes who provided responses related to the project under Assembly Bill 52. Minimization measure Cultural Resources-1 has been incorporated to ensure that adverse effects to tribal cultural resources do not occur. As such, the Build Alternative, in conjunction with other related projects, would not substantially contribute to cumulative impacts related to tribal cultural resources.

Resources Evaluated for Potential Cumulative Analysis

The following resources are evaluated in this section for cumulative impacts:

- Farmland
- Biological Resources (San Joaquin kit fox)

The discussion of potential cumulative impacts is presented by the environmental resource area. Table 2.66, City of Paso Robles Reasonably Foreseeable Land Development Projects, and Table 2.67, City of Paso Robles Reasonably Foreseeable Transportation Improvement Projects, identify the reasonably foreseeable projects within the project area, including specific plans and other approved land development, as well as transportation infrastructure projects under consideration by the City within City limits.

Farmland

The Resource Study Area pertaining to farmlands is the City of Paso Robles. The boundaries of this Resource Study Area were selected since the City has a long history of agricultural production, with agricultural soils historically utilized for cultivated crops and rangeland, including dry grain crops, pastures, orchard crops, and wine grape vineyards. Based on the City's General Plan, there are approximately 1,067 acres of land designated for agricultural use within the City. As such, this Resource Study Area represents the lands subject to the City's discretionary authority, where the City has the capacity to review proposed development projects for potential impacts to farmlands and weigh these effects as part of their consideration of project

approvals. The reasonably foreseeable projects identified for the Resource Study Area are provided in Table 2.70, City of Paso Robles Reasonably Foreseeable Projects.

Table 2.70 City of Paso Robles and County of San Luis Obispo Reasonably Foreseeable Projects

Map Identification	Project Name	Project Description	Location	Status
1	Erskine (Wisteria Lane) Industrial Development	466,900 square feet of manufacturing use and 183,200 square feet of a business park	North of State Route 46 East (State Route 46) corridor, at the east end of Wisteria Lane and west of Airport Road	Under construction
2	Destino Paso Resort Hotels	Four separate hotels were built in phases on a 40.3-acre site.	East of Airport Road (north of State Route 46)	Proposed
3	Wine Country Recreational Vehicle Resort	Resort, including 162 Recreational Vehicle spaces	East of Airport Road	Built
4	Fairfield Inn (formerly known as Marriott Residence Inn)	120-room hotel	Southeast corner of Union Road/Union Road Connector	Proposed
5	River Oaks Residential Community	144 adult detached units, 127 single-family units, 5,000 square feet community center, and 5,000 square feet fitness/ wellness center	North of River Oaks Drive and east of River Road	Under construction
6	Ayres Hotel	190 hotel rooms, 36 extended stay units, and related amenities	Northeast corner of Buena Vista Drive and Experimental Station Road	Built
7	La Quinta Inn and Suites by Wyndham	30 additional hotel rooms and related amenities	2615 Buena Vista Drive	Built
8	Buena Vista Apartments	142 apartment units	802 Experimental Station Road	Built
9	Tract 2887	51 single-family homes	Southeast corner of River Oaks Drive and Experimental Station Road	Built
10	Recreational Vehicle Park	332 Recreational Vehicle spaces	North end of Golden Hill Road	Built
11	Wine Storage Building	66,000 square feet facility	2261 Wisteria Lane	Built
12	San Antonio Winery Processing Facility	126,000 square feet facility	Wisteria Lane	Built
13	Hilton Garden Inn	166 hotel rooms and related amenities	2348 Golden Hill Road	Expired

Map Identification	Project Name	Project Description	Location	Status
14	San Antonio Winery Development	Tasting room, restaurant, four residences, and retail in addition to existing facilities	2610 Buena Vista Drive	Built
15	Chrysler/Dodge/ Jeep/Ram Dealership	29,800 square feet facility	Northeast corner of Golden Hill Road and Tractor Street	Built
16	Union Road Extension	Union Road would be extended north as an arterial facility from State Route 46/Union Road intersection to connect to Airport Road at/near or south of the existing Airport Road/Dry Creek Road intersection.	Between the State Route 46/Union Road intersection to the south and the Airport Road/Dry Creek Road intersection to the north	Proposed
17	Wisteria Lane Extension	Wisteria Lane would be extended eastwards as a two-lane divided arterial to intersect with Union Road Extension.	Between the eastern terminus of Wisteria Lane and Union Road Extension	Under construction
18	Airport Road (South) Extension	A new roadway referred to as “Airport Road South Extension” would be constructed as a two-lane divided arterial extending south from Union Road (from an intersection at/near the eastern limits of the City of Paso Robles) to connect with the southeastern portion of the City.	Airport Road, from Union Road (from an intersection at/near the eastern limits of the City of Paso Robles) to the southeastern portion of the City	Proposed
19	Gilead Lane Extension	Gilead Lane would be extended eastwards as a two-lane divided arterial that intersects with Airport Road South Extension.	Between the eastern terminus of Gilead Lane and the Airport Road South Extension	Proposed
20	Golden Hill Road Widening	Golden Hill Road is planned for long-range widening to four lanes between State Route 46 and Rolling Hills Road.	Along Golden Hill Road, between State Route 46 and Rolling Hills Road	Proposed
21	Roundabout at Union Road/Golden Hill Road	A two-lane roundabout is planned to be constructed at the Union Road/Golden Hill Road intersection.	Union Road/Golden Hill Road intersection	Under construction

Map Identification	Project Name	Project Description	Location	Status
22	Airport Road/Dry Creek Road Intersection Improvements	The intersection is planned for future widening to add left-turn lanes and signalization.	Airport Road/Dry Creek Road intersection	Proposed

Source: Mott MacDonald, State Route 46 East/Union Road Intersection Improvements Final Traffic Operations Report (June 2019).

Phase 1 of the Build Alternative would directly convert 49.1 acres of "Farmland of Local Importance" and "Farmland of Local Potential" into the roadway; refer to Table 2.4 and Figure 2-4. It is not anticipated that the 49.1 acres of farmland conversion would result in the bisection of agricultural parcels, rendering the agricultural land unusable for cultivation. To avoid or reduce the conversion of farmland while meeting highway design standards, the design of project roadway tangents, circular curves, grades, and embankment slopes have been considered. A cut slope of a 2-to-1 ratio side slope was used at locations where there is deep excavation to reduce farmland conversion impacts. No additional farmland conversion would occur under Phase 2 of the Build Alternative. The Build Alternative would not impact any land designated as "Prime" or "Unique Farmland." Refer to Appendix G, Farmland Conversion Impact Rating Form.

San Luis Obispo County contains 288,127 acres of important farmland, meaning that the proposed project comprises a total of 0.013 percent of important farmland in San Luis Obispo County. According to the 2017 Census of Agriculture, there are a total of 41,953,833 acres of farmland statewide, meaning that the proposed project comprises a total of 0.00009 percent of farmland in California.

In addition, as a roadway project, the Build Alternative would not create new land use or development that would result in a zoning conflict that would cause the need for a zone change. Although the Build Alternative would provide the infrastructure to serve existing traffic demand and future planned growth, any future development project within designated agricultural areas of the City would be subject to a case-by-case zoning consistency review as part of its entitlement process.

The project would require the acquisition of agricultural land for nonagricultural use. Real property acquisition would be acquired per the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and property owners would receive just compensation and fair market value for their property. Due to the minor amount of farmland conversion that would occur under the Build Alternative, adverse effects to farmlands would not occur. Although other development projects in the Resource Study Area could result in effects related to farmlands, these projects would be discretionary actions and subject to project-specific environmental review, and they would be required to incorporate measures to reduce impacts related to farmlands as necessary. As such, the Build Alternative, in conjunction with other related projects, would not substantially contribute to cumulative impacts related to farmlands.

Biological Resources (San Joaquin kit fox)

The San Joaquin kit fox is a Federally endangered and State threatened species. It occurs in desert-like habitats characterized by sparse or absent shrub cover, sparse ground cover, and short vegetative structure, preferring

areas having open, level, sandy ground. Suitable habitat for San Joaquin kit fox occurs within the Biological Study Area for the project. Although no San Joaquin kit fox or dens were observed within the Biological Study Area for the project, the nearest recorded occurrences for this species were 0.9 mile from the Biological Study Area.

The Resource Study Area for the San Joaquin kit fox is the Paso Robles and Valleys Sub-Ecoregion as defined by the U.S. Environmental Protection Agency. Ecoregions are defined by the U.S. Environmental Protection Agency as areas where ecosystems (and the type, quality, and quantity of environmental resources) are generally similar. Ecoregions consider geology, landforms, soils, vegetation, climate, land use, wildlife, and hydrology. It is generally located north of State Route 58, east of Highway 101, south of Highway 198, and west of the Temblor Range mountains. The Paso Robles and Valleys Sub-Ecoregion consists of approximately 176 square miles of land and includes areas within the jurisdiction of the City of Paso Robles, City of Atascadero, and unincorporated portions of the County of San Luis Obispo.

As provided above, Table 2.70, City of Paso Robles Reasonably Foreseeable Projects, identifies the reasonably foreseeable projects within the Resource Study Area that are in the City of Paso Robles. Based on the City of Atascadero's Community Development Department website (https://www.atascadero.org/index.php?option=com_content&view=article&id=550&Itemid=1689), the City does not have any reasonably foreseeable projects within the Resource Study Area. Based on a review of the County of San Luis Obispo's reasonably foreseeable planning and building projects (https://www.slocounty.ca.gov/Departments/Planning-Building/Grid-Items/Community-Engagement/Active-Planning-Projects.aspx) and public works projects (https://www.slocounty.ca.gov/Departments/Public-Works/Current-Public-Works-Projects.aspx), there is one County project located within the Resource Study Area as identified in Table 2.71, County of San Luis Obispo Reasonably Foreseeable Project.

Table 2.71 County of San Luis Obispo Reasonably Foreseeable Project

Project Name	Project Description	Location	Status
Templeton to Atascadero Connector Bicycle Trail	Constructing a new Class 1 multi-use trail between the 101 freeway and Union Pacific Railroad Tracks.	Between the intersection of Vineyard Drive and Main Street in Templeton and the northern edge of Atascadero at San Ramon Road	Proposed

Based on the Species Status Assessment Report for the San Joaquin kit fox, prepared by the U.S. Fish and Wildlife Service (dated August 2020), the San Joaquin kit fox population within the Resource Study Area and surrounding areas are at risk as a result of numerous stressors, including land

development, climate variability, pesticide use, predation, and disease, among others. As a result of these stressors, San Joaquin kit fox populations have decreased across much of its historic range; however, populations are still distributed throughout a variety of habitats and show high genetic diversity and ability to rebound from climatic extremes, demonstrating redundancy and representation.

As noted above, neither the San Joaquin kit fox nor its dens were seen during the biological surveys conducted for the project. However, the Build Alternative would result in permanent and temporary impacts to potential San Joaquin kit fox habitat. Though San Joaquin kit foxes are not known to occur in the area, movement through the area is possible. If San Joaquin kit foxes are present, several habitats could provide foraging opportunities. The following impacts could occur to San Joaquin kit foxes if present in the Biological Study Area during construction: 1) San Joaquin kit foxes could be exposed to noise and disturbance from construction equipment; 2) loss of potential foraging habitat could lead to prey reduction.

To minimize impacts related to San Joaquin kit foxes, the project would implement measures that were derived from the 2011 U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the San Joaquin kit fox Prior to or During Ground Disturbance. Such measures would include performing transect surveys within 15 days before any project (avoidance and minimization measure Threatened and Endangered Species-1). If San Joaquin kit fox dens are identified onsite, a qualified biologist would determine their occupancy status and excavate any occupied dens during the nonreproductive season (avoidance and minimization measures Threatened and Endangered Species-2 and Threatened and Endangered Species-3). Protective exclusion zones and fencing would be established around dens that are occupied by San Joaquin kit foxes during the reproductive season (avoidance and minimization measure Threatened and Endangered Species-4). A speed limit of 20 miles per hour would be observed for project-related vehicles (10 miles per hour at night) (avoidance and minimization measure Threatened and Endangered Species-5), and all excavated steep-walled holes or trenches more than 2 feet deep would be covered to prevent entrapment of the San Joaquin kit fox (avoidance and minimization measure Threatened and Endangered Species-6).

Inspection of all construction pipes, culverts, or similar structures with a diameter of 4 inches or more that are stored onsite would occur (avoidance and minimization measure Threatened and Endangered Species-7). Food-related trash items would be disposed of in securely closed containers and removed at least once a week from the project site (avoidance and minimization measure Threatened and Endangered Species-8). Firearms and pets would be prohibited from the project site, and rodenticides and herbicides would be restricted in use during construction activities (avoidance and minimization measures Threatened and Endangered Species-9 through

Threatened and Endangered Species-11). An identified representative would be identified as a contact person for any employee or contractor who may inadvertently kill a San Joaquin kit fox or who finds a dead, injured, or entrapped San Joaquin kit fox, and this person would be identified to the U.S. Fish and Wildlife Service (avoidance and minimization measure threatened and Endangered Species-12).

An employee education program would be conducted for construction workers that would consist of a brief presentation by persons knowledgeable in San Joaquin kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and/or agency personnel involved in the project (avoidance and minimization measure Threatened and Endangered Species-13). Upon project completion, all areas subject to ground disturbance would be recontoured and revegetated to promote restoration to pre-project conditions (avoidance and minimization measure Threatened and Endangered Species-14). If any San Joaquin kit foxes become trapped, escape ramps/structures would be installed to allow the animal to escape, or the U.S. Fish and Wildlife Service must be contacted (avoidance and minimization measure Threatened and Endangered Species-15).

The Build Alternative would also require the implementation of compensatory mitigation for the loss of suitable San Joaquin kit fox habitat. Habitat impacts would be mitigated by conserving 3 acres of foraging habitat for each acre impacted. The Build Alternative is outside the County of San Luis Obispo standard mitigation guidance for the removal of San Joaquin kit fox habitat since the project is within the City limits of Paso Robles. However, the project area is surrounded by areas that the County has identified as projects that should be mitigated at a ratio of not less than 3 to 1 (area mitigated to area impacted). As shown above in Table 2.69, the Build Alternative would result in 58.39 acres of permanent impacts to San Joaquin kit fox habitat; this would require a minimum of 175.17 acres of mitigation. Compensatory mitigation would be accomplished through one of the three following methods, as detailed in the compensatory mitigation measure Threatened and Endangered Species-16:

a. The owner/applicant would establish an onsite and/or offsite conservation easement of suitable size to offset impacts to San Joaquin kit fox habitat at a ratio of not less than 3 to 1 and would be located in the San Joaquin kit fox corridor area (for example, within the San Luis Obispo County San Joaquin kit fox habitat area northwest of State Route 58).
b. Funds would be deposited into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the San Joaquin kit fox corridor area within San Luis Obispo County.
c. Purchase credits at a California Department of Fish and Wildlife- and U.S. Fish and Wildlife Service-approved conservation bank.

With the implementation of avoidance and minimization measures Threatened and Endangered Species-1 through Threatened and Endangered Species-15 and compensatory mitigation measure Threatened and Endangered Species-16, effects related to San Joaquin kit fox would not be adverse, and these effects would not be a substantial addition to the cumulative effects.

This page intentionally left blank

Chapter 3 CEQA Evaluation

3.1 Determining Significance Under CEQA

The proposed project is a joint project by the California Department of Transportation (Caltrans) and the Federal Highway Administration and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the National Environmental Policy Act and the California Environmental Quality Act. The Federal Highway Administration's responsibility for environmental review, consultation, and any other actions required by applicable federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S. Code Section 327 and the Memorandum of Understanding dated May 27, 2022, and executed by the Federal Highway Administration and Caltrans. Caltrans is the lead agency under the National Environmental Policy Act and the California Environmental Quality Act.

One of the main differences between the National Environmental Policy Act and the California Environmental Quality Act is the way significance is determined. Under the National Environmental Policy Act, significance is used to determine whether an Environmental Impact Statement, or a lower level of documentation, would be required. The National Environmental Policy Act requires that an Environmental Impact Statement be prepared when the proposed federal action (the project) "as a whole" has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under the California Environmental Quality Act may not be of enough magnitude to be determined significant under the National Environmental Policy Act. Under the National Environmental Policy Act, once a decision is made regarding the need for an Environmental Impact Statement, it is the magnitude of the impact that is evaluated, and no judgment of its individual significance is deemed important for the text. The National Environmental Policy Act does not require that a determination of significant impacts be stated in the environmental document.

The California Environmental Quality Act, on the other hand, does require Caltrans to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an Environmental Impact Report must be prepared. Each and every significant effect on the environment must be disclosed in the Environmental Impact Report and mitigated if feasible. In addition, the California Environmental Quality Act Guidelines list "mandatory findings of significance," which also require the preparation of an Environmental Impact Report. There are no types of actions under the National Environmental Policy Act that parallel the

findings of mandatory significance of the California Environmental Quality Act. This chapter discusses the effects of this project and California Environmental Quality Act significance.

3.2 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. Potential impact determinations include Significant and Unavoidable Impact, Less Than Significant Impact With Mitigation Incorporated, Less Than Significant Impact, and No Impact. In many cases, background studies performed in connection with a project will indicate that there are no impacts to a particular resource. A No Impact answer reflects this determination. The questions in this checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project and standardized measures that are applied to all or most Caltrans projects, such as Best Management Practices and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below.

“No Impact” determinations in each section are based on the scope, description, and location of the proposed project as well as the appropriate technical report (listed at the end of this document), and no further discussion is included in this document.

3.2.1 Aesthetics

CEQA Significance Determinations for Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact—The City of Paso Robles General Plan designates hillsides within the City as a “visual amenity" and calls for design standards such as limiting the amount of grading, providing substantial amounts of landscaping, and incorporating architectural treatment that enhances the form of the hillside rather than conflicting with it. The project would not block views of City-designated scenic vistas. As discussed above, the project would not result in substantial view obstruction of the Eastside Ridgeline and the Ridgeline west of Paso Robles. As such, the overall view obstruction of visual resources as seen from the project corridor would be

low. The project would not have a substantial adverse effect on any scenic vistas, so impacts would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway?

Less Than Significant Impact With Mitigation Incorporated—According to Caltrans, a state route must be included on the list of highways eligible for scenic highway designation in Streets and Highways Code Section 263 and can then be nominated for official designation by the local governing body. As discussed, the proposed project would be aligned within a segment of State Route 46 that has been designated as an Eligible State Scenic Highway under the California Scenic Highway Program. In addition, State Route 46, between Jardine Road and Airport Road, and Union Road, are identified as "Gateways to the City" and "Visual Corridors" by Table C-1 of the General Plan. Based on the General Plan, development within a Gateway to the City and Visual Corridor would be designed to make a positive visual impression (in terms of design/architecture and landscaping) and incorporate/preserve natural features. The landscaping and aesthetic treatment measures identified as part of Measures Visual/Aesthetics-2 and Visual/Aesthetics-3 would minimize adverse impacts to scenic highways. Minimization measure Visual/Aesthetics-2 would require landscaping to be included that is compatible with the existing landscape within the project corridor and surrounding area. Landscaping within the project area would include specimen-sized trees and/or shrub/ground cover mass planting and landscape treatment along the highway on-ramps and off-ramps, City streets, the central island of roundabouts, bridge structure, and walls to soften the hardscape features. Minimization measure Visual/Aesthetics-3 would require aesthetic treatments on hardscape features (in other words, bridges, retaining walls, et cetera) to reduce the urbanizing effect and minimize potential graffiti. Grading would be required to use contour grading and slope rounding to minimize conventional cut landform appearance. With the implementation of minimization measures Visual/Aesthetics-2 and Visual/Aesthetics-3 as CEQA mitigation, impacts to scenic resources would be less than significant.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact With Mitigation Incorporated—The proposed project would construct a new State Route 46/Union Road interchange, which would accommodate traffic for existing and planned development in the project vicinity. The proposed project would be designed in conformance with the applicable zoning regulations outlined in the City of Paso Robles Municipal Code, as well as the policies identified in the City's

General Plan to maintain visual character/quality. Thus, the proposed project would not conflict with applicable regulations governing scenic quality, and no measures would be required.

Changes in visual character can be identified by how visually compatible a proposed project will be with the existing condition by using visual character attributes as an indicator. As noted in Section 2.1.11, Visual/Aesthetics, the project corridor is characterized by visual resources such as mature trees, rolling hills, and vegetation. In addition, distant views to the Eastside Ridgeline and the Ridgeline west of Paso Robles are available to the west. Project implementation would result in negligible view blockage to the Eastside Ridgeline and the Ridgeline west of Paso Robles. However, project implementation would require the removal of mature trees and ornamental landscaping, particularly along local roadways. The proposed improvements would also increase the developed appearance of the existing rural character community south of State Route 46. As such, project implementation has the potential to degrade the visual quality of existing landscaping along the corridor. Additionally, proposed infrastructure would include hardscape features (for example, bridge and retaining walls) that have an urbanizing effect, thereby potentially degrading the aesthetic quality along the corridor. Therefore, minimization measures Visual/Aesthetics-2 and Visual/Aesthetics-3 would be implemented as CEQA mitigation to ensure the visual character of the local roadways and that landscape is preserved. As noted above, minimization measure Visual/Aesthetics-2 would require landscaping to soften hardscape features and ensure compatibility with the surrounding area. Minimization measure Visual/Aesthetics-3 would require hardscape treatments and grading techniques that reduce alterations to the visual character in the site vicinity. Implementation of minimization measures Visual/Aesthetics-2 and Visual/Aesthetics-3 as CEQA mitigation would further minimize impacts to the visual character or quality of public views. Impacts would be less than significant with mitigation incorporated in this regard.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact With Mitigation Incorporated—The Build Alternative may require nighttime construction activities. Per Caltrans regulations, nighttime construction would be limited to 10:00 p.m. to 6:00 a.m. Nighttime construction lighting could potentially impact nearby residents, recreational users, and motorists traveling along the project site. These activities may be required to take place for several months. However, the project area contains existing sources of light (for example, vehicle headlights, streetlights, park lighting, residential and nonresidential lights, et cetera). As such, temporary nighttime lighting due to project construction would be similar to existing conditions and would comply with Caltrans regulations. Additionally, per minimization measure Visual/Aesthetics-1, necessary lighting for safety and construction purposes would be directed

away from land uses outside the project area and contained and directed toward the specific area of construction. Implementation of minimization measure Visual/Aesthetics-1 would minimize impacts to light and glare from nighttime construction activities.

On a permanent basis, the implementation of the proposed project may relocate existing lighting sources and traffic signals and/or introduce additional safety lighting sources or traffic signals to the project area. However, no new or relocated lighting sources are proposed near sensitive viewer groups (such as residential uses) in the project vicinity. Residential uses along Union Road and within the western portion of the project corridor would generally experience similar sources of lighting as compared to existing conditions. Motorists traveling along State Route 46 would experience minor lighting impacts due to high travel speeds and short duration of exposure. With the implementation of minimization measure Visual/Aesthetics-1 as CEQA mitigation, light and glare impacts would be less than significant with mitigation incorporated.

3.2.2 Agriculture and Forest Resources

CEQA Significance Determinations for Agriculture and Forest Resources

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

Less Than Significant Impact—The project would impact land that has been designated by the California Department of Conservation as “Farmland of Local Importance” and “Farmland of Local Potential” that surround the State Route 46 East and Paso Robles Boulevard and Union Road intersection. However, there are no properties designated as “Prime,” “Unique,” or “Farmland of Statewide Importance” onsite. No Williamson Act contracts apply to the project site. Based on the City of Paso De Robles' Zoning/Overlay Designation Map Circulation Diagram, the eastern portion of the project site contains areas that are zoned as “agricultural.” However, as a roadway project, the Build Alternative would not create new land use or development that would require a zone change or conflict with the agricultural zoning designation for the site.

The project would require the acquisition of agricultural land for nonagricultural use. Real property acquisition would be acquired per the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and property owners would receive just compensation

and fair market value for their property. Due to the minor amount of farmland conversion that would occur under the Build Alternative, additional project design features are not required for the project. Impacts resulting in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to nonagricultural use would be less than significant; therefore, no mitigation would be required.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

Less Than Significant Impact—Refer to Response 3.2.2(a) above.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact—According to the City's General Plan, there is no forest land, timberland, or timberland zoned Timberland Production located within or next to the project area. Therefore, the project would not conflict with existing zoning for or cause rezoning of forest land, timberland, or timberland zoned Timberland Production, nor would the project result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur, and no measures would be required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact—Refer to Response 3.2.2(c) above.

e) Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use?

No Impact—The project's impacts on agricultural lands have been described above. The project does not involve other changes in the existing environment, which, due to their location or nature, could result in the conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use. No impact would occur, and no measures would be required.

3.2.3 Air Quality

CEQA Significance Determinations for Air Quality

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact—The project site is within the western portion of the South Central Coast Air Basin. The San Luis Obispo County Air Pollution Control District administers air quality regulations in the project area. As discussed in Section 2.2.6, Air Quality, the County, in its entirety, is Unclassifiable/Attainment for carbon monoxide, Particles of 10 micrometers or smaller, Particles of 2.5 micrometers or smaller, and nitrogen dioxide under federal standards. The western portion of the County, which includes the project site, is designated Unclassifiable/Attainment for ozone. The eastern portion of the County is designated nonattainment (marginal) for ozone based on the 2008 and 2015 8-hour ozone federal standards. The County is an attainment area for carbon monoxide, Particles of 2.5 micrometers or smaller, and nitrogen dioxide for state standards; the County is nonattainment for ozone and Particles of 10 micrometers or smaller for state standards.

Temporary Construction Impacts

The proposed project would construct a new State Route 46 East (State Route 46)/Union Road Overcrossing during Phase 1 and realign State Route 46 on-ramps and off-ramps and Paso Robles Boulevard during Phase 2. The construction duration for each phase would be 24 months (for a total of 48 months). Site preparation and roadway construction would involve clearing, cut-and-fill activities, grading, removing or improving existing roadways, and paving roadway surfaces. During construction, short-term degradation of air quality is expected from the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. As detailed in Table 2.39, construction of the proposed Build Alternative would generate maximum daily construction emissions of approximately 8 pounds a day of reactive organic gas, 68.1 pounds a day of carbon monoxide, 100.4 pounds a day of nitrogen oxides, 54 pounds a day of Particles of 10 micrometers or smaller, and 13.7 pounds a day of Particles of 2.5 micrometers or smaller. Total emissions generated during construction would be 1.4 tons per year of reactive organic gas, 12.6 tons per year of carbon monoxide, 16.8 tons per year of nitrogen oxides, 11.9 tons per year of Particles of 10 micrometers or smaller, and 2.9 tons per year of Particles of 2.5 micrometers or smaller.

With adherence to local, state, and federal rules and regulations, including Caltrans Standard Specifications for Construction (Sections 14-11.04 [Dust Control]) and 14-9.02 [Air Pollution Control]) and San Luis Obispo County Air Pollution Control District Rule 401 (Visible Emissions), Rule 402 (Nuisance), and Rule 420 (Cutback Asphalt Paving Materials), the project would not violate any air quality standards during construction. Short-term construction emissions associated with the proposed Build Alternative would result in less than significant impacts, and no measures would be required.

Operational Impacts

Section 2.2.6, Air Quality, quantifies operational mobile-source emissions for the project area under existing/baseline conditions, opening year 2025, and future design year 2045 conditions. It should be noted that Phase 1 of the project was originally expected to complete construction and be open to traffic by 2025 and is now anticipated to be open to traffic by 2029. Phase 2 of the proposed project was originally expected to complete construction and be open to traffic by 2045 and is now anticipated to be open to traffic by 2049. Based on the Technical Memorandum to the Air Quality Report, the updated project opening years for both Phase 1 and Phase 2 would not alter the conclusions of the Air Quality Report. Because the changes in the opening years would not alter the conclusions and for consistency with the Air Quality Report, the original opening years are referenced throughout this section.

As the purpose of the project is to improve operations and access, thereby reducing delays and thus emissions, under opening year 2025 and future design year 2045 conditions, the proposed Build Alternative (Phase 1 and Phase 2) would decrease emissions when compared to both existing conditions. When compared to the No-Build Alternative, the Build Alternative (Phase 1 and Phase 2) would result in slight reductions in emissions under opening year 2025 conditions. In comparison to design year 2045 no-build conditions, the Build Alternative (Phase 1 and Phase 2) would result in slight increases in emissions. Phase 1 of the Build Alternative would result in slight increases of approximately 0.01 ton per year of reactive organic gas, 0.09 ton per year of carbon monoxide, and 0.03 ton per year of nitrogen oxides. Increased emissions of Particles of 10 micrometers or smaller and Particles of 2.5 micrometers or smaller associated with Phase 1 of the Build Alternative would be negligible (in other words, less than 0.01 ton per year) compared to no-build conditions. Phase 2 of the Build Alternative would result in slight increases of approximately 0.11 ton per year of carbon monoxide. Increased emissions of reactive organic gas, nitrogen oxides, Particles of 10 micrometers or smaller, and Particles of 2.5 micrometers or smaller associated with Phase 2 of the Build Alternative would be minor (in other words, less than 0.01 ton per year) when compared to no-build conditions. These slight increases in emissions are anticipated to be somewhat offset by reductions in delays and associated vehicle emissions. When compared to Phase 1 of the Build Alternative, Phase 2 would result in slight reductions in overall emissions. Refer to Table 2.40 for a summary of comparative mobile-source emissions.

The proposed project is included in the San Luis Obispo Council of Governments' financially constrained 2019 Regional Transportation Plan Connecting Communities and the 2019 Federal Transportation Improvement Program, both of which were found to be conforming; refer to Section 2.2.6. Therefore, the proposed project would not conflict with the Air Quality Management Plan, violate any air quality standard, or result in a net increase

of any criteria pollutant. Impacts resulting in conflicts with or obstruction of the implementation of any applicable air quality plan would be less than significant; therefore, no mitigation would be required.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact—Refer to Response 3.2.3(a) above.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact—

Temporary Construction Impacts

Phase 1 and Phase 2 would each have a construction duration of 24 months. The nearest sensitive receptors are rural residential land uses, which are generally south of State Route 46. A public park and health club are also south of State Route 46, along Union Road. Temporary impacts to sensitive receptors regarding fugitive dust resulting from construction activities may occur. However, adherence to local, state, and federal rules and regulations, including Caltrans Standard Specifications for Construction (Sections 14-11.04 [Dust Control]) and 14-9.02 [Air Pollution Control]) and San Luis Obispo County Air Pollution Control District Rule 401 (Visible Emissions), Rule 402 (Nuisance), and Rule 420 (Cutback Asphalt Paving Materials), would minimize temporary air quality impacts to sensitive receptors, and would not expose sensitive receptors to substantial pollutant concentrations. Impacts resulting in the exposure of sensitive receptors to substantial pollutant concentrations would be less than significant; therefore, no mitigation would be required.

Operational Impacts

As discussed in Section 2.2.6, project implementation would improve operations and access and reduce delays through operational and/or capacity improvements at the State Route 46/Union Road and State Route 46/Airport Road intersections. The project would also have a low potential for mobile-source air toxic emission impacts and would not result in a substantial difference in overall mobile-source air toxic emissions when compared to the No-Build Alternative under design year 2045 conditions. Additionally, the proposed project does not involve parking lots; therefore, it would not increase the number of vehicles operating in cold start mode. Accordingly, impacts would be less than significant, and no measures would be required.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact—As stated, the nearest sensitive receptors are rural residential land uses, a public park, and a health club located south of State Route 46, the latter two along Union Road. The proposed project would not create objectionable odors affecting a substantial number of people; however, minor sources of odors would be present during construction. The main power sources for construction equipment are diesel engines and emissions associated with asphalt paving. Because odors would be temporary and disperse rapidly with distance from the source, construction-generated odors would not be expected to result in the frequent exposure of receptors to objectionable odorous emissions. Impacts would be less than significant, and no measures would be required.

3.2.4 Biological Resources

CEQA Significance Determinations for Biological Resources

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less Than Significant Impact With Mitigation Incorporated—

Plant Species: As noted in Section 2.3.4, Plant Species, and Section 2.3.5, Threatened and Endangered Species, no special-status plant species were detected within the Biological Study Area during floristic surveys performed as part of the Natural Environment Study. Nonetheless, construction of both phases of the project would occur over several years, and baseline conditions for special-status plant species within the Biological Study Area may change. During construction associated with Phase 1 and Phase 2 of the project, if special-status plant species are found to be present within the Biological Study Area, individuals may be directly impacted by trampling, compaction, or removal. These species are generally associated with annual grassland. As such, focused surveys would be conducted to determine if any special-status species occur within the Biological Study Area before any vegetation removal or ground-disturbing activities (avoidance and minimization measure Plant Species-1). If special-status plant species are identified within the Biological Study Area but outside the project footprint, protective fencing and warning signs would be installed to warn construction personnel of their presence (avoidance and minimization measure Plant Species-2), and the identified plants would be avoided to the greatest extent possible (avoidance and minimization measure Plant Species-3). Implementation of avoidance and minimization measures Plant Species-1 and Plant Species-2 would reduce impacts to special-status plant species. Impacts would be less than significant with mitigation.

Animal Species: As discussed in Section 2.3.4, Animal Species, and Section 2.3.5, Threatened and Endangered Species, the Biological Study Area includes suitable habitats for a range of special-status species. These species include:

- California Legless Lizard and Coast Horned Lizard: As noted above, the annual grassland identified within the Biological Study Area provides suitable habitat for California legless lizards and coast horned lizards. Therefore, the potential for take of these species would occur. To minimize impacts to these species, a qualified biologist would be retained to conduct a preconstruction clearance survey for the California legless lizard and coast horned lizard in the Biological Study Area (avoidance and minimization measures Animal Species-1 and Animal Species-2). If individuals are found, work would not begin until they are removed or move naturally out of the Biological Study Area. The project biologist would relocate any individuals within the Biological Study Area to nearby suitable habitat if the specimen cannot or does not move out of the Biological Study Area on its own. Implementation of avoidance and minimization measures Plant Species-1 and Plant Species-2 would reduce impacts to the California legless lizard and the coast horned lizard. Impacts would be less than significant with mitigation.
- San Joaquin Coachwhip: The annual grassland within the Biological Study Area provides suitable habitat for the San Joaquin coachwhip. Therefore, the potential for take of this species would occur. To minimize impacts to this species, a qualified biologist would be retained to conduct a clearance survey for the San Joaquin coachwhip (avoidance and minimization measure Animal Species-3). No monofilament plastic or mesh would be used for erosion control measures (avoidance and minimization measure Animal Species-4). Additionally, a litter control program would be put in motion during all construction activities (avoidance and minimization measure Animal Species-5). Implementation of avoidance and minimization measures Animal Species-3 through Animal Species-5 would reduce impacts to the San Joaquin coachwhip. Impacts would be less than significant with mitigation.
- Raptors and Other Migratory Birds: Implementation of the Build Alternative would have the potential to result in temporary direct and indirect impacts to suitable foraging and nesting habitat preferred by raptors and other migratory birds with the potential to occur within the Biological Study Area. Therefore, the potential for take of these species would occur. Nests of all raptors are protected under the Migratory Bird Treaty Act and Section 3503.5 of the California Fish and Game Code. Should clearing and/or construction activities occur during the migratory bird nesting season (including raptors) (February 1 to September 30), a qualified biologist would conduct preconstruction clearance surveys to identify active nests (avoidance and minimization measure Animal Species-6). The Build Alternative would also restrict activities near any discovered active nest

that is located during preconstruction clearance surveys as necessary (avoidance and minimization measure Animal Species-7). Any trees containing active migratory bird nests and/or raptor nests discovered during construction would be removed during the nonbreeding season (avoidance and minimization measure Animal Species-8). Lastly, if burrowing owls are detected during a preconstruction survey, avoidance, minimization, and mitigation methodologies outlined in the California Department of Fish and Wildlife's Staff Report (2012) on Burrowing Owl Mitigation would be implemented (avoidance and minimization measure Animal Species-9). Implementation of avoidance and minimization measures Animal Species-6 through Animal Species-9 would reduce impacts to raptors and migratory birds. Impacts would be less than significant with mitigation.

- Bat Species: The Biological Study Area includes suitable habitat for the western red bat and Townsend's big-eared bat. If maternity roost sites are within the Biological Study Area during construction activities, the Build Alternative has the potential to, directly and indirectly, impact special-status bat species. Bats are at their most vulnerable in buildings or other roost sites during the summer when large numbers may be gathered together and young bats, unable to fly, may be present. Removal of maternity roost sites may cause direct mortality of numerous bats. Noise and dust from construction could indirectly impact bat species during construction. Therefore, the potential for take of this species would occur.
- As such, a qualified biologist would conduct a bat clearance survey before any oak trees or buildings are removed (avoidance and minimization measure Animal Species-10). Additionally, if a maternity colony of bats is found in the Biological Study Area during construction activities, a qualified biologist would be retained to determine what buffer zones would be used to ensure the continued success of the colony (avoidance and minimization measure Animal Species-11). Implementation of avoidance and minimization measures Animal Species-10 and Animal Species-11 would reduce impacts to bat species. Impacts would be less than significant with mitigation.
- American Badger: The American badger prefers grasslands and savannah habitats with friable soils but is also found in open scrub and woodland habitats. The annual grassland and ruderal/disturbed areas within the Biological Study Area provide suitable habitats for this species. There are no known occurrences of this species in the vicinity of the Biological Study Area; however, this species may occur. Therefore, the potential for take of this species would occur.

  As such, a qualified biologist would conduct a preconstruction clearance survey to determine if American badger dens and/or signs of badger occupancy exist within the Biological Study Area (avoidance and minimization measure Animal Species-12). If an active den is discovered, an exclusion zone would be established until the badger has dispersed.

Implementation of avoidance and minimization measure Animal Species-12 would reduce impacts to American Badger. Impacts would be less than significant with mitigation.

- San Joaquin kit fox: The San Joaquin kit fox and San Joaquin kit fox dens were not seen during the biological surveys conducted for the project. However, the Build Alternative would result in permanent and temporary impacts to potential San Joaquin kit fox habitat. Though San Joaquin kit foxes are not known to occur in the area, movement through the area is possible. If San Joaquin kit foxes are present, several habitats could provide foraging opportunities. The following impacts could occur to San Joaquin kit foxes if they are present in the Biological Study Area during construction: 1) San Joaquin kit foxes could be exposed to noise and disturbance from construction equipment; 2) loss of potential foraging habitat could lead to prey reduction. Therefore, the potential for take of this species would occur.

  To minimize impacts related to San Joaquin kit foxes, the project would implement measures that were derived from the 2011 U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the San Joaquin kit fox Prior to or During Ground Disturbance. Such measures would include performing transect surveys within 15 days before any project (avoidance and minimization measure Threatened and Endangered Species-1). If San Joaquin kit fox dens are identified onsite, a qualified biologist would determine their occupancy status and excavate any occupied dens during the nonreproductive season (avoidance and minimization measures Threatened and Endangered Species-2 and Threatened and Endangered Species-3). Protective exclusion zones and fencing would be established around dens that are occupied by San Joaquin kit foxes during the reproductive season (avoidance and minimization measure Threatened and Endangered Species-4). A speed limit of 20 miles per hour would be observed for project-related vehicles (10 miles per hour at night) (avoidance and minimization measure Threatened and Endangered Species-5), and all excavated, steep-walled holes or trenches more than 2 feet deep would be covered to prevent entrapment of San Joaquin kit foxes (avoidance and minimization measure Threatened and Endangered Species-6).

  Inspection of all construction pipes, culverts, or similar structures with a diameter of 4 inches or more that are stored onsite would occur (avoidance and minimization measure Threatened and Endangered Species-7). Food-related trash items would be disposed of in securely closed containers and removed at least once a week from the project site (avoidance and minimization measure Threatened and Endangered Species-8). Firearms and pets would be prohibited from the project site, and rodenticides and herbicides would be restricted in use during construction activities (avoidance and minimization measures Threatened and Endangered Species-9 through Threatened and Endangered

Species-11). An identified representative would be identified as a contact person for any employee or contractor who may inadvertently kill a San Joaquin kit fox or who finds a dead, injured, or entrapped San Joaquin kit fox; this person would be identified to the U.S. Fish and Wildlife Service (Threatened and Endangered Species-12).

An employee education program would be conducted for construction workers and would consist of a brief presentation by persons knowledgeable in San Joaquin kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and/or agency personnel involved in the project (avoidance and minimization measure Threatened and Endangered Species-13). Upon project completion, all areas subject to ground disturbance would be recontoured and revegetated to promote restoration to pre-project conditions (avoidance and minimization measure Threatened and Endangered Species-14). If any San Joaquin kit foxes become trapped, escape ramps/structures would be installed to allow the animal to escape, or the U.S. Fish and Wildlife Service must be contacted (avoidance and minimization measure Threatened and Endangered Species-15).

The Build Alternative would also require the implementation of compensatory mitigation for the loss of suitable San Joaquin kit fox habitat. Habitat impacts would be mitigated by conserving 3 acres of foraging habitat for each acre impacted. The Build Alternative is outside the County of San Luis Obispo standard mitigation guidance for the removal of San Joaquin kit fox habitat since the project is within the City limits of Paso Robles. However, the project area is surrounded by areas that the County has identified as projects that would be mitigated at a ratio of not less than 3 to 1 (area mitigated: area impacted). As shown in Table 2.65, the Build Alternative would result in 58.39 acres of permanent impacts to San Joaquin kit fox habitat; this would require a minimum of 175.17 acres of mitigation. Compensatory mitigation would be accomplished through one of the three following methods, as detailed in mitigation measure Threatened and Endangered Species-16:

a. The City of Paso de Robles, in cooperation with Caltrans, would establish an onsite and/or offsite conservation easement of suitable size to offset impacts to San Joaquin kit fox habitat at a ratio of not less than 3 to 1 and would be located in the San Joaquin kit fox corridor area (for example, within the San Luis Obispo County San Joaquin kit fox habitat area northwest of State Route 58).
b. Funds would be deposited into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the San Joaquin kit fox corridor area within San Luis Obispo County.
c. Purchase credits at a California Department of Fish and Wildlife- and U.S. Fish and Wildlife Service-approved conservation bank.

Implementation of measures Threatened and Endangered Species-1 through Threatened and Endangered Species-16 would reduce impacts to San Joaquin kit fox. Impacts would be less than significant with mitigation.

Based on the analysis above, implementation of measures Plant Species-1 through Plant Species-3, Animal Species-1 through Animal Species-12, and Threatened and Endangered Species-1 through Threatened and Endangered Species-16 would reduce impacts to special-status biological resources. Impacts that would result in a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service would be reduced to less than significant with mitigation.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant Impact With Mitigation Incorporated—

Temporary Impacts

As discussed in Section 2.3.1, Natural Communities, the proposed project would temporarily impact all natural communities and land cover types within the Biological Study Area, except for the seasonal wetland. As described above, Huer Huero Creek (an ephemeral creek), valley-foothill riparian habitat, a seasonal wetland area, and an existing nodding needlegrass grassland (*Nassella cernua*) are located within the Biological Study Area and were identified as natural communities of special concern. While the Build Alternative would not result in temporary impacts to the seasonal wetlands within the Biological Study Area, the project would result in temporary impacts to Huer Huero Creek, valley-riparian habitat, and nodding needlegrass grassland. Construction operations and the stockpiling of portable equipment, vehicles, and supplies would be restricted to designated staging areas (avoidance and minimization measure Natural Communities-1). Adherence to guidelines involving invasive plant species prevention would be required (avoidance and minimization measure Invasive Species-1), and all exposed or temporary disturbance areas that have barren vegetation would be restored postconstruction (avoidance and minimization measure Natural Communities-2).

Temporary Large Sediment Barriers would be installed between Huer Huero Creek and the construction limits to prevent accidental disturbance and protect water quality within the creek (avoidance and minimization measure Natural Communities-3). Lastly, all construction workers would receive environmental awareness training before the start of work (avoidance and

minimization measure Natural Communities-4). Implementation of avoidance and minimization measures Natural Communities-1 through Natural Communities-4 and Invasive Species-1 would reduce temporary impacts to sensitive natural communities.

Permanent Impacts

As shown in Table 2.49, the Build Alternative would result in permanent impacts to 192 square feet of Huer Huero Creek, 0.95 acre of permanent impacts to valley-foothill riparian habitat, and 0.02 acre of permanent impacts to seasonal wetland within the Biological Study Area. The Build Alternative would not result in permanent impacts to nodding needlegrass grassland.

The Build Alternative would also involve widening the existing Huer Huero Creek Bridge Overcrossing that crosses over Huer Huero Creek. According to the Natural Environment Study, the proposed widening of Huer Huero Creek Bridge would include installing pier walls and abutments that would permanently displace 192 square feet of the ephemeral creek's streambed. Before construction, the City would procure the necessary permits for its potential impacts to Huer Huero Creek.

Additionally, in-stream construction work would occur during the driest time based on the annual forecast (historically, Huer Huero Creek rarely flows between June through November). The work window would be limited to June 1 through October; however, deviation from this schedule may be allowed with approval from the California Department of Fish and Wildlife and other resource agencies (avoidance and minimization measure Natural Communities-5). Best Management Practices would also be implemented onsite to prevent the degradation of onsite and offsite Waters of the U.S. (avoidance and minimization measure Natural Communities-6). Implementation of avoidance and minimization measures Natural Communities-5 and Natural Communities-6 would reduce permanent impacts to sensitive natural communities.

Based on this evaluation, impacts that would result in substantial adverse effects on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service would be less than significant with mitigation.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, et cetera) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact With Mitigation Incorporated—As discussed in Section 2.3.2, Wetlands and Other Waters, Huer Huero Creek and the seasonal wetland seen within the Biological Study Area are considered to be Waters of the U.S. and Waters of the State and are subject

to the regulation of the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife. As discussed in Section 2.3.1, Natural Communities, the Build Alternative would temporarily impact 1,600 square feet and permanently impact 192 square feet of Huer Huero Creek. The Build Alternative would permanently impact 0.02 acre of the seasonal wetland (with no temporary impacts).

The Build Alternative would be subject to the following permits/approvals before impacts to jurisdictional features:

- Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers;
- Clean Water Act Section 401 permit from the Regional Water Quality Control Board; and
- 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife.

As noted in Section 2.3.1, Natural Communities, implementation of avoidance and minimization measures Natural Communities-1 through Natural Communities-7 would reduce temporary and permanent impacts to Huer Huero Creek and the seasonal wetland.

In addition, through the regulatory permitting process with the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, and the California Department of Fish and Wildlife, the project would be subject to compensatory mitigation to mitigate impacts to jurisdictional waters. As described in the Natural Environment Study, impacts to Huer Huero Creek may be subject to compensatory mitigation required by the California Department of Fish and Wildlife as a part of the Streambed Alteration Agreement process. This action would begin with the preparation of a restoration plan. The final plan would be agreed upon by concerned agencies before implementation. The final plan would identify postconstruction native plantings with annual monitoring schedule and performance criteria; refer to mitigation measure Wetlands and Other Waters-1. Impacts related to the seasonal wetland would be subject to compensatory mitigation through the protection in perpetuity of 0.02 acre of seasonal wetland through payment into a U.S. Fish and Wildlife-approved fee program, acquisition of credits through a conservation bank, or onsite restoration, where agencies allow; refer to mitigation measure Wetlands and Other Waters-2. Impacts that could result in a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, et cetera) through direct removal, filling, hydrological interruption, or other means would be less than significant with mitigation.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant Impact—As discussed in Section 2.3.1, Natural Communities, Huer Huero Creek provides a north-south local movement corridor under State Route 46. Construction activities would potentially negatively affect the use of this corridor. However, impacts would be temporary and would not result in significantly adverse effects to the corridor. Thus, the Build Alternative would not result in significantly adverse effects to existing habitat connectivity corridors within the Biological Study Area.

Huer Huero Creek is an ephemeral feature that does not support the movement of migratory fish. Impacts in this regard would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact With Mitigation Incorporated—Refer to Responses 3.2.4(a) through (c) above. The City of Paso Robles Code of Ordinances, Chapter 10.01, Oak Tree Preservation, provides policies, regulations, and specifications for the preservation of oak trees within the City and to control their pruning and/or removal. The project would adhere to the City's Oak Tree Preservation regulations along with any other local policies or ordinances protecting biological resources. Implementation of avoidance and minimization measures Plant Species-1 through Plant Species-3, Animal Species-1 through Animal Species-12, Threatened and Endangered Species-1 through Threatened and Endangered Species-15, Natural Communities-1 through Natural Communities-7 would reduce impacts to biological resources. Compensatory mitigation measures Threatened and Endangered Species-16, Wetlands and Other Waters-1, and Wetlands and Other Waters-2 would also reduce impacts. The potential for conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, would be less than significant with mitigation.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or another approved local, regional, or state habitat conservation plan?

No Impact—According to the project's Natural Environment Study (July 2022), the project site is not within a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. As such, no impacts would occur in this regard.

3.2.5 Cultural Resources

CEQA Significance Determinations for Cultural Resources

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less Than Significant Impact With Mitigation Incorporated—As noted in Section 2.1.12, three resources within the architectural Area of Potential Effects were identified as historic-period built-environment resources that would require National Register and California Register evaluations. One of these three resources, the Johnson House, was determined eligible for listing in the National and California Registers of Historic Places under criterion 3 because it embodies the distinctive characteristics of a type, period, and method of construction of a late 19th century National Folk-style residence constructed of brick, using local materials, by family and friends of the Johnson family, using the technology available at the time, and in the form and layout indicative of the style and modest means of the family for which it was constructed. Character-defining features of the resource include the unreinforced masonry brick foundation and walls, original doors, original double-hung windows, arched window and door openings, second-story awning windows, an interior brick chimney, hipped roof, nearly square ground plan, and interior room layout. Noncontributing features of the resource include the plywood window replacement, slush mortar, corrugated metal roof, and wood and metal remnants of the porch. Thus, the Johnson House is eligible for listing in the National and California Registers of Historic Places, and the State Historic Preservation Officer concurred with this finding on April 16, 2020.

Proposed improvements near the Johnson House include the realignment of the existing Union Road. Construction activities are proposed within 25 feet of the Johnson House. While the Johnson House is outside of the area of the direct impact associated with the Build Alternative, the Johnson House could be subject to temporary construction-related vibration impacts. Road removal and construction would include site preparation, trenching, grading, and paving activities. Equipment to be used would be large bulldozers, loaded trucks, small bulldozers, jackhammers, and static rollers.

Based on the Finding of Effect, the Johnson House is an approximately 130-year-old unreinforced masonry building showing signs of spalling and cracking due to water damage and past earthquakes. It is treated as a Category 4 building, which is defined as “Buildings extremely susceptible to vibration damage,” as identified by the Federal Transportation Administration. As noted in the Finding of Effect, the peak particle velocity threshold associated with ground-borne vibrations for Category 4 buildings is 0.12 peak particle velocity inches per second.

As described in Section 2.1.12, using vibratory rollers would exceed the peak particle velocity threshold for Category 4 buildings of 0.12 peak particle velocity inches per second if used at 25 to 35 feet from the Johnson House.

To minimize potential ground-borne vibration impacts to the Johnson House, avoidance and minimization measure Cultural Resources-2 would require the preparation of a vibration monitoring plan. The vibration monitoring plan would be completed in accordance with the Caltrans Transportation and Construction Vibration Guidance Manual and would prevent the use of a vibratory roller within 35 feet of the Johnson House and instead require the use of a static roller.

As described in Section 2.1.12, the usage of static rollers may produce ground-borne vibration levels below the 0.12 peak particle velocity inches per second threshold for Category 4 buildings at 35 feet. However, the static rollers may produce ground-borne vibration levels above the 0.12 peak particle velocity inches per second threshold at 25 feet. Due to the Build Alternative's potential for exceeding the threshold, vibration monitoring would be implemented and enforced when static rollers are used within 35 feet of the Johnson House site (avoidance and minimization measure Cultural Resources-3). Vibration monitoring would be carried out by a qualified professional who would ensure that vibration levels do not exceed the 0.12 peak particle velocity inches per second threshold for Category 4 buildings. In addition, minimization measure Cultural Resources-4 would require that a preconstruction meeting is held with construction personnel to inform crews of the sensitivity of the Johnson House and provide details related to the vibration management plan. Due to the potential for exceeding the threshold, a vibration monitoring plan and vibration monitoring would be required when static rollers are used within 35 feet of the Johnson House.

With the implementation of avoidance and minimization measures Cultural Resources-1 through Cultural Resources-4 as CEQA mitigation, the proposed project would not result in substantial adverse changes in the significance of historical resources. Therefore, impacts to historical resources would be less than significant with mitigation incorporated.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less Than Significant Impact With Mitigation Incorporated—As noted in the Historic Property Survey Report and Supplemental Archaeological Survey Report, the records search identified no archaeological resources within the Area of Potential Effects or Supplemental Area of Potential Effects and three archaeological resources within 0.25 mile of the Area of Potential Effects and Supplemental Area of Potential Effects. Approximately 96 percent of the total archaeological Area of Potential Effects has been surveyed previously, and no archaeological resources are known to exist within the archaeological Area of Potential Effects. Despite multiple attempts to gain site access to the entire project site, four percent of the archaeological Area of Potential Effects remains unsurveyed. Even though most of the Area of Potential Effects has been disturbed by previous roadway construction, residential development,

and agricultural use, prehistoric and historic-period archaeological sensitivity within the Area of Potential Effects is moderate mainly because the project would extend up to 10 feet below the ground surface.

As noted in Section 2.1.12, because 100 percent of the Area of Potential Effects could not be surveyed, Caltrans is taking a phased approach to the identification, evaluation, and application of the Criteria of Adverse Effect for this undertaking. As part of this approach, the project has included the preparation of a project-specific Programmatic Agreement between Caltrans and the State Historic Preservation Officer, in addition to a Cultural Resources Management Plan. The Programmatic Agreement and Cultural Resources Management Plan provide guidance on a phased approach to ensure greater efficiency in the compliance process while enabling components of the Build Alternative to move forward. The phasing plan includes field evaluations of newly identified archaeological resources on parcels that have not previously been surveyed. Caltrans will implement a strategy of minimization and/or avoidance of direct or indirect effects on any resources that appear to meet the National Register and/or California Register criteria of eligibility.

Minimization measure Cultural Resources-1 would require that the project adheres to the requirements of the Programmatic Agreement and Cultural Resources Management Plan to minimize potential impacts to cultural resources as a result of the project. With the implementation of avoidance and minimization measures Cultural Resources-1 as CEQA mitigation, the proposed project would not result in substantial adverse changes in the significance of archaeological resources. Impacts to archaeological resources would be less than significant with mitigation incorporated.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact—Given the previous level of disturbance and development in the project vicinity, it is not anticipated that human remains would be discovered during ground-disturbing activities associated with project construction. No known cemeteries are within the project limits. However, a very small potential still exists to discover undocumented human remains due to the presence of historical resources within the project limits and the inability to survey the entire project site. If human remains are discovered, California Health and Safety Code Section 7050.5 states that further disturbances and activities should stop in any area or nearby area suspected to overlie remains, and the county coroner should be contacted. If the coroner thinks the remains are Native American, the coroner would notify the Native American Heritage Commission, who, pursuant to Public Resources Code Section 5097.98, would then notify the Most Likely Descendant. Further provisions of Public Resources Code Section 5097.98

are to be followed as applicable. Thus, impacts would be less than significant in this regard, and no measures would be required.

3.2.6 Energy

CEQA Significance Determinations for Energy

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?

Less Than Significant Impact—Construction of the proposed Build Alternative would result in short-term energy consumption related to the manufacture of construction materials, the use of construction equipment that requires petroleum fuels, and the use of construction motor vehicles as they travel to and from the site. Construction activities are expected to take approximately 48 months total; 24 months for Phase 1 and 24 months for Phase 2. This type of energy consumption would represent a nominal demand on local and regional fuel supplies and would be temporary and cease once construction is complete. The demand for fuel would have no noticeable effect on peak or baseline demands for energy. Although construction would result in a short-term increase in energy use, project construction would be required to comply with Caltrans' Standard Specifications (Caltrans 2018). Thus, construction-related energy consumption anticipated under the Build Alternative would not result in the inefficient, wasteful, or unnecessary consumption of energy, and energy consumption would stop once project construction is complete. Impacts in this regard would be less than significant.

As discussed in Section 2.2.8, Energy, throughout long-term operations, the Build Alternative is expected to result in a beneficial impact since it would improve access to, from, along, and across State Route 46 East (State Route 46) at the Union Road intersection, reduce delays, and improve reliability and operations in the vicinity of the intersections of State Route 46/Union Road and State Route 46/Airport Road, thus resulting in reductions in fuel consumption. Therefore, operational impacts associated with energy consumption would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact—As stated above, the construction of the proposed Build Alternative would result in minimal energy consumption that would stop at project completion. Additionally, project operations would not result in any operational energy, natural gas, or fuel consumption. Instead, long-term operations would have a beneficial impact of reduced delays on

State Route 46 and nearby roadways and thus reduce fuel consumption. As the proposed Build Alternative would not have any operational energy, natural, or fuel usage, the Build Alternative would not conflict with any State or local plan for renewable energy or energy efficiency. Impacts would be less than significant in this regard, and no measures would be required.

3.2.7 Geology and Soils

CEQA Significance Determinations for Geology and Soils

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

No Impact—The project area is not in an Alquist-Priolo Earthquake Fault Zone, and the San Andreas Fault and Rinconada Fault are not within the project limits. Thus, the risk of ground surface rupture and related hazards at the project site is expected to be low. The improvements proposed under the Build Alternative are not expected to be exposed to effects associated with fault displacement and ground rupture. No impact would occur, and no measures would be required (Source: California Department of Conservation, Earthquake Zones of Required Investigation, https://maps.conservation.ca.gov/cgs/eqzapp/app/, accessed on April 29, 2020).

ii) Strong seismic ground shaking?

Less Than Significant Impact—The project site is within the seismically active region of Southern California. Throughout the project's life, seismic activity is likely to generate moderate to strong seismic shaking at the site during earthquakes. The project would comply with the most current Caltrans procedures and design criteria regarding seismic design to minimize any adverse effects related to seismic ground shaking. Earthwork would be performed in accordance with Caltrans Standard Specifications, Section 19, which requires standardized measures related to compacted fill, over excavation, recompaction, and retaining walls, among other requirements. Moreover, Caltrans Highway Design Manual Topic 113, Geotechnical Design Report, would require that a site-specific, geotechnical field investigation is performed for the proposed project during the Plans, Specifications, and Estimates phase.

Based on the Structure Preliminary Geotechnical Report prepared for the project, minimization measure Geology-1 would require that foundations for Huer Huero Creek Bridge overcrossing abutments and center bent would utilize spread footings and/or driven piles, with footings at a minimum depth of 5 feet. Minimization measure Geology-2 would require that on- and off-ramp bridges are founded on Caltrans standard 70- or 100-ton piles, with pile caps set at a minimum depth of 5 feet or higher, depending on pile cap placement. Minimization measure Geology-3 would require that, prior to placement of embankment fill, a minimum of 3 feet of existing subgrade is removed, and the exposed soil surface is scarified, moisture conditioned, and recompacted. Minimization measure Geology-4 would minimize impacts related to potential soft and unstable subgrade soil conditions by requiring the use of chemical treatment, placement of geotextiles and/or geogrids, and removal and replacement of the soil.

Implementation of minimization measures Geology-1 through Geology-4 would further avoid and minimize impacts regarding seismic ground shaking. Impacts would be less than significant in this regard.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact—Liquefaction is the process by which water-saturated sediment temporarily loses strength and acts as a fluid, like when you wiggle your toes in the wet sand near the water at the beach (Source: U.S. Geological Survey Earthquake Glossary). Preliminary liquefaction analysis within the Structure Preliminary Geotechnical Report determined that the project area along Huer Huero Creek could be subject to liquefaction hazards due to the soil content and shallow groundwater. The remainder of the project site has been determined to have a low potential to encounter liquefaction hazards.

During liquefaction, the energy from the earthquake causes the water pressure within the pores of the soil to increase. The increase in water pressure decreases the friction between the soil grains, allowing the soil grains to move relative to one another. During this state, the soil will behave as a viscous liquid, temporarily losing its ability to support foundations and other improvements. The high-pressure water will flow through the soil along the path of least resistance. As the pressure is released, the soils typically settle in a process called "dynamic settlement." Dynamic settlement can cause damage to structures and other surface and subsurface improvements. The Structure Preliminary Geotechnical Report determined that liquefaction-induced (seismic) settlement of onsite soils could also occur along Huer Huero Creek.

The project would adhere to the site-specific recommendations regarding earthwork (fill, compressible soils, over excavation/recompaction), soil expansion, erosion, liquefaction and seismically induced settlement,

embankment settlement and stability, cut slopes, and requirements for geotechnical field investigations for the proposed project as provided in the Structure Preliminary Geotechnical Report. As noted above, minimization measures Geology-1 through Geology-4 include a range of design recommendations related to bridge footings/piles, embankment fill and recompaction, and soil stability to further minimize impacts related to seismic-related ground failure. Further, additional site-specific soil borings, cone penetration test soundings, and groundwater data would be obtained during the Plans, Specifications, and Estimates phase and would comply with applicable Caltrans design standards. Adherence to all applicable recommendations (minimization measures Geology-1 through Geology-4) would further minimize potential impacts regarding liquefaction. Less than significant impacts would occur in this regard.

iv) Landslides?

No Impact—The topography of the project site is generally described as rolling hills without any steep natural slopes. Therefore, landslide potential is considered low. No impacts would occur in this regard, and no measures would be required.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact—

Temporary Construction Impacts

As discussed in Section 2.2.3, onsite soils have been mapped as older alluvium, recent alluvium, and stream channel deposits. Due to the high sand and gravel contents of the recent and older alluvium and stream channel deposits, soils within the project area are found to be moderately susceptible to erosion.

Steep slopes that would be prone to erosion exist onsite at the following locations:

- Existing State Route 46 East (State Route 46)/Union Road intersection;
- Existing Huer Huero Creek Bridge abutments and embankments;
- Existing State Route 46/Airport Road intersection;
- Proposed Union Road roundabout south of the proposed State Route 46 eastbound off-ramp and on-ramp; and
- Proposed Paso Robles Boulevard cul-de-sac.

Grading and earthwork activities associated with proposed project construction would result in exposed soils subject to erosion and siltation.

To minimize the potential for soil erosion and siltation, standard practices such as temporary large sediment barriers, soil binders, and rock slope protection would be implemented (Caltrans Standard Specifications Sections 13-05 and 21). As noted in Section 2.2.2, Best Management Practices, including Construction Site Best Management Practices (for example, storm drain inlet protection, temporary large sediment barriers, gravel bed berms, et cetera) and Job Management Best Management Practices (such as wind erosion control, spill prevention and control, et cetera) would minimize potential erosion impacts to downstream water bodies. The project would be required to adhere to existing temporary construction-related National Pollutant Discharge Elimination System requirements, which would minimize impacts in this regard. Compliance with the Construction General Permit would require the preparation and implementation of a Stormwater Pollution Prevention Plan. The Stormwater Pollution Prevention Plan would specify Best Management Practices to be used during project construction to minimize or avoid water pollution, including erosion. With adherence to these requirements, impacts in this regard would be less than significant.

Operational Impacts

Surficial soils on existing slopes within the project limits are mostly sandy soils with gravel and are susceptible to moderate to high erosion.

Most of the slopes proposed as part of the Build Alternative would be sloped at a ratio of 4 horizontal to 1 vertical or flatter. Fill embankments would be globally stable for a maximum slope gradient of a ratio of 2 horizontal to 1 vertical or flatter, and fill slopes with a gradient of a ratio of 2 horizontal to 1 vertical would be surficially stable. These areas would be maintained with erosion protection and drainage control in accordance with Section 21 of Caltrans Standard Specifications (2018). The project would adhere to the earthwork recommendations provided in the Structure Preliminary Geotechnical Report. As such, potential impacts regarding soil erosion would be less than significant, and no measures would be required.

c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact—The Structure Preliminary Geotechnical Report determined that the project site would not be subject to landslide. The soil types associated with the project site are primarily sand, silt, and clay, which are not expected to be expansive.

As discussed above, the project site is subject to liquefaction and lateral spreading hazards along the Huer Huero Creek. However, the project would adhere to the earthwork recommendations provided in the Structure Preliminary Geotechnical Report (minimization measures Geology-1 through 4), which would reduce potential impacts related to liquefaction and lateral

spreading. Additional site-specific soil borings, Cone Penetrometer Tests soundings, and groundwater data would be obtained during the Plans, Specifications, and Estimates phase. Less than significant impacts would occur in this regard.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less Than Significant Impact—Refer to Response 3.2.7(d) above.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact—The proposed project would construct a new State Route 46/Union Road interchange. The Build Alternative would not involve the use of septic tanks or alternative methods for the disposal of wastewater into subsurface soils and would not connect to existing public wastewater infrastructure. No impact would occur in this regard.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact With Mitigation Incorporated—Based on the Combined Paleontological Identification Report and Paleontological Evaluation Report, no fossils are known from the project area or within a mile radius of the site. However, the project area consists of surficial and subsurface geologic units ranked low to high in the potential for buried fossils. As a result, ground-disturbing activities associated with project construction could result in the disturbance or loss of previously undiscovered paleontological resources. A worker's environmental awareness training and onsite construction monitoring would be required (avoidance and minimization measure Paleontology-1 and mitigation measure Paleontology-2). If paleontological resources are discovered during ground-disturbing activities, fossil preparation, curation, and reporting would occur in accordance with mitigation measures Paleontology-3a and Paleontology-3b. Implementation of avoidance and minimization measure Paleontology-1 would further avoid and minimize impacts to paleontological resources. With the implementation of mitigation measures Paleontology-2, Paleontology-3a, and Paleontology-3b, the Build Alternative's impacts to paleontological resources would be reduced to less than significant levels.

3.2.8 Greenhouse Gas Emissions

CEQA Significance Determinations for Greenhouse Gas Emissions

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact—

Temporary Construction Impacts

Construction greenhouse gas emissions would result from material processing, onsite construction equipment, and traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase. Based on Section 3.4, Climate Change, estimated greenhouse gas emissions associated with project construction would be 78.1 metric tons per year of carbon dioxide equivalent during land clearing/grubbing; 2,986.5 metric tons per year of carbon dioxide equivalent during grading and excavation; 794.0 metric tons per year of carbon dioxide during drainage, utilities, and sub-grade; and 125.0 metric tons per year of carbon dioxide equivalent during paving. This would total 3,983.6 metric tons per year of carbon dioxide equivalent across all project phases during the approximate 48-month construction period (24 months for Phase 1 and 24 months for Phase 2).

Construction activities would comply with all state laws and regulations regarding greenhouse gas emissions reductions. All construction contracts are required to include Caltrans Standard Specifications Sections 7-1.02A and 7-1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and would comply with all California Air Resources Board emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce greenhouse gas emissions. The proposed Build Alternative would comply with State laws and regulations, and construction activities would not emit substantial greenhouse gas emissions. As such, temporary impacts would be less than significant in this regard, and no measures would be required.

Operational Impacts

As detailed in Section 3.4, Climate Change, long-term operational greenhouse gas emissions associated with the project would be generated by the operation of motor vehicles along area roadways. Existing mobile-source greenhouse gas emissions within the project study area total approximately 6,126.72 metric tons per year of carbon dioxide equivalent per year. Under No-Build Alternative opening year 2025 and design year 2045 conditions, mobile-source greenhouse gas emissions within the project study area total approximately 5,528.60 metric tons per year of carbon dioxide equivalent/year and 4,414.71 metric tons per year of carbon dioxide equivalent/year, respectively. In comparison to No-Build Alternative conditions, Phase 1 of the

Build Alternative 1 would result in a slight reduction in greenhouse gas emissions under year 2025 opening year conditions. However, by the year 2045, Phase 1 of the Build Alternative is projected to result in an increase in greenhouse gas emissions of approximately 146.99 metric tons per year of carbon dioxide equivalent/year when compared to the No-Build Alternative. This increase in emissions is anticipated to be somewhat offset by reductions in congestion and associated vehicle emissions. By comparison, Phase 2 of the Build Alternative is projected to result in reductions of 351.11 metric tons per year of carbon dioxide equivalent/year under opening year 2025 conditions and 69.69 metric tons per year of carbon dioxide equivalent/year under design year 2045 conditions. When compared to Phase 1 of the Build Alternative, Phase 2 of the Build Alternative would result in slight reductions in overall emissions. Refer to Table 3.2 in Section 3.3 below for a comparative summary of project-area operational greenhouse gas emissions.

It should be noted that Phase 1 of the project was originally expected to complete construction and be open to traffic by 2025 and is now anticipated to be open to traffic by 2029. Phase 2 of the proposed project was originally expected to complete construction and be open to traffic by 2045 and is now anticipated to be open to traffic by 2049. Based on the Technical Memorandum to the Air Quality Report, the updated project opening years for both Phase 1 and Phase 2 would not alter the conclusions of the Air Quality Report. Because the changes in the opening years would not alter the conclusions and for consistency with the Air Quality Report, the original opening years are referenced throughout this section.

As discussed, the future Build Alternative (Phase 1 and Phase 2) would result in decreased metric tons per year of carbon dioxide equivalent emissions when compared to existing conditions. Emissions in the opening year and design year scenarios would decrease when compared to the No-Build scenario except for Phase 1 of the Build Alternative during the design year scenario. However, the increase in emissions is anticipated to be somewhat offset by reductions in congestion and associated vehicle emissions. While construction activities would result in a slight increase in greenhouse gas emissions during construction, operational emissions under the Build Alternative (Phase 1 and Phase 2) would primarily decrease when compared to the No-Build scenario. Additionally, implementation of the proposed project, along with other projects included in the San Luis Obispo Council of Governments' 2019 Regional Transportation Plan/Sustainable Communities Strategy, would maximize overall performance and generally reduce congestion. As such, impacts in this regard would be less than significant, and no measures would be required.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact—As discussed in the Air Quality Report, State Route 46 East/Union Road Intersection Improvements (April 2023), the project would comply with applicable state, federal, and/or local rules and regulations developed as a result of implementing control and mitigation measures proposed as part of their respective State Implementation Plans, as well as Standard Specifications Section 14-9 (Caltrans 2022), which would require compliance with air pollution control rules, regulations, ordinances, and statutes, including the California Air Resources Board's emission-reduction requirements and idling limitations for construction equipment and vehicles. These measures would result in reductions in construction-generated GHG emissions. Further, based on Section 3.3, Climate Change, and applicable sources therein, project implementation would not conflict with any applicable plan, policy, or regulation adopted to reduce greenhouse gas emissions. No impact would occur in this regard, and no measures would be required.

3.2.9 Hazards and Hazardous Materials

CEQA Significance Determinations for Hazards and Hazardous Materials

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact—The Build Alternative would not create a substantial hazard to the public or the environment through any reasonably foreseeable hazard to the public through the routine transport, use, or disposal of hazardous materials. During operations, it is anticipated that any use of hazardous materials onsite would consist of routine hazardous materials such as paint, solvents, and fuel for maintenance activities and landscaping. All such materials would be used, handled, stored, and disposed of in accordance with applicable local, state, and federal regulations. The routine transport, use, and disposal of hazardous materials under the Build Alternative would be similar to what occurs under existing conditions. Potential hazardous material impacts in this regard are considered less than significant, and no measures would be required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact—As detailed in Section 2.2.5, Hazardous Waste/Materials, no regulatory properties have been reported on the project site, nor have any known corrective actions, restorations, or remediations been planned or completed. The project site has not been under investigation for violation of any environmental laws, regulations, or standards, as identified in the databases reported by Environmental Data Resources.

Based on the Phase 1 Initial Site Assessment, several onsite conditions could result in a risk of upset regarding hazardous materials. These conditions relate to building materials with asbestos-containing materials and lead-based paints; traffic striping materials; aerially deposited lead; and unknown fill. As noted within Section 2.2.5, Hazardous Waste/Materials, the project would implement minimization measures Hazards-1 and Hazards-2 to minimize impacts in this regard. Additionally, the project would adhere to Caltrans Standard Special Provisions, Section 14-11.12, Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue, Section 36-4, Residue Containing Lead from Paint and Thermoplastic, Section 84-9.03B, Remove Traffic Stripes and Pavement Markings Containing Lead, Section 14-11.02, Discovery of Unanticipated Asbestos and Hazardous Substances, and Title 29, Part 1910.120, Hazardous Waste Operations and Emergency Response of the Code of Federal Regulations. Implementation of minimization measures Hazards-1 and Hazards-2 would further avoid and minimize impacts regarding hazardous waste and materials. Impacts would be less than significant in this regard.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

No Impact—Based on the Phase 1 Initial Site Assessment prepared for this project, the nearest school to the project site is Kermit King Elementary School (located at 700 School House Circle, approximately 1.5 miles west of the project site). No impact would occur in this regard, and no measures would be required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact—Based on the Phase 1 Initial Site Assessment, the proposed project site is not on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. No impacts would occur, and no measures would be required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less Than Significant Impact—The Paso Robles Municipal Airport is approximately 1 mile north of the project site at 4912 Wing Way, Paso Robles. A large portion of the project site is within the airport influence area boundary. Land use planning areas within the Airport Planning Area consist of six safety zones. As identified in Figure 3, Airport Safety Zone, of the Paso

Robles Municipal Airport Land Use Plan, most of the project site is within Safety Zone 4 (Outer Approach/Departure Zone), and a small portion of the project site is within Safety Zone 3 (Turning and Sideline Zone).

The project would be designed in accordance with Policies S-1 through S-6 as outlined in Section 4.5.3, Safety Policies of the Paso Robles Municipal Airport Land Use Plan. The project would not include new land uses or buildings that would have the capacity to result in safety impacts associated with airport operations. Further, as discussed above, the project would result in less than significant impacts regarding potential hazardous materials. As such, impacts in this regard would be less than significant, and no measures would be required (Sources: City of Paso Robles, Paso Robles Municipal Airport Airport Influence Area (map), https://www.prcity.com/documentcenter/view/14508/airport-influence-area-aia-pdf, July 2008; City of Paso Robles, Paso Robles Municipal Airport Land Use Plan Airport Safety Zones, Figure 3, https://www.prcity.com/documentcenter/view/14529/figure-3-airport-land-use-planning-zones-pdf, November 2006).

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact—The County of San Luis Obispo developed the San Luis Obispo Emergency Operations Plan to address the planned response as an extension of the State Emergency Plan. The Emergency Operations Plan provides an overview of how emergency management is coordinated Countywide and addresses concerns related to the continuity of government or other emergency management issues for the County. Locally, the City of Paso Robles developed a Local Hazard Mitigation Plan, which outlines agencies and technical resources available for emergency services in the event of a natural or human-made disaster.

The project is anticipated to result in beneficial impacts in relation to vehicular movement, connectivity, and mobility in the area; this would result in associated benefits related to emergency response and evacuation over the long term. Temporary disruption of traffic would occur during the short-term construction process. Temporary closures and/or detours may occur during periods of the construction phase. However, implementation of the Transportation Management Plan identified in Section 2.1.10, Traffic and Transportation/Pedestrian Bicycle Facilities, would implement alternate route strategies to minimize impacts to roadways and reduce potential congestion. These strategies would help improve circulation during the construction phase of the project to maintain adequate access for emergency responders or evacuation purposes. As such, less than significant impacts would occur in this regard.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No Impact—Based on the California Department of Forestry and Fire Protection Very High Fire Hazard Severity Zones in Local Responsibility Area (map) (dated July 22, 2009, for San Luis Obispo County, California, and incorporated areas), the project site is not within a "Very High Fire Hazard Severity Zone" or in a "Local Responsibility Area." As such, it is highly unlikely that wildfire risks would result from construction activities. Additionally, the project is not anticipated to result in permanent impacts related to exacerbation of fire hazards because the project would construct a new interchange and would not include the extension of infrastructure through an area that is subject to high fire risk. No impacts would occur in this regard.

3.2.10 Hydrology and Water Quality

CEQA Significance Determinations for Hydrology and Water Quality

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality?

Less Than Significant Impact—As discussed in the Water Quality section of Chapter 2, the construction of the Build Alternative would not violate any water quality standards or waste discharge requirements. The project would be subject to various water quality requirements of the State Water Resources Control Board and Regional Water Quality Control Board (minimization measures Water Quality-1 through Water Quality-5). Requirements would include the Regional Water Quality Control Board-issued National Pollutant Discharge Elimination System permits, which would require the implementation of Best Management Practices during project construction and operation. Implementation of minimization measures Water Quality-1 through Water Quality-5 would further avoid and minimize impacts regarding water quality.

The project would not result in substantial water quality impacts to downstream receiving bodies, the Huer Huero Creek, and the Pacific Ocean. Pursuant to Caltrans' National Pollutant Discharge Elimination System permit requirements (minimization measure Water Quality-1), the project would be required to implement a range of design pollution prevention, treatment, and maintenance Best Management Practices. Design Pollution Prevention Best Management Practices (minimization measure Water Quality-4) are measures required under the Caltrans Municipal Separate Storm Sewer Systems Permit that focus on reducing or eliminating runoff and controlling sources of pollutants during project operation (for example, slope/surface protection systems, concentrated flow conveyance systems, preservation of existing vegetation, et cetera). These Best Management Practices would

meet the objective of maximizing vegetated surfaces, preventing downstream erosion, and stabilizing soil areas. The selection of Best Management Practices would be determined during the final design.

Impacts related to water quality would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact—Per the California Department of Water Resources Water Data Library, the nearest groundwater well with current groundwater level data is approximately 3.6 miles northeast of the project. The depth to groundwater at this well in April 2019 was approximately 215 feet.

As a roadway project, the Build Alternative would not directly deplete groundwater supplies. As noted in Section 2.2.2, Water Quality and Stormwater Runoff, project implementation would result in an increase in impervious surface area. The project would implement Design Pollution Prevention Best Management Practices (for example, slope/surface protection systems, concentrated flow conveyance systems, preservation of existing vegetation, et cetera) that would prevent downstream erosion, and stabilize soil areas during roadway operations. Therefore, the project would not indirectly deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. No impacts would occur in this regard, and no measures would be required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation onsite or offsite;

Less Than Significant Impact—The proposed project would not substantially alter the drainage characteristics of the project area. As discussed in the Hydrology and Floodplain section of Chapter 2, steep slopes that would be prone to erosion exist onsite at the following locations:

- Existing State Route 46 East (State Route 46)/Union Road intersection;
- Existing Huer Huero Creek Bridge abutments and embankments;
- Existing State Route 46/Airport Road intersection;
- Proposed Union Road roundabout south of the proposed State Route 46 eastbound off-ramp and on-ramp; and
- Proposed Paso Robles Boulevard cul-de-sac.

As discussed in the Geology/Soils/Seismic/Topography section in Chapter 2, surficial soils on existing slopes within the project limits are mostly sandy soils with gravel and are susceptible to erosion. The erosion potential of the existing slope faces was observed to be moderate to high. Further, according to the Structure Preliminary Geotechnical Report, scour depths for bridge piers in the creek were estimated at 8 to 10 feet deep. Within the 100-year flood zone, the project bridge foundations (pile caps) would be set at a minimum of 5 feet below the estimated scour depth.

The project would be required to adhere to existing temporary construction-related National Pollutant Discharge Elimination System requirements, which would require the preparation and implementation of a Stormwater Pollution Prevention Plan (minimization measure Water Quality-2) to further minimize impacts regarding erosion and siltation onsite and offsite. The Stormwater Pollution Prevention Plan would specify Best Management Practices to be used during project construction to minimize or avoid water pollution, including erosion. Impacts would be further minimized through standard practices such as temporary large sediment barriers, soil binders, and rock slope protection (Caltrans Standard Specifications Sections 13-05 and 21), as itemized in Chapter 1 of this document. Additionally, as discussed above, Operational Best Management Practices would be implemented to further minimize the potential impacts of erosion and siltation. Most of the slopes proposed as part of the Build Alternative would be sloped at a ratio of 4 horizontal to 1 vertical or flatter. Fill embankments would be globally stable for a maximum slope gradient of a ratio of 2 horizontal to 1 vertical or flatter, and fill slopes with a gradient of a ratio of 2 horizontal to 1 vertical would be surficially stable. These areas would be maintained with erosion protection and drainage control in accordance with Section 21 of Caltrans Standard Specifications (2018). Additionally, pursuant to Caltrans' National Pollutant Discharge Elimination System permit requirements, the project would be required to implement a range of design Best Management Practices required under the Caltrans Municipal Separate Storm Sewer Systems Permit that focus on preventing erosion during project operation (for example, slope/surface protection systems, preservation of existing vegetation, et cetera). The project would adhere to the earthwork recommendations provided in the Structure Preliminary Geotechnical Report. As such, potential impacts regarding soil erosion would be less than significant.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;

Less Than Significant Impact—As noted previously, the proposed project would not substantially alter the drainage characteristics of the project area. Portions of the project site located within the Huer Huero Creek are classified as Zone A. Zone A are areas that have a 1 percent probability of flooding every year (also known as the "100-year floodplain") and where predicted flood water elevations have not been established. Properties in Zone A are

considered to be at high risk of flooding under the National Flood Insurance Program. Areas outside the Huer Huero Creek are identified as Zone X. Zone X areas are characterized as areas determined to be outside the 0.2 percent annual chance of flood. Properties in Shaded Zone X are considered to be at low risk of flooding under the National Flood Insurance Program.

The Hydraulic Analysis determined that the proposed improvements would result in a localized rise in the water surface elevation at the Huer Huero Creek. The allowable change in water surface elevation is a cumulative 1-foot rise over the base flood elevation for Zone A floodplains. The Build Alternative proposes to install storm drainage features to reduce the velocities and volume of runoff to pre-project conditions. The drainage features are expected to decrease the sediment loading potential to pre-project conditions. Accordingly, the Huer Huero Creek water surface level would not exceed the allowable 1-foot rise prescribed by the Federal Emergency Management Agency regulations. As a result, the project would not be required to file a Conditional Letter of Map Revision during the final design.

Further, as discussed in the Hydrology and Floodplain section of Chapter 2, a “significant encroachment” of the floodplain, as defined in 23 Code of Federal Regulations 650.105, would not occur under the Build Alternative. No floodplain development would occur as part of the project. Additionally, within the 100-year flood zone, the project bridge foundations (pile caps) would be set at a minimum of 5 feet below the estimated scour depth. Project implementation is not anticipated to result in long-term degradation or erosion. In addition, there is no longitudinal encroachment associated with the Build Alternative. The proposed improvements associated with the Build Alternative are classified as “Low Risk.” As such, the potential risk of flooding would be less than significant, and no measures would be required.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less Than Significant Impact—According to the Water Quality Assessment Report prepared for the project, the approximate acreage of net new impervious surface as a result of the proposed project would be 6.3 acres for Phase 1 and 16.8 acres for Phase 2. Phase 1 would result in a total impervious area of 18.9 acres, and Phase 2 would result in a total impervious area of 38.2 acres. When the total impervious area of the Build Alternative is compared to the size of the Huer Huero Creek Watershed (over 103,000 acres), this equates to less than 0.001 percent of the watershed area. Thus, the increase in impervious surface area would not result in a substantial increase in runoff, leading to a negative impact on water quality.

As discussed in Response a) above, the project would not result in substantial water quality impacts to downstream receiving bodies, the Huer

Huero Creek, and the Pacific Ocean. Adherence to the Caltrans Municipal Separate Storm Sewer Systems Permit, which would require the implementation of various Best Management Practices to minimize operational water quality impacts, would further minimize impacts regarding stormwater drainage capacity, and increased polluted runoff would be less than significant.

iv) Impede or redirect flood flows?

Less Than Significant Impact—Refer to Response 3.2.10(c)(ii) above.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less Than Significant Impact—Refer to Response 3.2.10(c)(ii) and (iv) above for a discussion on impacts that pertain to flood-related hazards.

The nearest major waterbody to the project site is Lake Nacimiento, located approximately 14.2 miles to the northwest. The project area is approximately 20 miles east of the Pacific Ocean and more than 16 miles east of the Whale Rock Reservoir (the nearest substantial enclosed waterbody to the project site); therefore, tsunamis and seiche are not considered geologic hazards for the project site. Impacts in this regard would be less than significant, and no measures would be required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact—As discussed in Responses 3.2.10(a) and (b) above, the project would comply with the requirements of the National Pollutant Discharge Elimination System and Regional Water Quality Control Board. As a roadway project, the Build Alternative would not have the capacity to conflict with a water quality control plan or groundwater management plan for the region. Therefore, no impact would occur in this regard.

3.2.11 Land Use and Planning

CEQA Significance Determinations for Land Use and Planning

Would the project:

a) Physically divide an established community?

No Impact—The project involves roadway improvements at the intersection of State Route 46 East (State Route 46) and Union Road, which are existing linear infrastructure facilities. As the project site is already identified as a future roadway project in the General Plan Circulation Element and other local plans, the project would not be considered a barrier between developed

uses. Rather, the project would result in a beneficial impact in this regard because it would improve existing traffic delays, connectivity, and mobility at the proposed interchange and in the project area. Additionally, the project would construct new bike lanes and sidewalks on Union Road, where none currently exist, so that the existing physical barriers to walking and bicycling between and within neighborhoods would be reduced, and connectivity would be enhanced. As such, the proposed project would not physically divide an established community. No impact would occur, and no measures would be required.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact—The proposed project would construct a new State Route 46/Union Road interchange, which would accommodate traffic for existing and planned development in the area. As discussed in the Community Impact Assessment prepared for the project, Phase 1 and Phase 2 of the Build Alternative would be consistent with all applicable state, regional, and local plans and programs; refer to Section 2.1.1, Existing and Future Land Use. Thus, no impacts would occur, and no measures would be required.

3.2.12 Mineral Resources

CEQA Significance Determinations for Mineral Resources

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact—As discussed in Section 2.2.3, Geology, Soils, Seismicity, and Topography, no mineral resources are known to exist either on the site or in the project area. Additionally, based on the San Luis Obispo County Land Use View database, no County or Environmental Protection Agency mines or an identified energy/extractive area are located in the project vicinity. Therefore, project implementation would not result in any significant impacts to mineral resources or the loss of any locally important mineral resource site, and no measures would be required (Sources: California Geological Survey, Updated Mineral Land Classification Map for Concrete-Grade Aggregates in the San Luis Obispo-Santa Barbara Production-Consumption Region, California-North Half (Plate 1-A), ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/sr_215/sr_215_plate1a.pdf, 2011; San Luis Obispo County, Land Use View, https://gis.slocounty.ca.gov/sites/luview.htm, accessed May 1, 2020).

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact—Refer to Response 3.2.12(a) above.

3.2.13 Noise

CEQA Significance Determinations for Noise

Would the project result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?

Less Than Significant Impact—

Temporary Construction Impacts

During project construction, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. As analyzed in Section 2.2.7, Noise, construction equipment can generate intermittent noise levels ranging from 77 to 90 decibels A maximum sound level at 50 feet. At this same distance, average-hourly equipment noise levels range from approximately 73 to 82 A-weighted decibels equivalent sound level. Noise produced by construction equipment typically decreases at a rate of approximately 6 A-weighted decibels per doubling of distance from the source. Additionally, construction equipment noise levels would vary depending on various factors, such as the activities conducted and the type and number of pieces of equipment operating. No adverse construction noise impacts are anticipated during project construction, given that construction would be conducted in accordance with Caltrans Standard Specifications Section 14.8-02, Noise Control, and applicable local noise standards. These measures provide guidance on maximum noise levels resulting from work activities and allowable construction activities. Further, construction noise would be short-term, intermittent, and largely overshadowed by local traffic noise along State Route 46 East (State Route 46) and nearby roadways. Accordingly, temporary impacts related to noise would be less than significant, and no measures would be required.

Operational Impacts

As discussed in Section 2.2.7, Noise, traffic noise modeling was conducted to determine whether design-year traffic noise levels would exceed the established Noise Abatement Criteria. Refer to Table 2.41 for a summary of Noise Abatement Criteria Activity Categories and their respective land use categories.

Predicted design-year traffic noise levels with the project at the outdoor activity area of single-family land uses (Receivers R-24, R-25, R-26, R-30, and R-31) would range from 57 to 61 A-weighted decibels equivalent sound level and would not approach or exceed the Noise Abatement Criteria of 67 A-weighted decibels equivalent sound level or result in a substantial increase in noise. Per the Caltrans Traffic Noise Analysis Protocol, “approach” is also defined as when the sound level is within 1 A-weighted decibel of the Noise Abatement Criteria; for example, for the criteria of 67 A-weighted decibels, 66 A-weighted decibels is considered approaching, whereas 65 A-weighted decibels is not. Impacts in this regard would be less than significant.

Predicted design-year traffic noise levels with the project at the Category C campground, park, and recreation area land uses (Wine Country Recreational Vehicle Resort; Receivers R-27, R-28, R-29, and R-43 to R-60) would range from 60 to 69 A-weighted decibels equivalent sound level and would exceed the Noise Abatement Criteria of 67 A-weighted decibels equivalent sound level at the campground (in other words, the Wine Country Recreational Vehicle Resort). As a result, consideration of noise abatement is required for the Wine Country Recreational Vehicle Resort. As analyzed in Section 2.2.7, Noise, the existing noise barrier, Noise Barrier Westbound-1 (not constructed by Caltrans), would not be sufficient to reduce exterior traffic noise levels to the applicable Noise Abatement Criteria of 67 A-weighted decibels equivalent sound level. Based on the Noise Abatement Decision Report prepared for the project, a new noise barrier, Noise Barrier Westbound-2, was considered next to the Wine Country Recreational Vehicle Resort. Construction of noise barrier Westbound-2 was determined not to meet the reasonable cost allowance according to Caltrans' criteria and is not recommended. Noise impacts in this regard would be less than significant.

Predicted design-year traffic noise levels with the project at the outdoor activity areas of the hotel, restaurant, winery, and amusement park land uses (Receivers R-1, R-4, R-21, R-22, R-32, R-33, R-34, and R-35) would range from 56 to 66 A-weighted decibels equivalent sound level and would not approach or exceed the Noise Abatement Criteria of 72 A-weighted decibels equivalent sound level or result in a substantial increase in noise. As a result, impacts in this regard would be less than significant.

Predicted design-year traffic noise levels with the project at the industrial, retail, and warehouse (Receivers R-2, R-3, R-5 to R-20, R-23, and R-36 to R-42) would range from 65 to 72 A-weighted decibels equivalent sound level. There are no applicable Noise Abatement Criteria for industrial, retail, or warehouse land uses in the project area, and the traffic noise levels would not result in a substantial increase in noise. As a result, impacts in this regard would be less than significant.

Overall, the proposed Build Alternative would not expose persons to or generate noise levels in excess of standards established in the local general

plan or noise ordinance or applicable standards of other agencies upon implementation of existing regulations. As such, impacts would be less than significant.

b) Generation of excessive ground-borne vibration or ground-borne noise levels?

Less Than Significant Impact With Mitigation Incorporated—

Ground-borne vibration levels associated with construction equipment are summarized in Table 2.45. As analyzed in Section 2.2.7, Noise, construction equipment often associated with road development projects would generate ground vibration levels of approximately 0.21 in/sec peak particle velocity (94 Vibration Level), or less, at 25 feet. The highest vibration levels would be associated with the use of vibratory rollers. However, vibration levels associated with vibratory rollers would not occur for an extended duration at any one location and would operate more than 25 feet from nearby buildings.

As discussed in Section 2.1.12, Cultural Resources, the Johnson House could be subject to temporary construction-related vibration impacts. The Johnson House is treated as a Category 4 building; the peak particle velocity threshold associated with ground-borne vibrations for Category 4 buildings is 0.12 peak particle velocity inches per second. As such, vibration-reducing construction measures (avoidance and minimization measures Cultural Resources-2 through Cultural Resources-4) would be implemented as CEQA mitigation near the Johnson House which is considered a historic-era structure along the northerly side of Union Road, approximately 0.25 mile south of the existing State Route 46/Union Road intersection to further avoid and minimize construction vibration impacts. As such, impacts would be less than significant with mitigation.

Operational Impacts

On-road vehicles are typically not considered to be significant sources of ground vibration that would cause structural damage or increased levels of annoyance to nearby land uses. As a result, long-term operational activities associated with the proposed project would not involve using equipment or processes that would result in potentially adverse levels of ground vibration. No substantial long-term vibration impacts would occur with the implementation of the proposed Build Alternative. Impacts would be less than significant, and no measures would be required.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact—The Paso Robles Municipal Airport is approximately one mile north of the project site at 4912 Wing Way. Based on Figure 2, Paso Robles Municipal Airport Land Use Plan Airport Noise Contours, in the Airport Land Use Plan for the Paso Robles Municipal Airport, the eastern half of the proposed development footprint is located within the 55 decibels A noise contour, while the western portion is located outside of an airport noise contour. An outdoor noise level of 55 decibels A would be comparable to quiet urban daytime noise; refer to Figure 2-29, Noise Levels for Common Activities. Noise mitigation is required only for moderate noise-sensitive projects and local actions that are inside the airport's 55 decibels A noise contour. As a transportation improvement project, the project would not introduce any permanent residents or workers in the project area and would not expose people or workers to excessive noise levels associated with the Paso Robles Municipal Airport. As such, no impacts would occur.

3.2.14 Population and Housing

CEQA Significance Determinations for Population and Housing

Would the project:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)?

Less Than Significant Impact—The project improvements include the construction of an overcrossing and partial cloverleaf interchange at the intersection of Union Road and State Route 46. Although the implementation of the Build Alternative would reduce traffic delays, enhance connections to State Route 46, and improve accessibility, the proposed improvements are included in the General Plan Circulation Element, and as such, unplanned future development is not expected to occur with project implementation. Based on the planned land use designations (residential, commercial, retail, industrial, and recreational), projected growth for the area, and planned projects identified in the study area, planned growth in the study area is anticipated to occur whether or not the project is constructed. As such, a less than significant impact to unplanned population growth would occur in this regard. No measures would be required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Less Than Significant Impact—The proposed project would result in temporary construction easements and permanent acquisition of real property, including a residential relocation. The affected parcels include vacant land and properties with residential or commercial structures.

Temporary Construction Impacts

Tables 1-2 and 1-4 provide a list of all parcels that would be potentially affected by temporary construction easements and permanent right-of-way acquisition associated with Phase 1 and Phase 2 of the Build Alternative. A total of 61,503 square feet (1.412 acres) for Phase 1 and 45,435 square feet (1.043 acres) for Phase 2 would be temporarily acquired during project construction. No temporary residential or business relocations or displacements would occur under either Phase 1 or Phase 2 of the Build Alternative. All Temporary Construction Easement areas would be returned to their existing use upon completion of construction.

Operational Impacts

Tables 1-3 and 1-5 provide a list of all parcels potentially affected by permanent right-of-way acquisitions that may occur under the Build Alternative. A total of 48,371 square feet (1.11 acres) for Phase 1 and 1,189,170 square feet (27.30 acres) for Phase 2 would be permanently acquired during project construction. The project would result in one residential relocation (Assessor's Parcel Number 025-371-017) and one business relocation (Paso Robles Pet Boarding, Assessor's Parcel Number 025-362-004). Real property acquisition would be acquired in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Less than significant impacts would occur in this regard.

3.2.15 Public Services

CEQA Significance Determinations for Public Services

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

No Impact—Fire protection services and emergency medical/paramedic services in the City of Paso Robles are provided by the Paso Robles Department of Emergency Services, headquartered at 900 Park Street, Paso Robles, California. The project would construct a new interchange at Union Road and State Route 46 East (State Route 46) and would not result in the development of any new land uses. Thus, the project would not result in the need for new or physically altered fire protection facilities. Access to developed areas near the project may potentially be constrained intermittently during construction. A Transportation Management Plan has been included as a project feature to minimize potential traffic-related impacts during project

construction. Travel through the project area would be maintained for emergency service vehicles during project construction. The Caltrans Transportation Management Plan Guidelines require consideration and notification of emergency service providers to provide adequate emergency access during the temporary construction process. With the preparation of the Transportation Management Plan during the Plans, Specifications, and Estimates phase, temporary impacts related to temporary construction activities and effects on the provision of emergency services would be reduced. The proposed project would not result in the provision of new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts. No impact would occur, and no measures would be required.

Police protection?

No Impact—Police protection services are provided by the Paso Robles Police Department, which is also headquartered at 900 Park Street, Paso Robles, California. The project would construct a new interchange at Union Road and State Route 46 and would not result in the development of any new land uses. Thus, the project would not result in the need for new or physically altered police protection facilities. Access to developed areas near the project may potentially be constrained intermittently during construction. A Transportation Management Plan has been included as a project feature to minimize potential traffic-related impacts during project construction. Travel through the project area would be maintained for emergency service vehicles during project construction. The Caltrans Transportation Management Plan Guidelines require consideration and notification of emergency service providers to provide adequate emergency access during the temporary construction process. With the preparation of the Transportation Management Plan during the Plans, Specifications, and Estimates phase, temporary impacts related to temporary construction activities and effects on the provision of emergency services would be reduced. The proposed project would not result in the provision of new or physically altered police protection facilities, the construction of which could cause significant environmental impacts. No impact would occur, and no measures would be required.

Schools?

No Impact—No additional public facilities would be needed to serve the community resulting from the Build Alternative. Based on the Community Impact Assessment (May 2023) prepared for the project and as discussed in Section 2.1.5, Growth, it is anticipated that the proposed project could influence growth. However, because this anticipated growth would be planned as envisioned in the City's General Plan, project improvements would not induce substantial or unplanned growth. As such, the project would not result in the generation of new residents or populations requiring additional services

for schools or other public facilities. No impacts to schools or other public facilities would occur, and no measures would be required.

Parks?

Less Than Significant Impact—Barney Schwartz Park is the only public park within 0.5 mile of the project site, approximately 0.25-mile southeast of the State Route 46/Union Road intersection. No other recreational facilities in the study area are within this 0.5-mile range.

Access to Barney Schwartz Park is provided via two driveways along Union Road. The driveway at the northwestern corner of the park provides access to three of the parking lots. The driveway at the north/central portion of the park provides access to the fourth parking lot. The Build Alternative would include realignment of the Barney Schwartz Park northwestern driveway to accommodate the new roundabout configuration proposed south of the new State Route 46/Union Road interchange. Realigning the driveway would include realigning the sidewalk and the curb and gutter to tie in with the existing Union Road facilities. It would also involve removing the existing center median within the driveway, removing landscaping within the parking lot, and restriping the parking lot to update the parking configuration in the northwestern parking lot. The project would result in the loss of 11 parking spots in the northwestern parking lot. To minimize construction impacts, the Build Alternative would incorporate a stage construction approach, where only half of the driveway improvements would occur at a single time (minimization measure Parks and Recreation-1). While half of the driveway would be changed to accommodate project improvements, the other half would remain open for recreational access. The Build Alternative would not impact the northern/central or northeastern driveways along Union Road. As such, park access from Union Road would be maintained at all times. In addition, the construction duration of the improvements to the northwest driveway would be minimal. The northwest driveway/access point would be restored to pre-project conditions upon completion of the construction process, and the provision of sidewalks through the interchange is anticipated to result in beneficial recreational impacts over the long term. Short-term impacts to park operations are considered minimal and would not impair existing activities, features, or attributes of the existing park facility. As such, less than significant impacts to park facilities would occur.

Other public facilities?

No Impact—No additional public facilities would be needed to serve the community resulting from the Build Alternative. Based on the Community Impact Assessment (May 2023) prepared for the project and as discussed in Section 2.1.5, Growth, it is anticipated that the proposed project could influence growth. However, because this anticipated growth would be planned as envisioned in the City's General Plan, project improvements would not

substantially induce growth. As such, the project would not result in the generation of new residents or populations capable of requiring additional services for schools or other public facilities. No impacts to schools or other public facilities would occur, and no measures would be required.

3.2.16 Recreation

CEQA Significance Determinations for Recreation

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact—The project involves roadway improvements that would generally not be expected to increase the use of existing neighborhood and regional parks or other recreational facilities. As discussed above, Barney Schwartz Park is approximately 0.25-mile southeast of the State Route 46 East (State Route 46)/Union Road intersection. The Build Alternative would include realignment of the Barney Schwartz Park northwestern driveway to accommodate the new roundabout configuration proposed south of the new State Route 46/Union Road interchange. Realigning the driveway would include realigning the sidewalk and the curb and gutter to tie in with the existing Union Road facilities. It would also involve removing the existing center median within the driveway, removing landscaping within the parking lot, and restriping the parking lot to update the parking configuration in the northwestern parking lot. The project would result in the loss of 11 parking spots in the northwestern parking lot. To minimize construction impacts at the northwest driveway of Barney Schwartz Park, minimization measure Parks and Recreation-1 would require a stage construction approach, where only half of the driveway improvements would occur at a single time. While half of the driveway would be realigned to accommodate project improvements, the other half would remain open for recreational access. The Build Alternative would not impact the northern/central or the northeastern driveways along Union Road. As such, park access from Union Road would be maintained at all times. In addition, the construction duration of the improvements to the northwest driveway would be minimal. The northwest driveway/access point would be restored to pre-project conditions upon completion of the construction process, and the provision of sidewalks through the interchange is anticipated to result in beneficial recreational impacts over the long term. Short-term impacts to park operations are considered minimal and would not impair existing activities, features, or attributes of the existing park facility. As such, less than significant impacts to existing neighborhoods or regional parks would occur.

The project would include the installation of bicycle and pedestrian facilities, which would improve access and mobility for travelers, enhance connectivity in the project area, and enhance neighborhood cohesiveness with the

provision of access to various community and recreational facilities and amenities. In addition, the bicycle and pedestrian facilities would reduce vehicle miles traveled and improve air quality in the project vicinity. As such, beneficial impacts would occur under the Build Alternative. Less than significant impacts would occur to recreational facilities.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant Impact—Refer to Response 3.2.16(a) above.

3.2.17 Transportation

CEQA Significance Determinations for Transportation

Would the project:

a) Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities?

No Impact—According to the Community Impact Assessment (May 2023), the project would not conflict with a program, plan, ordinance, or policy addressing the circulation system. As noted in Section 2.1.2, the project would be consistent with the San Luis Obispo Council of Governments' 2019 Regional Transportation Plan/Sustainable Communities Strategy and the San Luis Obispo Council of Governments' 2019 Federal Transportation Improvement Program. The project was also determined to be consistent with the goals and policies of the General Plan Circulation Element and the City of Paso Robles Bicycle and Pedestrian Master Plan. The project would result in beneficial impacts related to traffic delays, connectivity, and mobility in the project area and would provide new pedestrian and bicyclist facilities where limited facilities currently exist. Therefore, no impact would occur in this regard.

b) Conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Less Than Significant Impact—Per CEQA Guidelines Section 15064.3, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Per CEQA Guidelines Section 15064.3, subdivision (b)(2), transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. At the time the Traffic Operations Analysis Report was conducted, Level of Service was the methodology used to

analyze traffic impacts, and the project was found to have a less than significant impact on traffic.

While the proposed project would improve access to, from, along, and across State Route 46 at/through the Union Road intersection and reduce delays and improve reliability and operations in the vicinity of the State Route 46 and Union Road intersection and State Route 46 and Airport Road intersection, the project itself would not generate a substantial number of new trips. The Build Alternative would not substantially increase capacity or vehicle miles traveled. Additionally, the project would be consistent with the San Luis Obispo Council of Governments' 2019 Regional Transportation Plan/Sustainable Communities Strategy and the San Luis Obispo Council of Governments' 2019 Federal Transportation Improvement Program; this plan and implementing program are intended to provide transportation efficiency and multimodal travel that reduces vehicle use and thereby reduces vehicle trips. The impact would be less than significant in this regard, and no measures would be required.

c) Substantially increase hazards due to a geometric design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?

Less Than Significant Impact—The proposed State Route 46/Union Road intersection improvements would result in changes to the geometric design within the project limits that would include curves and intersections. However, the project is subject to Caltrans review for consistency with safety standards (such as the Highway Design Manual), and compliance with these standards would ensure that impacts related to hazardous design features would remain less than significant. As such, less than significant impacts would occur in this regard.

d) Result in inadequate emergency access?

Less Than Significant Impact—Full highway and lane closures would be required during nighttime and on weekends to accommodate roadway and structure construction during Phase 1 and Phase 2 of the project. As discussed in Section 2.1.10, Traffic and Transportation/Pedestrian Bicycle Facilities, temporary lane closures are anticipated throughout the 24 months of Phase 1 construction and 24 months of Phase 2 construction. The project would implement a Transportation Management Plan during the Plans, Specifications, and Estimates phase. The Transportation Management Plan would implement alternate route strategies to minimize impacts to roadways and reduce potential congestion. As discussed in Section 2.1.9, Utilities and Emergency Services, as part of the Transportation Management Plan, the project would provide adequate emergency access during the temporary construction process. Therefore, a less than significant impact would occur.

3.2.18 Tribal Cultural Resources

CEQA Significance Determinations for Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

Less Than Significant Impact With Mitigation Incorporated—As noted above in Section 2.1.11, the only resource identified within the Area of Potential Effects that appears eligible for listing in the California Register of Historical Resources is the Johnson House. No other resources were determined to be listed or eligible for listing in the California Register or in a local register of historical resources. The Johnson House has not been identified as a tribal cultural resource.

Because 100 percent of the Area of Potential Effects could not be surveyed, Caltrans, pursuant to Programmatic Agreement Stipulation 12, is taking a phased approach to the identification, evaluation, and application of the Criteria of Adverse Effect for this undertaking. As part of this approach, the project has included the preparation of a project-specific Programmatic Agreement between Caltrans and the State Historic Preservation Officer, in addition to a Cultural Resources Management Plan. The Programmatic Agreement and Cultural Resources Management Plan provide guidance on a phased approach to ensure greater efficiency in the compliance process while enabling components of the Build Alternative to move forward. The phasing plan includes field evaluations of newly identified archaeological resources on parcels that have not previously been surveyed. Caltrans will implement a strategy of minimization and/or avoidance of direct or indirect effects on any resources that appear to meet the National Register and/or California Register criteria of eligibility.

As discussed in Section 2.1.1, minimization measure Cultural Resources-1 would require that the project adheres to the requirements of the Programmatic Agreement and Cultural Resources Management Plan to minimize potential impacts to tribal cultural resources as a result of the Build Alternative. With the implementation of minimization measure Cultural Resources-1 as CEQA mitigation, the project would not cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources as defined in Public Resources Code

Section 5020.1(k). Impacts to tribal cultural resources would be less than significant with mitigation incorporated.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency should consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact With Mitigation Incorporated—In accordance with Assembly Bill 52, Caltrans distributed letters to potentially affected Native American tribes (as identified by the Native American Heritage Commission), notifying each tribe of the opportunity to consult with Caltrans regarding the proposed project. No responses were received. As part of the Supplemental Historic Property Survey Report for the project, letters were distributed again to the same contacts on June 9 and 11, 2021. Two responses were received from the tribes. Refer to Chapter 4.0, Comments and Coordination, of this Initial Study/Environmental Assessment for information regarding efforts undertaken by Caltrans to consult pertinent Native American tribes to identify tribal cultural resources in the archaeological Area of Potential Effects and the Supplemental Area of Potential Effects.

To address concerns identified by tribes under Assembly Bill 52 and further minimize impacts to tribal cultural resources, the project would implement minimization measure Cultural Resources-1. As discussed in Section 2.1.1, minimization measure Cultural Resources-1 would require that the project adheres to the requirements of the Programmatic Agreement and Cultural Resources Management Plan to minimize potential impacts to tribal cultural resources as a result of the Build Alternative.

With the implementation of minimization measure Cultural Resources-1 as CEQA mitigation, the project would not cause a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. Impacts to tribal cultural resources would be less than significant with mitigation incorporated. Impacts to tribal cultural resources would be less than significant with mitigation incorporated.

3.2.19 Utilities and Service Systems

CEQA Significance Determinations for Utilities and Service Systems

Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact—The project proposes relocating existing overhead powerlines, gas lines, telecommunications poles and lines, and water pipelines; refer to Section 2.1.9 for detail regarding utility relocations. Implementation of the project would not include any land uses that would create demand for new or expanded utilities. Coordination with affected utility providers would be conducted during the final design to ensure that utility work required for the project would not disrupt services within the community and that adequate service would be maintained during construction. Based on the Hydrology and Water Quality section of this chapter, the Build Alternative would not result in any substantial impacts related to stormwater drainage. As such, impacts would be less than significant in this regard. No measures would be required.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

No Impact—The use of water during project construction would be limited to water trucked to the site for dust control. The amount of water used during construction would be minimal. Landscaping associated with the proposed project would be drought tolerant and consistent with the existing vegetation in the project area. If landscape irrigation is required, it is not anticipated that the irrigation would result in a substantial increase in the water supply required for the project site. The City's Urban Water Management Plan (July 2021) indicates that the demand from buildout of the City's General Plan would be met by the City's water supply during normal, dry, and multiple dry years. As discussed in Section 3.2.11, Land Use and Planning, the project would be consistent with all applicable state, regional, and local plans and programs, including the City's General Plan. As a result, the project would not require new or expanded entitlements to meet the need for water during project construction and operation. No impact would occur, and no measures would be required.

As a roadway infrastructure improvement, the project would not generate wastewater. Thus, the project would not exceed wastewater treatment requirements, require or result in the construction of new wastewater treatment facilities, or result in the need for a determination by a wastewater treatment provider that it has adequate capacity to serve the project. No impact would occur, and no measures would be required.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the

project's projected demand in addition to the provider's existing commitments?

No Impact—Refer to Response 3.2.19(b) above.

d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

No Impact—Waste collection services in the City are provided by Paso Robles Waste Disposal. Pacific Waste Services operates the City-owned landfill, the Paso Robles Landfill, located at 9000 California-46, Paso Robles. In July 2002, the City joined the regional Integrated Waste Management Authority of San Luis Obispo County, which provides information and education about garbage and recycling, manages the County's hazardous waste disposal programs, and enacts resource management ordinances.

During project construction, waste materials would be collected and properly disposed of at an existing landfill. The construction-generated waste would only occur during the construction period and would be limited in amount. That amount of waste would be minor compared to the total waste disposed of at area landfills on a daily and annual basis. It is anticipated that any waste generated would be accommodated by the Paso Robles Landfill, which has a remaining capacity of 4,216,402 tons and a closing year of 2051 (Source: California Department of Resources Recycling and Recovery, Solid Waste Information System Facility/Site Activity Details, City Of Paso Robles Landfill (40-AA-0001), https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1506?siteID=3168, accessed May 4, 2023). Thus, no impacts would occur in this regard.

Any solid waste generated during the construction of the Build Alternative or collected during normal waste collection activities would be collected, handled, transported, and disposed of consistent with applicable federal, state, regional, and local regulations. No impact would occur in this regard, and no measures would be required.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact—Refer to Response 3.2.19(d) above.

3.2.20 Wildfire

CEQA Significance Determinations for Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact—Based on the California Department of Forestry and Fire Protection (CalFire) Very High Fire Hazard Severity Zones in Local Responsibility Area (map) (dated July 22, 2009, for San Luis Obispo County, California and incorporated areas), the project site is not within a "Very High Fire Hazard Severity Zone" in a "Local Responsibility Area." Additionally, based on the California Department of Forestry and Fire Protection Very High Fire Hazard Severity Zones in SRA (map) (dated November 7, 2007, for San Luis Obispo County, California, and incorporated areas), the project site is not located within a "Very High" Fire Hazard Severity Zone in a "State Responsibility Area." The project would not substantially impair an adopted emergency response plan or emergency evacuation plan. A Transportation Management Plan would be implemented as a project feature to minimize traffic delays for emergency vehicles during the construction period. The Caltrans Transportation Management Plan Guidelines require consideration and notification of emergency service providers to provide adequate emergency access during the temporary construction process. With the preparation of the Transportation Management Plan and by maintaining access to neighborhoods within the project area, temporary impacts related to temporary construction activities and effects related to emergency response and evacuation would be less than significant.

The project would improve access and connectivity for all modes of travel and reduce delays for vehicles. As a result, long-term emergency access and circulation within the project area would be improved. Impacts would be less than significant in this regard.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact—The project site is surrounded by open spaces and agricultural uses. However, based on the CalFire Very High Fire Hazard Severity Zones in Local Responsibility Area (map), the project site is not within a Very High Fire Hazard Severity Zone in a Local Responsibility Area. Additionally, based on the CalFire Very High Fire Hazard Severity Zones in SRA (map), the project site is not within a Very High Fire Hazard Severity Zone in a State Responsibility Area. As such, it is highly unlikely that wildfire risks would result from construction activities. Additionally, the project is not anticipated to result in permanent impacts related to exacerbation of fire hazards because the project would construct a new interchange and would not include the extension of infrastructure through an area that is subject to high fire risk. No impacts would occur in this regard.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact—Refer to Response 3.2.20(b) above.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant Impact—The project would not result in increased risks related to downstream flooding or landslides. As noted in Section 2.2.1, Hydrology and Floodplain, the project would install extended detention basins to reduce the velocities and volume of runoff to pre-project conditions. The project would include drainage improvements to the existing drainage structures along State Route 46 East to help offset the potential increase in runoff, and the surrounding channels of Huer Huero Creek would not exceed capacity. As such, impacts in this regard would be less than significant.

3.2.21 Mandatory Findings of Significance

CEQA Significance Determinations for Mandatory Findings of Significance

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact With Mitigation Incorporated—The potential for the project to result in significant impacts to biological resources, cultural resources, and paleontological resources is discussed in Sections 2.3, 2.1.11, and 2.2.4, respectively.

Based on the information provided in Section 2.3, the project would have the potential to impact sensitive natural communities, jurisdictional waters, plant communities, animal species, and threatened and endangered species. However, upon implementation of mitigation measures Wetlands and Other Waters-1, Wetlands and Other Waters-2, and Threatened and Endangered Species-16, impacts would be less than significant. Implementation of avoidance and minimization measures Natural Communities-1 through Natural Communities-7, Plant Species-1 through Plant Species-3, Animal Species-1 through Animal Species-12, Threatened and Endangered Species-

1 through Threatened and Endangered Species-15 would further avoid and minimize impacts to biological resources.

As noted in Section 2.1.12, the analysis of cultural resources did not identify any archaeological resources in the Area of Potential Effects or Supplemental Area of Potential Effects. However, because 100 percent of the Area of Potential Effects could not be surveyed due to access restrictions, minimization measure Cultural Resources-1 would apply to further minimize impacts to cultural resources. Minimization measure Cultural Resources-1 would require that the project adhere to the requirements of the Programmatic Agreement and Cultural Resources Management Plan to further minimize potential impacts to archaeological resources. Impacts would be less than significant in this regard.

The analysis of cultural resources determined that one historic property (in other words, the Johnson House) appears eligible under the National Register of Historic Places and California Register of Historical Resources and that the constructive activities under the Build Alternative could result in ground-borne vibration that could impact the Johnson House. Implementation of avoidance and minimization measures Cultural Resources-2 through Cultural Resources-4 would further avoid and minimize impacts to cultural resources. Impacts would be less than significant in this regard.

The project area consists of surficial and subsurface geologic units ranked low to high in the potential for buried fossils. Thus, ground-disturbing activities associated with project construction could result in the disturbance or loss of previously undiscovered paleontological resources. Avoidance and minimization measure Paleontology-1 would require worker environmental awareness training and onsite construction monitoring. If paleontological resources are discovered during ground-disturbing activities, a Paleontological Mitigation Plan would be prepared (mitigation measure Paleontology-2), and fossil preparation, curation, and reporting would occur in accordance with mitigation measures Paleontology-3a and Paleontology-3b. With the implementation of mitigation measures Paleontology-2 through Paleontology-3b, impacts would be less than significant in this regard.

b) Does the project have impacts that are individually limited but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less Than Significant Impact—As discussed in Section 2.3.7, Cumulative Impacts, several planned projects may be under construction and/or operation at the same time as the proposed project. Cumulative impacts were analyzed for the following resources: paleontology, hazardous waste/materials, and biological resources. Based on the analysis provided in

Section 2.3.7, it was determined that the project would not have the capacity to substantially contribute to cumulative impacts in combination with other planned projects and developments. All future development projects within the project vicinity would be subject to independent environmental review on a case-by-case basis and would be required to implement project-specific design features and/or measures to reduce any identified impacts to these resources. Accordingly, the project, in combination with other planned projects, would not result in cumulative, considerable impacts. Impacts would be less than significant, and no measures would be required.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact—As discussed in Sections 2.1.1 through 2.2.8, potential impacts to human beings would not exceed identified thresholds and would result in a less than significant impact.

3.3 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. The Intergovernmental Panel on Climate Change, established by the United Nations and World Meteorological Organization in 1988, is devoted to greenhouse gas emissions reduction and climate change research and policy. Climate change in the past has generally occurred gradually over millennia or more suddenly in response to cataclysmic natural disruptions. The research of the Intergovernmental Panel on Climate Change and other scientists over recent decades, however, has unequivocally attributed an accelerated rate of climatological changes over the past 150 years to greenhouse gas emissions generated from the production and use of fossil fuels.

Human activities generate greenhouse gases consisting primarily of carbon dioxide, methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, and various hydrofluorocarbons. Carbon dioxide is the most abundant greenhouse gas; while it is a naturally occurring and necessary component of earth’s atmosphere, fossil-fuel combustion is the main source of additional, human-generated carbon dioxide that is the main driver of climate change. In the U.S. and California, transportation is the largest source of greenhouse gas emissions, mostly carbon dioxide.

The impacts of climate change are already being seen in the form of sea level rise, drought, extended and severe fire seasons, and historic flooding from changing storm patterns. The most important strategy to address climate change is to reduce greenhouse gas emissions. Additional strategies are necessary to mitigate and adapt to these impacts. In the context of climate change, “mitigation” involves actions to reduce greenhouse gas emissions to

lessen adverse impacts that are likely to occur. “Adaptation” is planning for and responding to impacts to reduce vulnerability to harm, such as by adjusting transportation design standards to withstand more intense storms, heat, and higher sea levels. This analysis will include a discussion of both in the context of this transportation project.

3.3.1 Regulatory Setting

This section outlines federal and state efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

Federal

To date, no national standards have been established for nationwide mobile-source greenhouse gas reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and greenhouse gas emissions reduction at the project level.

The National Environmental Policy Act (42 U.S. Code Part 4332) requires federal agencies to assess the environmental effects of their proposed actions before deciding on the action or project.

The Federal Highway Administration recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. The Federal Highway Administration, therefore, supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (Federal Highway Administration 2020). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values— “the triple bottom line of sustainability” (Federal Highway Administration, no date). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

The federal government has taken steps to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 U.S. Code Section 6201) as amended by the Energy Independence and Security Act of 2007; and the Corporate Average Fuel Economy Standards. This act established fuel economy standards for on-road motor vehicles sold in the United States. The U.S. Department of Transportation’s National Highway Traffic and Safety Administration sets and enforces the Corporate Average Fuel Economy standards based on each manufacturer’s average fuel economy for the portion of its vehicles produced for sale in the United States. The U.S. Environmental Protection Agency calculates average fuel

economy levels for manufacturers and also sets related greenhouse gas emissions standards under the Clean Air Act. Raising Corporate Average Fuel Economy standards leads automakers to create a more fuel-efficient fleet, which improves our nation's energy security, saves consumers money at the pump, and reduces greenhouse gas emissions (U.S. Department of Transportation 2014).

U.S. Environmental Protection Agency published a final rulemaking on December 30, 2021, that raised federal greenhouse gas emissions standards for passenger cars and light trucks for model years 2023 through 2026, increasing in stringency each year. The updated greenhouse gas emissions standards will avoid more than 3 billion tons of greenhouse gas emissions through 2050. In April 2022, National Highway Traffic and Safety Administration announced corresponding new fuel economy standards for model years 2024 through 2026, which will reduce fuel use by more than 200 billion gallons through 2050 compared to the old standards and reduce fuel costs for drivers (U.S. Environmental Protection Agency 2022a; National Highway Traffic and Safety Administration 2022).

State

California has been innovative and proactive in addressing greenhouse gas emissions and climate change by passing multiple Senate and Assembly bills and executive orders, including, but not limited to, the following:

Executive Order S-3-05 (June 1, 2005): The goal of this Executive Order is to reduce California's greenhouse gas emissions to (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill 32 in 2006 and Senate Bill 32 in 2016.

Assembly Bill 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006: Assembly Bill 32 codified the 2020 greenhouse gas emissions reduction goals outlined in Executive Order S-3-05 while further mandating that the California Air Resources Board create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The legislature also intended that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020 (Health and Safety Code Section 38551(b)). The law requires the California Air Resources Board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective greenhouse gas reductions.

Senate Bill 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires the California Air Resources Board to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization for each region must then develop a "Sustainable

Communities Strategy" that integrates transportation, land use, and housing policies to plan how it will achieve the emissions target for its region.

Executive Order B-30-15 (April 2015) establishes an interim statewide greenhouse gas emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of greenhouse gas emissions to implement measures, pursuant to statutory authority, to achieve reductions in greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets. It also directs the California Air Resources Board to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent. Greenhouse gases differ in how much heat each trap in the atmosphere (global warming potential). Carbon dioxide is the most important greenhouse gas, so amounts of other gases are expressed relative to carbon dioxide using a metric called "carbon dioxide equivalent." The global warming potential of carbon dioxide is assigned a value of 1, and the global warming potential of other gases is assessed as multiples of carbon dioxide. Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, Safeguarding California, every 3 years and to ensure that its provisions are fully implemented.

Senate Bill 32, Chapter 249, 2016, codifies the greenhouse gas reduction targets established in Executive Order B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

Senate Bill 1386, Chapter 545, 2016, declared "it to be the policy of the state that the protection and management of natural and working lands … is an important strategy in meeting the state's greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands."

Senate Bill 743, Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delays to alternative methods focused on vehicle miles traveled to promote the state's goals of reducing greenhouse gas emissions and traffic-related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.

Senate Bill 150, Chapter 150, 2017, Regional Transportation Plans: This bill requires the California Air Resources Board to prepare a report that assesses progress made by each metropolitan planning organization in meeting their established regional greenhouse gas emission reduction targets.

Executive Order B-55-18 (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing greenhouse gas emissions.

Assembly Bill 1279, Chapter 337, 2022, The California Climate Crisis Act: This bill mandates carbon neutrality by 2045 and establishes an emissions reduction target of 85 percent below 1990 level as part of that goal. This bill solidifies a goal included in Executive Order B-55-18. It requires the California Air Resources Board to work with relevant state agencies to ensure that updates to the scoping plan identify and recommend measures to achieve these policy goals and to identify and implement a variety of policies and strategies that enable carbon dioxide removal solutions and carbon capture, utilization, and storage technologies in California, as specified.

3.3.2 Environmental Setting

The proposed project is in an urban area of San Luis Obispo County with a well-developed road and street network. The project area is mainly residential, with some industrial and commercial buildings. Traffic congestion during peak hours is not uncommon in the project area. A Regional Transportation Plan/Sustainable Communities Strategy by the San Luis Obispo Council of Governments guides transportation development in the project area. Cities and other local jurisdictions may also conduct local greenhouse gas inventories to inform their greenhouse gas reduction or climate action plans.

Greenhouse Gas Inventories

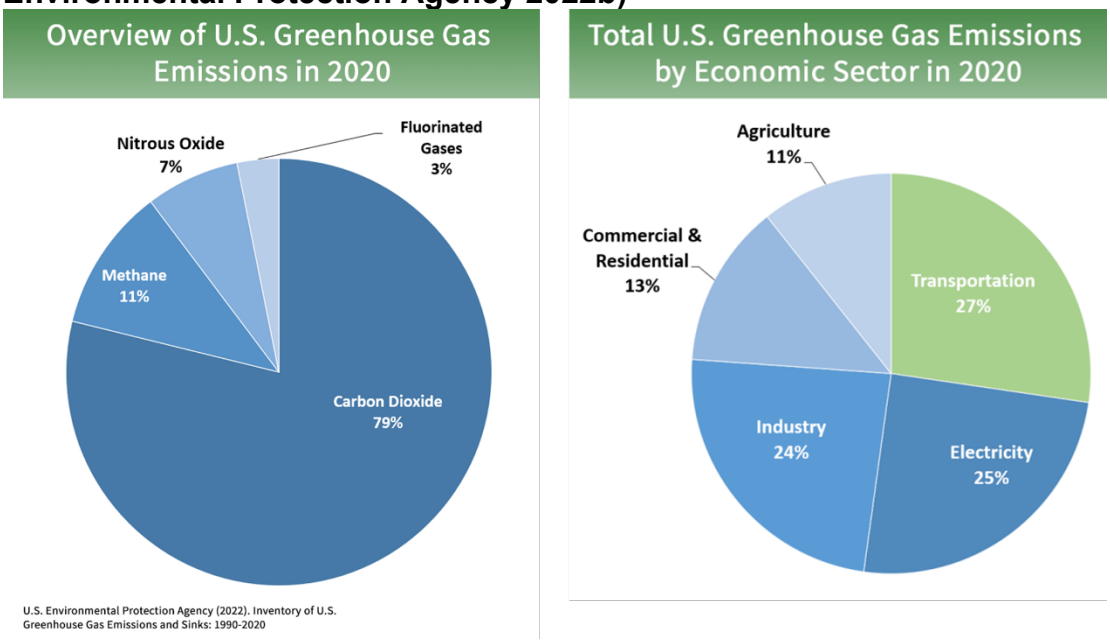
A greenhouse gas emissions inventory estimates the amount of greenhouse gases discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual greenhouse gas emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. The U.S. Environmental Protection Agency is responsible for documenting greenhouse gas emissions nationwide, and the California Air Resources Board does so for the state, as required by Health and Safety Code Section 39607.4.

National Greenhouse Gas Inventory

The annual greenhouse gas inventory submitted by the U.S. Environmental Protection Agency to the United Nations provides a comprehensive accounting of all human-produced sources of greenhouse gases in the U.S. Total greenhouse gas emissions from all sectors in 2020 were 5,222 million metric tons, factoring in deductions for carbon sequestration in the land sector. Of these, 79 percent were carbon dioxide, 11 percent were methane, and 7 percent were nitrous oxide; the balance consisted of fluorinated gases. Total greenhouse gases in 2020 decreased by 21 percent from 2005 levels

and 11 percent from 2019. The change from 2019 resulted primarily from less demand in the transportation sector during the COVID-19 pandemic. The transportation sector was responsible for 27 percent of total U.S. Greenhouse gas emissions in 2020, more than any other sector (Figure 3-1), and for 36 percent of all carbon dioxide emissions from fossil fuel combustion. Transportation carbon dioxide emissions for 2020 decreased by 13 percent from 2019 to 2020 but were 7 percent higher than transportation carbon dioxide emissions in 1990 (Figure 3-1) (U.S. Environmental Protection Agency 2022b).

Figure 3-1 U.S. 2020 Greenhouse Gas Emissions (Source: U.S. Environmental Protection Agency 2022b)



State Greenhouse Gas Inventory

The California Air Resources Board collects greenhouse gas emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its greenhouse gas reduction goals. The 2022 edition of the greenhouse gas emissions inventory reported emissions trends from 2000 to 2020. Total California GHG emissions in 2020 were 369.2 metric tons per year of carbon dioxide equivalent, a reduction of 35.3 metric tons per year of carbon dioxide equivalent from 2019 and 61.8 metric tons per year of carbon dioxide equivalent below the 2020 statewide limit of 431 metric tons per year of carbon dioxide equivalent. Much of the decrease from 2019 to 2020, however, is likely due to the effects of the COVID-19 pandemic on the transportation sector, during which vehicle miles traveled declined under stay-at-home orders and reductions in goods movement. Nevertheless, transportation remained the largest source of greenhouse gas emissions,

accounting for 37 percent of statewide emissions (Figure 3-2). (Including upstream emissions from oil extraction, petroleum refining, and oil pipelines in California, transportation was responsible for about 47 percent of statewide emissions in 2020; however, those emissions are accounted for in the industrial sector.) California's gross domestic product and greenhouse gas intensity (greenhouse gas emissions per unit of gross domestic product) both declined from 2019 to 2020 (Figure 3-3). It is expected that total greenhouse gas emissions will increase as the economy recovers over the next few years (ARB 2022a).

Figure 3-2 California 2020 Greenhouse Gas Emissions by Scoping Plan Category (Source: California Air Resources Board 2022a)

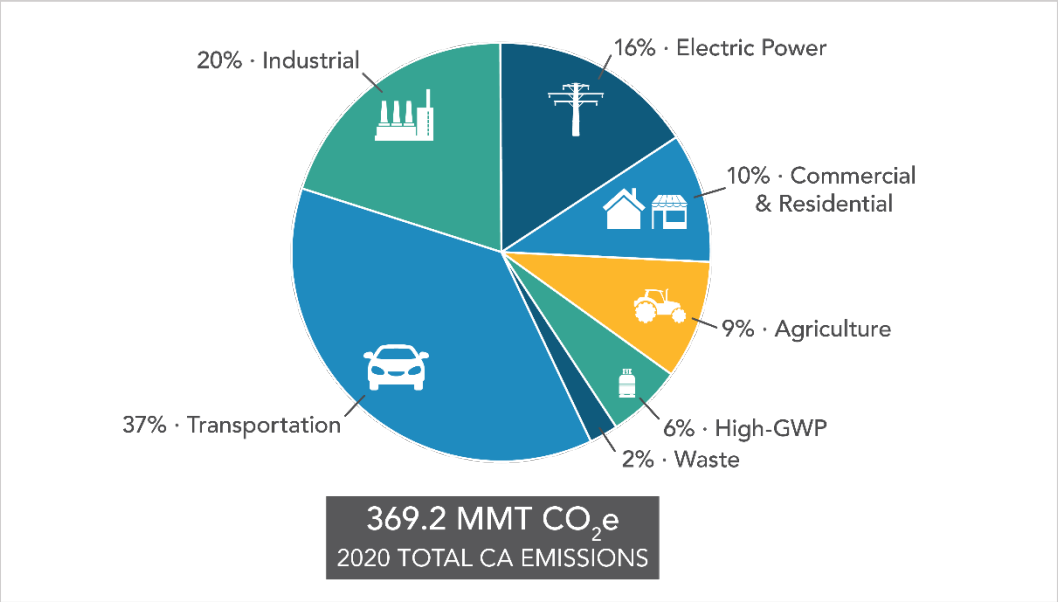
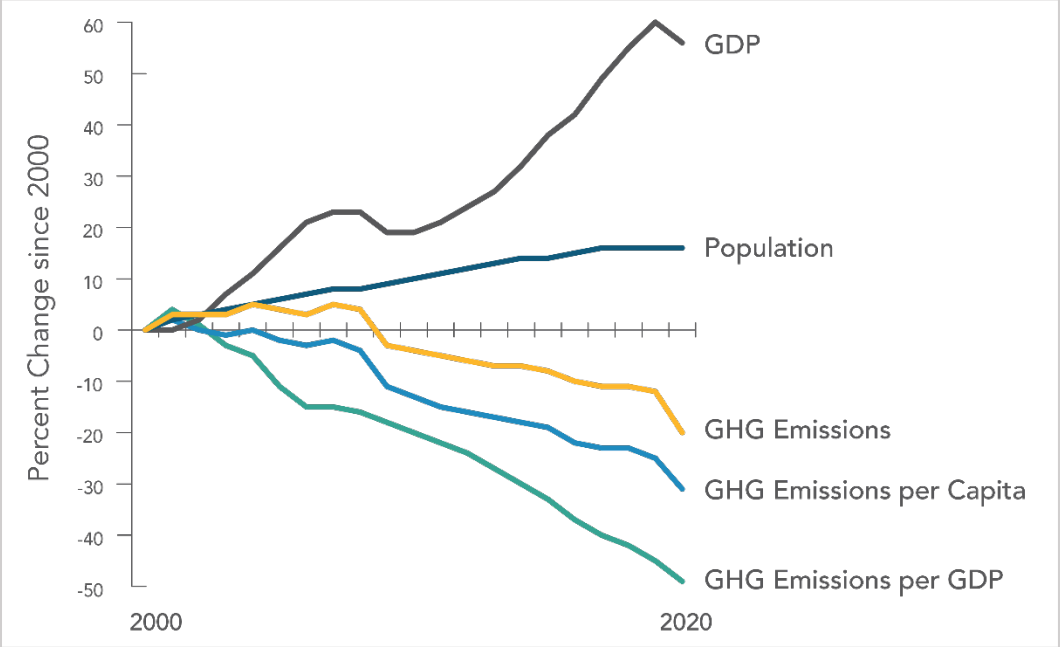


Figure 3-3 Change in California Gross Domestic Product, Population, and Greenhouse Gas Emissions Since 2000 (Source: California Air Resources Board 2022a)



Assembly Bill 32 required the California Air Resources Board to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing greenhouse gas emissions to 1990 levels by 2020 and to update it every 5 years. The California Air Resources Board adopted the first scoping plan in 2008. The second updated plan, California's 2017 Climate Change Scoping Plan, adopted on December 14, 2017, reflects the 2030 target established in Executive Order B-30-15 and Senate Bill 32. The draft 2022 Scoping Plan Update additionally lays out a path to achieving carbon neutrality by 2045 (California Air Resources Board 2022b).

Regional Plans

The California Air Resources Board sets regional greenhouse gas reduction targets for California's 18 Metropolitan Planning Organizations to achieve through planning future projects that will cumulatively achieve these goals and reporting how they will be met in the Regional Transportation Plan/Sustainable Communities Strategy. Targets are set at a percent reduction of passenger vehicle greenhouse gas emissions per person from 2005 levels. The proposed project is included in the 2019 Regional Transportation Plan/Sustainable Communities Strategy for the San Luis Obispo Council of Governments. The regional reduction target for the San Luis Obispo Council of Governments is 3 percent by 2020 and 11 percent by 2035 (California Air Resources Board 2021b). Table 3.1 shows the relevant greenhouse gas reduction policies established in the 2019 Regional Transportation Plan/Sustainable Communities Strategy.

Table 3.1 Regional Greenhouse Gas Reduction Plan

Title	Greenhouse Gas Reduction Policies
San Luis Obispo Council of Governments' 2019 Regional Transportation Plan Connecting Communities (adopted June 2019)	1. Preserve the transportation system 1.1 Maintain and maximize the efficiency of the existing transportation system and operations. 1.3 Preserve the region's transportation system to a state of good repair. 2. Improve intermodal mobility and accessibility for all people 2.1 Provide reliable, integrated, and flexible travel choices across and between modes. 2.2 Improve opportunities for businesses and citizens to easily access goods, jobs, services, and housing. 2.3 Integrate new technologies and concepts to make the transportation system more efficient and accessible. 2.4 Identify and improve major transportation corridors for all users. 2.5 Support cooperative planning activities that lead to an integrated intermodal transportation system. 4. Improve public safety and security 4.2 Reduce congestion and increase safety by improving operations. 4.3 Enhance public safety and security in all modes of transportation. 5. Foster livable, healthy communities and promote social equity 5.4 Implement the Sustainable Communities Strategies and other strategies to reduce greenhouse gas emissions and make our communities more healthy, livable, sustainable, and mobile. 6. Practice environmental stewardship 6.3 Reduce greenhouse gas emissions from vehicles and improve air quality in the region.

Source: San Luis Obispo Council of Governments, 2019 Regional Transportation Plan Connecting Communities, adopted June 5, 2019.

3.3.3 Project Analysis

Greenhouse gas emissions from transportation projects can be divided into those produced during the operation of the state highway system (operational emissions) and those produced during construction. The primary greenhouse gases produced by the transportation sector are carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons. Carbon dioxide emissions are a product of burning gasoline or diesel fuel in internal combustion engines, along with relatively small amounts of methane and nitrous oxide. A small amount of hydrofluorocarbon emissions related to refrigeration is also included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Public Resources Code, Section 21083(b)(2)). As the California Supreme Court explained, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself." (Cleveland National Forest Foundation versus San Diego Association of Governments (2017) 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

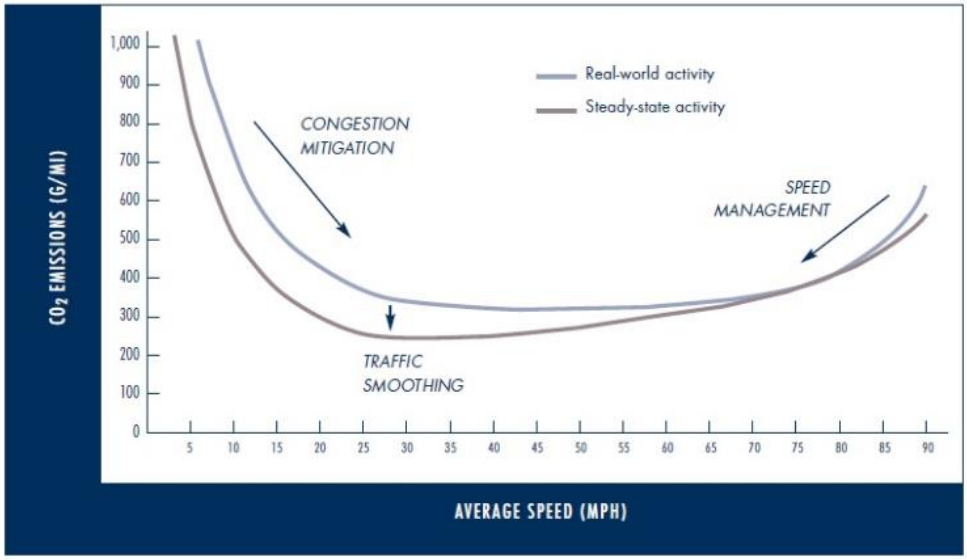
Operational Emissions

Carbon dioxide from fossil fuel combustion is the largest component of U.S. greenhouse gas emissions, and transportation is the largest contributor to carbon dioxide. The largest emitters of transportation carbon dioxide emissions in 2020 were passenger cars (38.5 percent), freight trucks (26.3 percent), and light-duty trucks (18.9 percent). The remainder came from other modes of transportation, including aircraft, ships, boats, and trains, as well as pipelines and lubricants (U.S. Environmental Protection Agency 2022b). Because carbon dioxide emissions represent the greatest percentage of greenhouse gas emissions, it has been selected as a proxy within the following analysis for potential climate change impacts generally expected to occur.

The highest levels of carbon dioxide from mobile sources such as automobiles occur at stop-and-go speeds (0 to 25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0 to 25 miles per hour (see Figure 3-4). To the extent that a project relieves congestion by enhancing operations and improving travel times in high-congestion travel corridors, greenhouse gas emissions, particularly carbon dioxide, may be reduced, provided that improved travel times do not induce additional vehicle miles traveled.

Four primary strategies can reduce greenhouse gas emissions from transportation sources: (1) improving the transportation system and operational efficiencies, (2) reducing travel activity (for example, vehicle miles traveled), (3) transitioning to lower greenhouse gas-emitting fuels, and (4) improving vehicle technologies and efficiency. To be most effective, all four strategies should be pursued concurrently.

Figure 3-4 Possible Use of Traffic Operation Strategies in Reducing On-Road Carbon Dioxide Emissions



(Source: Barth and Boriboonsomsin 2010)

San Luis Obispo Council of Government's 2019 Regional Transportation Plan/Sustainable Communities Strategy proactively links land use, air quality, and transportation needs. The Regional Transportation Plan/Sustainable Communities Strategy incorporates smart growth principles, including housing choice, compact development, mixed-use development, natural resource conservation, use of existing assets, quality design, and transportation choice. It also provides increased transportation options while reducing congestion, shortening commute times, and improving air quality. The 2019 Regional Transportation Plan/Sustainable Communities Strategy looks at forecasted growth and corresponding greenhouse gas emissions for the years 2020 and 2035 conditions. By implementing the transportation and land use components of the Regional Transportation Plan/Sustainable Communities Strategy and including measures from the California Air Resources Board Scoping Plan, projected greenhouse gas emissions, in comparison to the year 2005 conditions, would be reduced by more than eight percent for the year 2020 and eleven percent for the year 2035. Because the proposed project is included in the 2019 Regional Transportation Plan/Sustainable Communities Strategy, it would assist the region with the overall goal of reducing vehicle-related greenhouse gas.

Use of long-life pavement can also help offset greenhouse gas emissions by allowing longer intervals between maintenance and rehabilitation activities. In accordance with the Highway Design Manual, long-life pavement is a standard project feature for this project. The pavement design life for new construction and reconstruction projects shall be no less than 40 years (Highway Design Manual, Chapter 610, Section 612.2 - New Construction and Reconstruction).

Quantitative Analysis

The California Air Resources Board developed the EMission FACtors model to facilitate the preparation of statewide and regional mobile source emissions inventories. The model generates emissions rates that can be multiplied by vehicle activity data from all motor vehicles, including passenger cars to heavy-duty trucks, operating on highways, freeways, and local roads in California. The EMission FACtors model has a rigorous scientific foundation, has been approved by the U.S. Environmental Protection Agency, and has been vetted through multiple stakeholder reviews. Caltrans developed Caltrans-EMission FACtors to apply project-specific factors to the California Air Resources Board's model.

Long-term operational greenhouse gas emissions associated with the project would be associated with the operation of motor vehicles along area roadways. Since the opening and design years for Phase 2 of the project are unknown at this time, the operational analysis conservatively assumes the project's total construction and operation emissions after the completion of both phases. It should be noted that Phase 1 of the project was originally expected to complete construction and be open to traffic by 2025 and is now anticipated to be open to traffic by 2029. Phase 2 of the proposed project was originally expected to complete construction and be open to traffic by 2045 and is now anticipated to be open to traffic by 2049. Based on the Technical Memorandum to the Air Quality Report, the updated project opening years for both Phase 1 and Phase 2 would not alter the conclusions of the Air Quality Report. Because the changes in the opening years would not alter the conclusions and for consistency with the Air Quality Report, the original opening years are referenced throughout this section.

Motor vehicle operational emissions were quantified for the existing year (2016), opening year 2025, and design year 2045 conditions based on data obtained from the traffic analysis prepared for this project. Given that most of the operational emissions are associated with mobile sources and that mobile-source emissions are projected to decline in future years due to improvements in vehicle emissions standards, future year emissions would result in lower estimates. As a result, the analysis presented reflects a conservative estimation of emissions. Estimated annual operational mobile-source greenhouse gas emissions and traffic conditions for the project area are summarized in Table 3.2.

As identified in Table 3.2, existing mobile-source greenhouse gas emissions within the project study area total approximately 6,126.72 metric tons of carbon dioxide equivalent per year. Build emissions in opening year 2025 (assuming full build-out of Phase 1 and Phase 2) are estimated to be approximately 5,177 metric tons of carbon dioxide equivalent, a reduction of approximately 949 metric tons of carbon dioxide equivalent from existing conditions. Build emissions would be about 97 metric tons less than under the No-Build Alternative in 2025.

In the design year 2045, the fully built out Build Alternative is expected to result in emissions of 4,345 metric tons of carbon dioxide equivalent, a reduction of 1,781.71 metric tons compared to existing emissions. Build Alternative emissions would be about 70 metric tons less than under the No-Build Alternative in 2045.

Pursuant to Senate Bill 743, Caltrans has developed guidelines and significance thresholds for a vehicle miles traveled assessment for transportation projects. However, Caltrans has determined that certain projects started before December 28, 2018, that have begun the environmental documentation milestone before September 15, 2020, are exempt from preparing a vehicle miles traveled assessment. The proposed project meets these requirements, and Caltrans has determined the project would not likely lead to a substantial increase in vehicle miles traveled. Thus, an analysis of vehicle miles traveled is not required, and the use of Level of Service is used as the metric for this project.

As shown in Table 3.2, greenhouse gas emissions would be less with project build-out in 2045 than under existing conditions and the No-Build Alternative, despite projected increases in vehicle miles traveled.

Table 3.2 Comparative Summary of Project-Area Greenhouse Gas Emissions

Alternative (Assuming Full Build-Out of Phase 1 and Phase 2)	Annual Vehicle Miles Traveled	Carbon Dioxide Equivalent Emissions (Metric Tons per Year)
Existing/Baseline 2016	12,271,655	6,126.72
Opening Year 2025	Not Applicable	Not Applicable
No-Build Alternative–Opening Year 2025	17,370,473	5,528.60
Build Alternative–Opening Year 2025	19,275,503	5,177.49
Design Year 2045	Not Applicable	Not Applicable
No-Build Alternative–Design Year 2045	23,999,214	4,414.71
Build Alternative–Design Year 2045	29,089,010	4,345.02

Source: Ambient Air Quality and Noise Consulting, Limited Liability Company, State Route 46 East/Union Road Intersection Improvements Air Quality Report, October 2022. It should be noted that greenhouse gas data in this table was derived from the EMission FACtors 2014 model.

EMission FACtors' greenhouse gas emission rates are based on tailpipe emissions test data, and the model does not account for factors such as the rate of acceleration and vehicle aerodynamics, which influence the amount of emissions generated by a vehicle. Greenhouse gas emissions quantified using Caltrans-EMission FACtors are estimates and may not reflect actual on-road emissions. Furthermore, the model does not account for induced travel. Modeling greenhouse gas estimates with EMission FACtors or Caltrans-EMission FACtors remains the most precise means of estimating future

greenhouse gas emissions. While Caltrans-EMission FACtors is currently the best tool available for calculating greenhouse gas emissions from mobile sources, it is important to note that the greenhouse gas results are useful only for comparing alternatives. Federal Corporate Average Fuel Economy and greenhouse gas emissions standards continue to evolve, and models will be updated to account for regulatory changes.

At the time the air quality emissions modeling was conducted, the U.S. Environmental Protection Agency-approved emissions model was EMission FACtors 2014. Use of the EMission FACtors 2017 model for project-level analyses was approved by the U.S. Environmental Protection Agency on August 15, 2019, with a 12-month grace period ending on August 17, 2020. For project-level analyses, the use of the EMission FACtors 2014 computer model after the EMission FACtors 2017 approval date was considered acceptable, and the EMission FACtors 2014 model was used to analyze air quality emissions for the project. Because the EMission FACtors 2017 model includes new regulations for heavy-duty vehicles and updated vehicle inventory data reflecting the turnover/retirement of older vehicles and various other improvements that reduce greenhouse gas emissions, the use of the newer EMission FACtors 2017 and EMission FACtors 2021 models would likely result in reduced emissions of no discernable difference in greenhouse gas emissions. On May 26, 2022, the project development team held a focus meeting and collectively agreed that the EMission FACtors 2014 model data provides an accurate and conservative analysis of project impacts related to greenhouse gas emissions.

Construction Emissions

Construction greenhouse gas emissions would result from material processing, onsite construction equipment, and traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

Use of long-life pavement, improved traffic management plans, and changes in materials can also help offset greenhouse gas emissions produced during construction by allowing longer intervals between maintenance and rehabilitation activities.

Since construction, opening, and design years for Phase 2 of the project are unknown at this time, the construction analysis conservatively assumes project build-out (completion of Phases 1 and 2). Based on project-specific parameters entered into the Roadway Construction Emissions Model (version 9.0.0) developed by the Sacramento Metropolitan Air Quality Management District, estimated greenhouse gas emissions would total 3,983.6 metric tons per year of carbon dioxide equivalent across all project phases during the approximate 48-month construction period (24 months for Phase 1 and 24

months for Phase 2). Note that these estimates are based on assumptions made during the environmental planning phase of the project and are considered a “ballpark” of energy usage.

All construction contracts include Caltrans Standard Specifications related to air quality. Sections 7-1.02A and 7-1.02C, Emissions Reduction, require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all California Air Resources Board’s emission reduction regulations. Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce greenhouse gas emissions.

The project would also implement Caltrans standardized measures (such as Construction Best Management Practices) that apply to most or all Caltrans projects. Certain common regulations, such as the implementation of a traffic control plan that reduces traffic idling and construction vehicle emissions, also help reduce greenhouse gas emissions.

CEQA Conclusion

While the project would result in greenhouse gas emissions during construction, it is expected that the project would not result in an increase in operational greenhouse gas emissions. The project does not conflict with any applicable plan, policy, or regulation adopted to reduce the emissions of greenhouse gases. With the implementation of construction greenhouse gas-reduction measures, the impact would be less than significant.

Caltrans is firmly committed to implementing measures to help reduce greenhouse gas emissions. These measures are outlined in the following section.

3.3.4 Greenhouse Gas Reduction Strategies

Statewide Efforts

In response to Assembly Bill 32, California is implementing measures to achieve emission reductions of greenhouse gases that cause climate change. Climate change programs in California are effectively reducing greenhouse gas emissions from all sectors of the economy. These programs include regulations, market programs, and incentives that will transform transportation, industry, fuels, and other sectors, to take California into a sustainable, low-carbon, and cleaner future while maintaining a robust economy (California Air Resources Board 2022d).

Major sectors of the California economy, including transportation, will need to reduce emissions to meet 2030 and 2050 greenhouse gas emissions targets. The Governor’s Office of Planning and Research identified five sustainability

pillars in a 2015 report: (1) Increasing the share of renewable energy in the state's energy mix to at least 50 percent by 2030; (2) Reducing petroleum use by up to 50 percent by 2030; (3) Increasing the energy efficiency of existing buildings by 50 percent by 2030; (4) Reducing emissions of short-lived climate pollutants; and (5) Stewarding natural resources, including forests, working lands, and wetlands, to ensure that they store carbon, are resilient, and enhance other environmental benefits (Office of Planning and Research 2015). The Office of Planning and Research later added strategies related to achieving statewide carbon neutrality by 2045 in accordance with Executive Order B-55-18 and Assembly Bill 1279 (Office of Planning and Research 2022).

The transportation sector is integral to the people and economy of California. To achieve greenhouse gas emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. Greenhouse gas emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and a reduction in vehicle miles traveled. Reducing today's petroleum use in cars and trucks by 50 percent is a key state goal for reducing greenhouse gas emissions by 2030 (California Environmental Protection Agency 2015).

In addition, Senate Bill 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision-making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

Subsequently, Governor Gavin Newsom issued Executive Order N-82-20 to combat the crises in climate change and biodiversity. It instructs state agencies to use existing authorities and resources to identify and implement near- and long-term actions to accelerate the natural removal of carbon and build climate resilience in our forests, wetlands, urban green spaces, agricultural soils, and land conservation activities in ways that serve all communities and, in particular, low-income, disadvantaged, and vulnerable communities. To support this order, the California Natural Resources Agency (2022a) released *Natural and Working Lands Climate Smart Strategy*, with a focus on nature-based solutions.

Caltrans Activities

Caltrans continues to be involved on the Governor's Climate Action Team as the California Air Resources Board works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in Assembly Bill 32. Executive Order B-30-15, issued in April 2015, and Senate Bill 32 (2016), set an interim target to cut greenhouse gas emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

Climate Action Plan for Transportation Infrastructure

The California Action Plan for Transportation Infrastructure builds on executive orders signed by Governor Newsom in 2019 and 2020, targeted at reducing greenhouse gas emissions in transportation, which account for more than 40 percent of all polluting emissions, to reach the state's climate goals. Under *the California Action Plan for Transportation Infrastructure*, where feasible and within existing funding program structures, the state will invest discretionary transportation funds in sustainable infrastructure projects that align with its climate, health, and social equity goals (California State Transportation Agency, 2021).

California Transportation Plan

The California Transportation Plan is a statewide, long-range transportation plan to meet our future mobility needs and reduce greenhouse gas emissions. It serves as an umbrella document for all the other statewide transportation planning documents. The California Transportation Plan 2050 presents a vision of a safe, resilient, and universally accessible transportation system that supports vibrant communities, advances racial and economic justice, and improves public and environmental health. The plan's climate goal is to achieve statewide greenhouse gas emissions reduction targets and increase resilience to climate change. It demonstrates how greenhouse gas emissions from the transportation sector can be reduced through advancements in clean fuel technologies; continued shifts toward active travel, transit, and shared mobility; more efficient land use and development practices; and continued shifts to telework (Caltrans 2021a).

Caltrans Strategic Plan

The *Caltrans 2020 to 2024 Strategic Plan* includes goals of stewardship, climate action, and equity. Climate action strategies include developing and implementing a Caltrans Climate Action Plan; a robust program of climate action education, training, and outreach; partnership and collaboration; a vehicle miles traveled monitoring and reduction program; and engaging with the most vulnerable communities in developing and implementing Caltrans climate action activities (Caltrans 2021b).

Caltrans Policy Directives and Other Initiatives

Caltrans Director's Policy 30 Climate Change (June 22, 2012) established a Department policy to ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. *Caltrans Greenhouse Gas Emissions and Mitigation Report* (Caltrans 2020) provides a comprehensive overview of Caltrans' emissions. The report documents and evaluates current Caltrans procedures and activities that track and reduce greenhouse gas emissions and identifies additional opportunities for further reducing greenhouse gas emissions from Department-controlled emission sources in support of Departmental and State goals.

Project-Level Greenhouse Gas Reduction Strategies

The following measures would also be implemented in the project to reduce greenhouse gas emissions and potential climate change impacts from the project.

Climate Change Measure-1: The project would maintain equipment in proper tune and working condition. Use right sized equipment for the job.

Climate Change Measure-2: Bids would be solicited that include the use of energy and fuel-efficient fleets in accordance with current practices.

Climate Change Measure-3: The project would implement landscaping as determined during the final design in coordination with the City of Paso Robles and the Caltrans District Landscape Architect. This landscaping would help offset any potential carbon dioxide emissions increase.

The project would also implement the following strategies and adhere to the following regulation:

- Climate Change Strategy: According to Caltrans' Standard Specifications, the contractor must comply with all local air pollution control district's rules, ordinances, and regulations for air quality restrictions. This includes the California Air Resources Board's anti-idling rule (Section 2489 of the California Code of Regulations) and South Coast Air Quality Management District's Rule 2449 (In-Use Mobile Source Emission Reduction Programs).
- Climate Change Strategy: According to the Caltrans Standard Specifications, idling time for lane closure during construction would be limited to 10 minutes in each direction. In addition, the contractor would comply with all South Coast Air Quality Management District rules, ordinances, and regulations regarding air quality restrictions.
- Climate Change Regulation: The project would be required to comply with San Luis Obispo County Air Pollution Control District Rule 420, Cutback Asphalt Paving Materials, which addresses emissions generated by the manufacture, application, and sale of cutback and emulsified asphalt materials for the paving, construction, and maintenance of asphalt surfaces, thus improving pavement life.

3.3.5 Adaptation

Reducing greenhouse gas emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of

wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfires can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

Federal Efforts

Under the National Environmental Policy Act assignment, Caltrans is obligated to comply with all applicable federal environmental laws and Federal Highway Administration National Environmental Policy Act regulations, policies, and guidance.

The Fourth National Climate Assessment, published in 2018, presents the foundational science and the "human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways."

The U.S. Department of Transportation Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation to "integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of Department of Transportation to ensure that taxpayer resources are invested wisely and that transportation infrastructure, services, and operations remain effective in current and future climate conditions" (U.S. Department of Transportation 2011). The U.S. Department of Transportation Climate Action Plan of August 2021 followed up with a statement of policy to "accelerate reductions in greenhouse gas emissions from the transportation sector and make our transportation infrastructure more climate change resilient now and in the future," following this set of guiding principles (U.S. Department of Transportation 2021):

- Use best-available science
- Prioritize the most vulnerable
- Preserve ecosystems
- Build community relationships
- Engage globally

The U.S. Department of Transportation developed its climate action plan pursuant to the federal Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad* (January 27, 2021). Executive Order 14008 recognized the threats of climate change to national security and ordered federal government

agencies to prioritize actions on climate adaptation and resilience in their programs and investments (White House 2021).

Federal Highway Administration order 5520 (Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events, December 15, 2014) established Federal Highway Administration policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. Federal Highway Administration has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels (Federal Highway Administration 2019).

State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. A number of state policies and tools have been developed to guide adaptation efforts.

California's Fourth Climate Change Assessment (Fourth Assessment) (2018) is the state's effort to "translate the state of climate science into useful information for action." It provides information that will help decision-makers across sectors and at state, regional, and local scales protect and build the resilience of the state's people, infrastructure, natural systems, working lands, and waters. The state's approach recognizes that the consequences of climate change occur at the intersections of people, nature, and infrastructure. The Fourth Assessment reports that if no measures are taken to reduce greenhouse gas emissions by 2021 or sooner, the state is projected to experience a 2.7 to 8.8 degrees Fahrenheit increase in average annual maximum daily temperatures, with impacts on agriculture, energy demand, natural systems, and public health; a two-thirds decline in water supply from snowpack and water shortages that will impact agricultural production; a 77 percent increase in average area burned by wildfire, with consequences for forest health and communities; and large-scale erosion of up to 67 percent of Southern California beaches and inundation of billions of dollars worth of residential and commercial buildings due to sea level rise (State of California 2018).

Sea level rise is a particular concern for transportation infrastructure in the coastal zone. Major urban airports will be at risk of flooding from sea level rise combined with storm surge as early as 2040; San Francisco airport is already at risk. Miles of coastal highways vulnerable to flooding in a 100-year storm event will triple to 370 by 2100, and 3,750 miles will be exposed to temporary flooding. The Fourth Assessment's findings highlight the need for proactive action to address these current and future impacts of climate change.

In 2008, then-governor Arnold Schwarzenegger recognized the need when he issued Executive Order S-13-08, which focused on sea level rise. Technical

reports on the latest sea level rise science were first published in 2010 and updated in 2013 and 2017. The 2017 projections of sea level rise and a new understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018. This Executive Order also gave rise to the *California Climate Adaptation Strategy* (2009), updated in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan), which addressed the full range of climate change impacts and recommended adaptation strategies. The Safeguarding California Plan was updated in 2018 and again in 2021 as the *California Climate Adaptation Strategy*, incorporating key elements of the latest sector-specific plans such as the *Natural and Working Lands Climate Smart Strategy*, *Wildfire and Forest Resilience Action Plan*, *Water Resilience Portfolio,* and *the California Action Plan for Transportation Infrastructure* (described above). Priorities in the 2021 California Climate Adaptation Strategy include acting in partnership with California Native American Tribes, strengthening protections for climate-vulnerable communities that lack capacity and resources, nature-based climate solutions, using the best available climate science, and partnering and collaborating to best leverage resources (California Natural Resources Agency 2022b).

Executive Order B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This Executive Order recognizes that the effects of climate change in addition to sea level rise also threaten California's infrastructure. At the direction of Executive Order B-30-15, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies* in 2017 to encourage a uniform and systematic approach.

Assembly Bill 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group to help actors throughout the state address the findings of California's Fourth Climate Change Assessment. It released its report, *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*, in 2018. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts (Climate Change Infrastructure Working Group 2018).

Caltrans Adaptation Efforts

Caltrans Vulnerability Assessments

Caltrans completed climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects of precipitation, temperature, wildfire, storm surge, and sea level rise.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments guide the analysis of at-risk assets and the development of Adaptation Priority Reports as a method to make capital programming decisions to address identified risks.

Project Adaptation Analysis

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation and flooding, the increased frequency and intensity of storms and wildfires, rising temperatures, and rising sea levels. The following discussion considers future climate conditions in the project area and potential impacts to transportation facilities as a result of project implementation.

Sea Level Rise

The proposed project is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not expected.

Precipitation and Flooding

Future flood considerations have been considered in relation to the project's proposed widening of the Huer Huero Creek Bridge Overcrossing. The proposed widening of the Huer Huero Creek Bridge Overcrossing would involve structures that would cross the Huer Huero Creek at a minimum elevation of 757 feet, spanning the 100-year floodplain. The Hydraulic Study found that the proposed project would not result in significant floodplain increases under current conditions due to the proposed drainage features, such as infiltration basins, bioretention, bioswale, and a conveyance swale that would reduce the velocities and volume of runoff to pre-project conditions. The Caltrans District 5 Climate Change Vulnerability Assessment maps project changes in 100-year storm precipitation, a metric used in highway design. This mapping indicates an increase in 100-year storm precipitation of 5 percent or less through 2085. Considering the bridge elevation and proposed drainage features, more frequent and intense precipitation events would not result in direct impacts on transportation facilities.

Wildfire

The project site is not within or near a very high fire hazard severity zone, as identified in the California Department of Forestry and Fire Protection (CalFire) Very High Fire Hazard Severity Zones in Local Responsibility Area (map) (dated July 22, 2009, for San Luis Obispo County, California and incorporated areas). Additionally, the project site is not within a Very High Fire Hazard Severity Zone in SRA (map) (dated November 7, 2007, for San Luis

Obispo County, California, and incorporated areas). The District 5 Caltrans Climate Change Vulnerability Assessment indicates the project location is in an area of only moderate wildfire concern in 2055 and 2085. This is consistent with the increasing temperature and changing precipitation patterns resulting in changes to land cover that make it more prone to ignition. Human infrastructure introduces elements, such as electrical infrastructure, that further increase fire potential (Caltrans 2019).

The project is proposed to address existing and planned development in the area, which would introduce new human factors that could cause a fire. However, it would improve the existing intersection without introducing new roadways or other structures vulnerable to fire. The project would be subject to adherence to Caltrans standard specifications for fire prevention during construction and to Chapter 33 of the California Fire Code, Fire Safety During Construction and Demolition, which includes safety provisions and precautions to minimize the potential for fires. All construction contracts include Caltrans 2018 revised Standard Specification 7-1.02M(2) mandating fire prevention procedures, including a fire prevention plan, to avoid accidental fire starts during construction.

During project operation, local fire protection services would serve the project site. Pavement design includes a temperature assessment in determining materials, and pavement is generally replaced after about 20 years. Drainage features would include new or reconstructed culverts that would meet Caltrans Specifications 61-6.02. Landscaping would involve installing fire-tolerant plant species within the roadway right-of-way and would share similar (or lesser) water requirements. Landscaping concepts and plant palettes would be developed in coordination with and approved by the Caltrans District Landscape Architect. Accordingly, the proposed project would not exacerbate wildfire risk, and the project would not be more vulnerable to wildfire and extreme heat than it is under existing conditions.

Temperature

The District Climate Change Vulnerability Assessment does not indicate temperature changes during the project’s design life that would require adaptive changes in pavement design or maintenance practices.

Climate Change References

Barth, Matthew and Kanok Boriboonsomsin. 2010. Real-World Carbon Dioxide Impacts of Traffic Congestion. Berkeley, CA: University of California Transportation Center. UCTC-FR-2010-11. https://www.researchgate.net/publication/46438207.

California Air Resources Board (ARB). 2008. Climate Change Scoping Plan Appendices. Volume II: Analysis and Documentation. Appendix I, p. I-19. December. https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/document/appendices_volume2.pdf. Accessed: November 2, 2022.

California Air Resources Board (ARB). 2022a. Greenhouse Gas Emissions and Trends for 2000 to 2020. Available: https://ww2.arb.ca.gov/our-work/programs/ghg-inventory-program. Accessed: November 2, 2022.

California Air Resources Board (ARB). 2022b. AB 32 Climate Change Scoping Plan. Available: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan. Accessed: November 2, 2022.

California Air Resources Board (ARB). 2022c. SB 375 Regional Plan Climate Targets. https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets. Accessed: November 2, 2022.

California Air Resources Board (ARB). 2022d. Climate Change. https://ww2.arb.ca.gov/our-work/topics/climate-change. Accessed: November 2, 2022.

Climate Change Infrastructure Working Group. 2018. Paying it Forward: The Path Toward Climate-Safe Infrastructure in California. September. https://files.resources.ca.gov/climate/climate-safe-infrastructure-working-group/. Accessed: December 13, 2021.

California Department of Transportation. 2019. Caltrans Climate Change Vulnerability Assessments 2019 District 5 Technical Report. Prepared by WSP. https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/2019-climate-change-vulnerability-assessments/ada-remediated/d5-technical-report-a11y.pdf. Accessed: July 30, 2021.

California Department of Transportation (Caltrans). 2020. Caltrans Greenhouse Gas Emissions and Mitigation Report. Final. August. Prepared by ICF, Sacramento, CA. https://dot.ca.gov/programs/public-affairs/mile-marker/summer-2021/ghg. Accessed: December 13, 2021.

California Department of Transportation (Caltrans). 2021a. California Transportation Plan 2050. February. https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf. Accessed: November 2, 2022.

California Department of Transportation (Caltrans). 2021b. Caltrans 2020-2024 Strategic Plan. https://dot.ca.gov/-/media/dot-media/programs/risk-strategic-management/documents/sp-2020-16p-web-a11y.pdf. Accessed: November 2, 2022.

California Environmental Protection Agency. 2015. California Climate Strategy. https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/climate-documents-2015yr-castrategy.pdf. Accessed: November 2, 2022.

California Governor's Office of Planning and Research (OPR). 2015. A Strategy for California @ 50 Million. November. https://opr.ca.gov/docs/EGPR_Nov_2015.pdf. Accessed: November 2, 2022.

California Governor's Office of Planning and Research (OPR). 2022. Carbon Neutrality by 2045. https://opr.ca.gov/climate/carbon-neutrality.html. Accessed: November 2, 2022.

California Natural Resources Agency. 2022a. Natural and Working Lands Climate Smart Strategy. https://resources.ca.gov/Initiatives/Expanding-Nature-Based-Solutions. Accessed: November 2, 2022.

California Natural Resources Agency. 2022b. California Climate Adaptation Strategy. https://climateresilience.ca.gov/. Accessed: November 2, 2022.

California State Transportation Agency. 2021. Climate Action Plan for Transportation Infrastructure (CAPTI). Adopted July 2021. https://calsta.ca.gov/subject-areas/climate-action-plan. Accessed: November 2, 2022.

Federal Highway Administration (FHWA). 2022. Sustainability. https://www.fhwa.dot.gov/environment/sustainability/resilience/. Last updated July 29, 2022. Accessed: November 2, 2022.

Federal Highway Administration (FHWA). No date. Sustainable Highways Initiative. https://www.sustainablehighways.dot.gov/overview.aspx. Accessed: November 2, 2022.

National Highway Traffic Safety Administration (NHTSA). 2022. USDOT Announces New Vehicle Fuel Economy Standards for Model Year 2024–2026. Press release. April 21. https://www.nhtsa.gov/press-

releases/usdot-announces-new-vehicle-fuel-economy-standards-model-year-2024-2026. Accessed: November 2, 2022.

State of California. 2018. California's Fourth Climate Change Assessment. https://climateassessment.ca.gov/. Accessed: November 2, 2022.

U.S. Department of Transportation (U.S. DOT). 2011. Policy Statement on Climate Change Adaptation. https://www.transportation.gov/sites/dot.dev/files/docs/Policy_on_Aaptation2011.pdf. Accessed: November 2, 2022.

U.S. Department of Transportation (U.S. DOT). 2014. Corporate Average Fuel Economy (CAFE) Standards. https://www.transportation.gov/mission/sustainability/corporate-average-fuel-economy-cafe-standards. Accessed: November 2, 2022.

U.S. Department of Transportation (U.S. DOT). 2021. Climate Action Plan: Ensuring Transportation Infrastructure and System Resilience. https://www.transportation.gov/sites/dot.gov/files/docs/DOT%20Adaptation%20Plan.pdf. Accessed: November 2, 2022.

U.S. Environmental Protection Agency (U.S. EPA). 2022a. Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026. December. https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. Accessed: November 2, 2022.

U.S. Environmental Protection Agency (U.S. EPA). 2022b. Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2020. https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks. Accessed: November 2, 2022.

The White House. 2021. Executive Order on Tackling the Climate Crisis at Home and Abroad. January 27. https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/. Accessed: November 14, 2022.

This page intentionally left blank

Chapter 4 Comments and Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required and to identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements. Agency and tribal consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including interagency coordination meetings, public meetings, public notices, and Project Development Team meetings. This chapter summarizes the results of Caltrans' efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

Community and Public Agency Outreach

Public outreach occurred in conjunction with the State Route 46 East Comprehensive Corridor Study published by Caltrans District 5 in March 2009, which includes the State Route 46 East (State Route 46)/Union Road interchange. According to the State Route 46 East Comprehensive Corridor Study Public Involvement Summary dated August 2009, two public workshops were held in Paso Robles in the spring of 2008, and a final public workshop was held in March 2009, which unveiled the findings of the Corridor Study to the public. Newsletters and postcards were sent to local residents and identified stakeholders in advance of the public workshops to generate awareness of the Comprehensive Corridor Study process. In addition, a project website (www.46eastforthefuture.org) was launched in February 2008 to serve as an online project forum. The site was updated periodically throughout the project and featured relevant planning documents, background information, workshop announcements, and summaries, as well as relevant media coverage of the process and draft documents as they became available. Caltrans staff secured media coverage throughout the process; five articles appeared in the Paso Robles Press, one article appeared in the San Luis Obispo Tribune, and the March 5, 2008, workshop was covered by a local news station. Following the conclusion of the public involvement activities, a short survey was developed and made available on the project website for those who attended the public workshop to generate feedback about the process.

During a small group exercise conducted at one of the workshops, local residents identified the following as high priorities:

- Developing additional local road connectivity and generally improving local road connections;
- Maintaining existing businesses and protecting right-of-way;

- Maintaining the character of the surrounding community; and
- Ensuring corridor safety by improving the Golden Hill and Jardine Road connections.

Community Impacts

As discussed in the Community Impact Assessment, dated May 2023, prepared for the proposed project, a community participation process was conducted to solicit feedback related to the potential community impacts associated with the project. This process was carried out in November and December 2020. A survey was developed with questions regarding the project to gauge the public's response, level of support, and potential concerns regarding the project. The survey was distributed to local property owners and residents and was made available to the public for participation via the City's website for 30 days. The survey consisted of 14 questions pertaining specifically to the following: park/recreational impacts relative to Barney Schwartz Park; access to, visibility of, and effects on local businesses in the project area; and the overall impacts to community character and cohesion. Approximately 200 people responded to the survey; a synopsis of the survey results is described below.

- Barney Schwartz Park. In determining the level of use of Barney Schwartz Park, over 66 percent of respondents stated they use the park, with most of the respondents stating they used the park weekly or monthly. When asked whether the proposed minor acquisition from the grass field and the parking lot is of concern to park users, 50 percent responded "no," 30 percent responded "yes," and the remainder responded, "don't know."
- Local Businesses. When asked what the proposed project's potential impacts would be relative to an increase or decrease in access, visibility, and effects on local businesses in the project area, nearly 69 percent of respondents felt the project would increase access to local businesses; nearly 61 percent of respondents believe the project would increase visibility to local businesses; and over 64 percent of respondents think the project would result in an increase in business activity for local businesses.
- Community Character and Cohesion. When asked whether respondents consider the neighborhoods in the project area to be cohesive or tight-knit, 30 percent said "yes," 26 percent said "no," and 44 percent said "don't know." Also, when asked what aspect of community character in the project area should be prioritized to be maintained, respondents ranked the following aspects as follows:
    - 24.1 percent of respondents chose residential areas/neighborhoods as the top priority;
    - 23.2 percent of respondents chose preservation of open space areas within Paso Robles as the top priority;

  - 23.1 percent of respondents chose recreational facilities in Paso Robles (for instance, parks, trails, community centers, et cetera) as the top priority;
  - 20.4 percent of respondents chose areas in Paso Robles associated with the "Purple Belt Program" (in other words, agriculture/viticulture operations, wineries, equestrian activities, et cetera) as the top priority; and
  - 14.4 percent of respondents chose urban/downtown areas within Paso Robles as the top priority.
- Quality of Life. Lastly, when asked how the perceived quality of life would be affected by the project (in other words, whether the impacts would be beneficial or detrimental), over 65 percent of respondents replied they feel the project would have beneficial impacts to the community character; over 25 percent of respondents replied they feel the project would have detrimental impacts to the community character; and the remainder of respondents replied with an "other" written-in response. These responses ranged in nature, some of which cited concerns about over-urbanization in the project area, while others expressed concurrence that the project would provide additional safety in the project area.

Cultural Resources and Native American Consultation

As part of the cultural investigation, a records search was conducted with the Central Coast Information Center of the California Historical Resources Information System located at the Santa Barbara Museum of Natural History, Santa Barbara. The Native American Heritage Commission was contacted on October 25, 2018, and letters were sent to Native American tribes consistent with Assembly Bill 52 on May 29, 2019. Additional follow-up correspondence occurred on June 24, 2019. Caltrans did not receive any tribal responses. As part of the Supplemental Historic Property Survey Report for the project, letters were distributed again to the same contacts on June 9 and 11, 2021. Caltrans then received two responses from the tribes.

The consultation with the Native American Heritage Commission and Native American representatives is summarized in Table 4-1, Summary of Native American Consultation.

Table 4-1 Summary of Native American Consultation

Agency and Representative	Date of First Contact	Date of Reply	Date of Follow-Up	Consultation Topic
Native American Heritage Commission	October 25, 2018	November 5, 2018	Not Applicable	October 25, 2018: A sacred lands file search was requested by Ganda. November 5, 2018: The Native American Heritage Commission responded that there are no known sacred lands within the Area of Potential Effects.

Agency and Representative	Date of First Contact	Date of Reply	Date of Follow-Up	Consultation Topic
John Burch, Traditional Lead Salinan Tribe	May 29, 2019	Not Applicable	June 24, 2019	May 29, 2019: A letter that provided a project description and location and discussed upcoming cultural resources studies of the project area was sent via certified mail. June 24, 2019: A follow-up phone call was conducted. June 8, 2021: Due to the Supplemental Area of Potential Effects, tribes were re-notified of the project.
Frederick Segobia Salinan Tribe	May 29, 2019	Not Applicable	June 24, 2019	May 29, 2019: A letter that provided a project description and location and discussed upcoming cultural resources studies of the project area was sent via certified mail. June 24, 2019: A follow-up phone call was conducted. June 8, 2021: Due to the Supplemental Area of Potential Effects, tribes were re-notified of the project.

Agency and Representative	Date of First Contact	Date of Reply	Date of Follow-Up	Consultation Topic
Karen White, Chairperson Xolon-Salinan Tribe	May 29, 2019	Not Applicable	June 24, 2019	May 29, 2019: A letter that provided a project description and location and discussed upcoming cultural resources studies of the project area was sent via certified mail. June 24, 2019: A follow-up phone call was conducted. June 8, 2021: Due to the Supplemental Area of Potential Effects, tribes were re-notified of the project. July 25, 2021: Chairperson White responded via email to Michael Baker, Damon Haydu, and Krista Kiaha of Caltrans. She stated the area falls under their traditional lands but could not say if there are or aren't any sensitive sites within the location and would appreciate reviewing cultural studies as they become available. August 30, 2021: Michael Baker replied to Ms. White via email to verify if she would like a copy of the cultural study for the current undertaking and/or records search results.
Donna Haro, Tribal Headwoman Xolon-Salinan Tribe	May 29, 2019	Not Applicable	June 24, 2019	May 29, 2019: A letter that provided a project description and location and discussed upcoming cultural resources studies of the project area was sent via certified mail. June 24, 2019: A follow-up phone call was conducted. June 8, 2021: Due to the Supplemental Area of Potential Effects, tribes were re-notified of the project.
Greg Castro Salinan Tribe	June 11, 2021	Not Applicable	Not Applicable	June 11, 2021: A letter that provided a project description and location and discussed upcoming cultural resources studies of the project area was sent via certified mail. No response to date.
Robert Duckworth Salinan Tribe	June 11, 2021	Not Applicable	Not Applicable	June 11, 2021: A letter that provided a project description and location and discussed upcoming cultural resources studies of the project area was sent via certified mail. No response to date.

Agency and Representative	Date of First Contact	Date of Reply	Date of Follow-Up	Consultation Topic
Patti Dunton Salinan Tribe	June 11, 2021	Not Applicable	Not Applicable	June 8, 2021: A letter that provided a project description and location and discussed upcoming cultural resources studies of the project area was sent via certified mail. August 28, 2021: Tribal Administrator Patti Dunton replied via email to Damon Haydu and Terry Joslin of Caltrans and stated the tribe has many concerns. Because they are aware of archaeological sites in the area, and the river is nearby, they request all ground-disturbing activities be monitored by a cultural resource specialist from their tribe.

Sources: Michael Baker International, Historic Property Survey Report for the State Route 46 East/Union Road Intersection Improvements (July 2020) and Supplemental Historic Property Survey Report for the State Route 46 East/Union Road Intersection Improvements (August 2021).

Caltrans consulted with the California Office of Historic Preservation and State Historic Preservation Officer for concurrence regarding the Finding of Effect prepared for the proposed project. On March 25, 2022, the Finding of Effect was provided to the State Historic Preservation Officer for review, and on April 28, 2022, the State Historic Preservation Officer provided concurrence. See Section 4.7 below for copies of these letters.

Biological Resources

Lists of special-status species were generated from the California Department of Fish and Wildlife California Natural Diversity Database, California Native Plant Society Electronic Inventory, current listings for special-status species from the U.S. Fish and Wildlife Service, Electronic Inventory, and the Information Planning and Conservation System in May 2023. See the Natural Environment Study prepared for the project, dated May 2023, for a copy of the U.S. Fish and Wildlife Service Information Planning and Conservation System species list.

This project is located outside of National Oceanic and Atmospheric Administration Fisheries Service jurisdiction; therefore, a National Oceanic and Atmospheric Administration species list is not required, and no effects to National Oceanic and Atmospheric Administration species are anticipated.

A query of the U.S. Department of Agriculture Natural Resource Conservation Service Soil Surveys for the project site was also conducted.

Correspondence

The following correspondence is provided within this section:

- Native American correspondence
- State Historic Preservation Officer correspondence

ZamudioGurrola, Susan
From: Karen White <xolon.salinan.heritage@gmail.com>
Sent: Sunday, July 25, 2021 4:23 PM
To: ZamudioGurrola, Susan
Copy: Damon.Haydu@dot.ca.gov; krista.kiaha@dot.ca.gov; Nayyar, Margo; Karen Fontanetta; Donna Haro
Subject: EXTERNAL: Re: Assembly Bill 52 and Section 106 consultation for State Route 46 East/Union Road Intersection Improvements

Follow Up Flag: Follow up
Flag Status: Flagged

Good Day,

We apologize for the delay, Thank you for notification.

This area falls under the traditional lands of the Xolon Salinan Tribe.

At this time, we cannot say if there are or aren't any sensitive sites within this location. Cultural studies from the past and present would definitely benefit any Area of Potential Effects.

We would appreciate reviewing these studies as they become available.

Thank you,
Karen R White
Xolon Salinan Tribe

ZamudioGurrola, Susan
Subject: FW: EXTERNAL: FW: Union Road/State Route 46 East Intersection Improvements, City of Paso Robles Ca

From: info@salinantribe.com <info@salinantribe.com>
Sent: Saturday, August 28, 2021 3:36 PM
To: Haydu, Damon@DOT <Damon.Haydu@dot.ca.gov>; Joslin, Terry L@DOT <terry.joslin@dot.ca.gov>
Subject: State Route 46 East/Union Road Intersection Improvements, City of Paso Robles California

EXTERNAL EMAIL. Links/attachments may not be safe.

Greetings Damon and Terry, we have reviewed the proposed project and have many concerns we are aware of know archaeological sites in the area and because the river is near by, we are requesting that all ground-disturbing activities be monitored by a cultural resource specialist from our tribe.

Xayatspanikan,
Patti Dunton, Tribal Administrator

STATE OF CALIFORNIA Natural Resources Agency Gavin Newsom, *Governor*
Armando Quintero, *Director*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERNATION
Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, California 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

April 28, 2022

VIA EMAIL In reply refer to: Federal Highway Administration_2020_0316_001

David Price, Section 106 Coordinator
Cultural Studies Office
Division of Environmental Analysis
1120 North Street, PO Box 942873, MS-27
Sacramento, California 94273-0001

Subject: Finding of Effect for the Proposed State Route 46 East/Union Road Intersection Improvements, Post Mile 31.0/32.5, City of Paso Robles, San Luis Obispo County, California

Dear Mr. Price:

Caltrans is continuing consultation regarding the above project in accordance with the January 1, 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (106 Programmatic Agreement). As part of your documentation, Caltrans submitted a supplemental Historic Property Survey Report with attached Archaeological Survey Report, Supplemental Archaeological Survey Report, Finding of Effect, Project-specific Programmatic Agreement (Project Programmatic Agreement), and Cultural Resources Management Plan for the proposed project.

The City of Paso Robles (City), in conjunction with Caltrans District 5, proposes the Undertaking to improve the existing unsignalized intersection by constructing a new overcrossing, half-cloverleaf exchange, and realignments of roadway extensions. The project is located between post miles 31.0 to 32.5 on Highway 46, approximately 2 miles east of the Highway 101 intersection, in Paso Robles, San Luis Obispo County. A full project description and

depiction of the Area of Potential Effects can be found on pages 1-2 of the Historic Property Survey Report.

As a result of identification and evaluation efforts to date, Caltrans has documented one historic property in the Area of Potential Effects: The Johnson House. At this time, no archaeological resources have been identified, and no archaeological resources are known within the Area of Potential Effects.

Caltrans has applied the Criteria of Adverse Effect as defined in 36 Code of Federal Regulations 800.5(a)(1) and has determined that the Undertaking will not adversely affect the Johnson House given the following conditions:

- Caltrans will develop a Vibration Monitoring Plan for the undertaking.
- During a preconstruction meeting, the responsible parties will ensure that the sensitivity of and the vibration monitoring plan for the Johnson House are known to construction crews, especially those planned to operate vibratory or static rollers.
- Vibration monitoring by a qualified professional will be completed by the vibration monitoring contractor within 35 feet or less of the Johnson House. If vibration exceeds the 0.12 in/sec peak particle velocity threshold, the vibration monitor contractor should have the authority to halt construction and identify alternate ways to complete project construction within 35 feet or less of the Johnson House.

A total of seventy-nine percent of the Area of Potential Effects was subject to pedestrian archaeological survey for the original Archaeological Survey Report in March 2020. Though several attempts were made, the City was unable to obtain landowner access to three private parcels. Access restrictions also currently preclude subsurface exploration of areas of sensitivity for unknown archaeological deposits in the Area of Potential Effects. Due to these access restrictions, Caltrans has determined that a phased approach to completing identification, evaluation, and application of the Criteria of Adverse Effect is appropriate for the Undertaking, pursuant to Stipulation XII.A of the Section 106 Programmatic Agreement. Caltrans and the City propose to complete Section 106 responsibilities in accordance with the submitted Project Programmatic Agreement and Cultural Resources Management Plan.

Based on my review of the submitted documentation, I have the following comments:

- I have no objections to Caltrans' finding that the proposed project will have no adverse effect on the Johnson given the above conditions.

- The Project Programmatic Agreement and Cultural Resources Management Plan are currently under review and State Historic Preservation Officer comments will be provided in a separate letter.

If you have any questions, please contact Natalie Lindquist at natalie.lindquist@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

Chapter 5 List of Preparers

The following persons were principally responsible for review and preparation of this Initial Study/Environmental Assessment.

California Department of Transportation

Ruben Atilano, Professional Engineer, Transportation Engineer - Civil. Bachelor of Science, Civil Engineering, San Francisco State University; Master of Science, Civil Engineering, California Polytechnic State University, San Luis Obispo; 2 years in the fields of air quality and noise evaluation. Contribution: Air Quality Report, Noise Study Report, and Noise Abatement Decision Report oversight.

Myles Barker, Editorial Specialist. Bachelor of Arts, Mass Communication and Journalism, California State University, Fresno; 7 years of writing and editing experience. Contribution: Technical Editor.

Robert Carr, Professional Landscape Architect California 3473, Associate Landscape Architect. Bachelor of Science, Landscape Architecture, California Polytechnic State University, San Luis Obispo; over 32 years of experience preparing visual impact evaluations. Contribution: project Visual Impact Assessment oversight.

Benedict Erchul, Professional Engineer, Senior Hydraulic Engineer. Bachelor of Science, Civil Engineering; 16 years of experience in the field of hydraulics, floodplain, and fish passage studies. Contribution: project floodplain study oversight.

Matt Fowler, Senior Environmental Planner (Branch Chief), Environmental Analysis Branch. Bachelor of Arts, Geography/Methods of Geographic Analysis, San Diego State University, San Diego; 22 years of experience in the field of environmental planning. Contribution: project Initial Study/Draft Mitigated Negative Declaration and Environmental Assessment oversight.

Damon Haydu, Professionally Qualified Staff Principal Investigator, Associate Environmental Planner (Archaeologist). Master of Arts, Cultural Resources Management, Sonoma State University, Rohnert Park; 22 years of experience in all phases of cultural resource management. Contribution: project Historic Property Search Report and Archaeological Survey Report oversight.

Michael Hollier, Associate Environmental Planner (Generalist). Bachelor of Arts, History, University of Louisiana, Lafayette; 17 years of experience in the fields of transportation, land use, and environmental planning.

Contribution: project Initial Study/draft Proposed Mitigated Negative Declaration and Environmental Assessment.

Krista Kiaha, Heritage Resources Coordinator, Senior Environmental Scientist (Branch Chief). Master of Science, Anthropology, Idaho State University; 25 years of experience in the field of cultural resource management. Contribution: project Historic Property Search Report, Historic Resources Evaluation Report, Archaeological Survey Report, and Finding of No Adverse Effect without Standard Conditions oversight.

Rajvi Koradia, Transportation Engineer (Civil). Master of Science, Civil and Environmental Engineering, San José State University; Bachelor of Science, Environmental Engineering, Lalbhai Dalpatbhai College of Engineering; 4 years of experience in the field of environmental engineering. Contribution: project Air Quality Report, Noise Study Report, Noise Abatement Decision Report, Paleontological Identification Report, Paleontological Evaluation Report, Paleontological Mitigation Plan oversight.

Lindsay Kozub, Professionally Qualified Staff Principal Architectural Historian, Associate Environmental Planner (Architectural Historian). Master of Arts, History/Cultural Resource Management, Colorado State University; Bachelor of Arts, History, University of Montana; Bachelor of Science, Business, Montana State University; 12 years of experience in historical and architectural documentation, historic preservation, and cultural resource management. Contribution: project Historic Property Search Report, Historic Resources Evaluation Report, and Finding of No Adverse Effect without Standard Conditions oversight.

Kristen Langager, Professional Landscape Architect CA 6427, Associate Landscape Architect. Bachelor of Science, Landscape Architecture, California Polytechnic State University, San Luis Obispo; 16 years of experience in the field of landscape architecture. Contribution: project Visual Impact Assessment oversight.

Isaac Leyva, Professional Geologist California 9842, Engineering Geologist. Bachelor of Science, Geology, California State University, Bakersfield; 34 years of experience in the fields of petroleum geology, environmental geology, and geotechnical engineering. Contribution: project Initial Site Assessment, Paleontological Identification Report, Paleontological Evaluation Report, Paleontological Mitigation Plan, and Water Quality Assessment oversight.

Karl Mikel, Professional Engineer, Qualified Stormwater Prevention Plan Developer, Senior Transportation Engineer (Branch Chief). Bachelor of

Science, Environmental Engineering, California Polytechnic State University San Luis Obispo; Master of Science, Civil/Environmental Engineering, California Polytechnic State University San Luis Obispo; 19 years of experience in the field of environmental engineering. Contribution: project Air Quality Report, Noise Study Report, Noise Abatement Decision Report, Initial Site Assessment, Paleontological Identification Report, Paleontological Evaluation Report, Paleontological Mitigation Plan, and Water Quality Assessment oversight.

Jill O'Connor, Associate Environmental Planner (Generalist). Master of Arts, History, California Polytechnic State University, San Luis Obispo; Bachelor of Science, Natural Resources Management, California Polytechnic State University; over 35 years of experience in the field of environmental planning. Contribution: Community Impact Assessment oversight and NEPA compliance review.

Connor Ritchie, Environmental Scientist (Biologist). Bachelor of Science, Biological Sciences, California Polytechnic State University, San Luis Obispo; 7 years of experience conducting research, inventory, and analysis of special-status plant and animal species. Contribution: project Natural Environment Study and Jurisdictional Waters Assessment oversight.

Kaya Wiggins, Environmental Scientist (Archaeologist). Master of Arts, Applied Anthropology, California State Polytechnic University, Humboldt, and Bachelor of Science, Anthropology and Geography, California State Polytechnic University, San Luis Obispo; 10 years of experience in the field of California archaeology. Contribution: project Historic Property Survey Report, Historic Resources Evaluation Report, Archaeological Survey Report, and Finding of No Adverse Effect without Standard Conditions oversight.

City of Paso Robles

Ditas Esperanza, Capital Projects Engineer. Master of Arts, Public Administration, California State University, Northridge; Bachelor of Science, Engineering, University of California, Irvine; 40 years of private and public sector civil engineering experience. Contribution: Project Manager on behalf of the City. Guided and provided direction to the consultant toward the project development and final design and reports. Managed public expectations and liaison between consultants and Caltrans and City council.

Consultants

Teferi Abere, Principal Project Manager, Mott MacDonald. Master of Science, Civil Engineering, San Jose State University; more than 25 years of engineering experience in management and delivery of highway and roadway projects. Contribution: Consultant Project Manager, management of project's Project Approval and Environmental Document tasks and deliverables.

Ravi Narayanan, Senior Transportation Planner, Mott MacDonald. Master of Science, Transportation Engineering, University of California at Davis; more than 25 years of progressive experience and expertise in Transportation Engineering and Transportation Planning. Contribution: Project Traffic Operations Analysis, Traffic Safety Analysis, Travel Demand Modeling and Forecasting.

Alan Ashimine, Environmental Manager, Michael Baker International. Bachelor of Arts, Environmental Analysis and Design, University of California, Irvine; 22 years of environmental planning experience. Contribution: Managed and wrote the Initial Study/Environmental Assessment.

Jessica Ditto, Senior Environmental Analyst, Michael Baker International. Bachelor of Arts, Communications, University of California, Los Angeles; 9 years of environmental planning experience. Contribution: Assisted in the coordination of the environmental document for the project and wrote the Initial Study/Environmental Assessment.

Renee Gleason, Senior Environmental Analyst, Michael Baker International. Bachelor of Arts, English, California State University, San Bernardino; 16 years of environmental planning experience. Contribution: Wrote the Community Impact Assessment and related sections of the Initial Study/Environmental Assessment.

Winnie Woo, Environmental Analyst, Michael Baker International. Bachelor of Arts, Philosophy; Bachelor of Science, Environmental Science and Policy, Chapman University; 3 years of environmental planning experience. Contribution: Wrote the Initial Study/Environmental Assessment.

Oscar Escobar, Environmental Analyst, Michael Baker International. Bachelor of Science, Environmental Management, California State Polytechnic University, San Luis Obispo; 1 year of environmental planning experience. Contribution: Wrote the Initial Study/Environmental Assessment.

Allison Beauregard, Environmental Analyst, Michael Baker International. Master of Urban Planning, Urban Planning, California State University,

Northridge; Bachelor of Arts, English, University of Vermont; 2 years of environmental planning experience. Contribution: Wrote the Initial Study/Environmental Assessment.

Zhe Chen, Technical Specialist, Michael Baker International. Master of Business Administration, Business Administration, University of California, Irvine, Master of Science, Environmental Science and Engineering, Stanford University; Bachelor of Science, Chemistry, Peking University; 7 years of environmental planning experience. Contribution: Wrote the noise, air quality, energy, and climate change sections of the Initial Study/Environmental Assessment.

Brad Losey, Project Engineer-Surface Water, Michael Baker International. Bachelor of Science, Civil Engineering, University of California, Irvine; 18 years of engineering experience. Contribution: Prepared the Summary Floodplain Encroachment Report to support the Initial Study/Environmental Assessment.

Nora Jans, Associate Engineer, Michael Baker International. Bachelor of Arts, Environmental Studies, University of California, Santa Cruz; 21 years of environmental experience. Contribution: Prepared the Water Quality Assessment Report to support the Initial Study/Environmental Assessment.

Margo Nayyar, Principal Architectural Historian, Michael Baker International. Master of Arts, Public History, California State University, Sacramento; Bachelor of Arts, History, University of California, Santa Cruz; 12 years of environmental planning experience. Contribution: Prepared the cultural reports to support the Initial Study/Environmental Assessment.

Cathy Johnson, Landscape Architect, Michael Baker International. Bachelor of Science, Ornamental Horticulture, Washington State University; 30 years of landscape architecture experience. Contribution: Prepared the Visual Impact Assessment to support the Initial Study/Environmental Assessment.

Kristen Bogue, Visual Specialist, Michael Baker International. Bachelor of Arts, Environmental Analysis and Design, University of California, Irvine; 17 years of environmental planning experience. Contribution: Prepared the Visual Impact Assessment to support the Initial Study/Environmental Assessment.

Kim Scott, Principal Paleontologist, Cogstone. Master of Science, Biology with Paleontology Emphasis, California State University, San Bernardino; Bachelor of Science, Geology, University of California, Los Angeles; 20 years of paleontology and geology experience.

Contribution: Prepared the paleontological reports to support the Initial Study/Environmental Assessment.

Kurt Legleiter, Principal, Ambient Air Quality and Noise Consulting, Limited Liability Company. Bachelor of Science, Environmental Health Science, Bachelor of Arts, Urban and Environmental Planning, California State University, Fresno; 30 years of air quality and noise consulting experience. Contribution: Prepared the air quality and noise reports to support the Initial Study/Environmental Assessment.

Joyce Hunting, Senior Biologist, Hunting Environmental, Limited Liability Company. Master of Science, Conservation Biology, California State University, Sacramento; Bachelor of Arts, Biology, Zoology, Humboldt State University; 20 years of biologist experience. Contribution: Prepared the biological and wetland delineation reports to support the Initial Study/Environmental Assessment.

Timothy Conroy, Senior Geologist, Earth Systems. Bachelor of Science, Geological Sciences, University of California, Santa Barbara; more than 35 years of progressively responsible experience providing geologic and environmental consulting services to public- and private-sector clients. Contribution: Prepared the Phase I Initial Study Assessment to support the Initial Study/Environmental Assessment.

Chapter 6 Distribution List

The Initial Study/Environmental Assessment and/or a Notice of Availability was distributed to the following federal, state, regional, and local agencies, elected officials, interested groups, organizations and individuals, and utilities and service providers in the project area. In addition, all property owners and residents/occupants located within 500 feet of the proposed project were provided with a Notice of Availability.

Federal Agencies

U.S. Army Corps of Engineers
Attention: Intergovernmental Reviewer
450 Golden Gate Avenue, Room 6556, 4th Floor
San Francisco, California 94102

U.S. Department of the Interior
Attention: Intergovernmental Reviewer
Office of Environmental Policy and Compliance
Main Interior Building. MS 2340
1849 C Street, Northwest
Washington, District of Columbia 20240

U.S. Fish and Wildlife Service
Attention: Intergovernmental Reviewer
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003-7726

U.S. Department of Agriculture
Natural Resources Conservation Service
Attention: Intergovernmental Reviewer
65 South Main Street Suite 106
Templeton, California 93465-8703

State Agencies

State of California, Department of Fish and Wildlife, Region 4
Attention: Intergovernmental Reviewer
1234 East Shaw Avenue
Fresno, California 93710

Eileen Sobeck, Executive Director
State Water Resources Control Board
1001 I Street
Sacramento, California 95814

California Department of Water Resources
Attention: Intergovernmental Reviewer
715 P Street
Sacramento, California 95814
P.O. Box 942836
Sacramento, California 94236-0001

California Department of Conservation
Environmental Review
715 P Street, MS 1900
Sacramento, California 95814

California Highway Patrol
Attention: Enforcement and Planning Division
Special Programs Section
Transportation Planning Unit
601 North 7th Street
Sacramento, California 95811

Native American Heritage Commission
Attention: Environmental and Cultural Department
1550 Harbor Boulevard, Suite 100
West Sacramento, California 95691

California Air Resources Board
1001 I Street
Sacramento, California 95814

California Transportation Commission
Attention: Mitchell Doucette
Digital submission to mitchell.doucette@dot.ca.gov

Regional Agencies

San Luis Obispo County
Air Pollution Control District
Attention: Intergovernmental Reviewer
3433 Roberto Court
San Luis Obispo, California 93401

Geoff Straw
San Luis Obispo Regional Transit Authority
179 Cross Street, Suite A
San Luis Obispo, California 93401

Doctor Jean-Pierre Wolff, Chair
Regional Water Quality Control Board–Region Number 3
895 Aerovista Place, Suite 101

San Luis Obispo, California 93401

San Luis Obispo Council of Governments
Attention: Intergovernmental Reviewer
1114 Marsh Street
San Luis Obispo, California 93401

County and City Agencies

Trevor Keith
Director of Planning and Building
San Luis Obispo County Planning Department
976 Osos Street Room 200
San Luis Obispo, California 93408

San Luis Obispo County Fire Department
Attention: Intergovernmental Reviewer
635 North Santa Rosa Street
San Luis Obispo, California 93405

Gina Fitzpatrick
President
Paso Robles Chamber of Commerce
1225 Park Street,
Paso Robles, California 93446

Sheriff Ian Parkinson
San Luis Obispo County Sheriff Department
Attention: Intergovernmental Reviewer
1585 Kansas Avenue
San Luis Obispo, California 93405

City of Paso Robles Fire Department
Attention: Intergovernmental Reviewer
900 Park Street
Paso Robles, California 93446

City of Paso Robles Police Department
Attention: Intergovernmental Reviewer
900 Park Street,
Paso Robles, California 93446

Tom Frutchey
City Manager
City of Paso Robles
1000 Spring Street
Paso Robles, California 93446

John Diodati
Director
County of San Luis Obispo Department of Public Works
976 Osos Street, Suite 207
San Luis Obispo, California 93408

Elected Officials

Honorary Dianne Feinstein, Member
U.S. Senate
2500 Tulare Street, Suite 4290
Fresno, California 93721

Honorary Alex Padilla, Member
U.S. Senate
2500 Tulare Street, Suite 5290
Fresno, California 93721

Honorary Salud Carbajal
District Office of U.S. Representative, 24th District
1411 Marsh Street, Suite 205
San Luis Obispo, California 93401

Honorary John Laird
District Office of California State Senator, 17th District
1026 Palm Street, Suite 201
San Luis Obispo, California 93401

Honorary Jordan Cunningham
District Office of Assembly Member, 35th District
1304 Broad Street
San Luis Obispo, California 93401

Mayor Steven W. Martin
City of Paso Robles
1000 Spring Street
Paso Robles, California 93446

Chris Bausch, Council Member
City of Paso Robles
1000 Spring Street
Paso Robles, California 93446

Maria Garcia, Former Council Member
City of Paso Robles
1000 Spring Street
Paso Robles, California 93446

Steve Gregory
Mayor Pro-Term
City of Paso Robles
1000 Spring Street
Paso Robles, California 93446

John Hamon, Council Member
City of Paso Robles
1000 Spring Street
Paso Robles, California 93446

Fred Strong, Council Member
City of Paso Robles
1000 Spring Street
Paso Robles, California 93446

John Peschong, First District
County of San Luis Obispo Board of Supervisors
1055 Monterey Street D430
San Luis Obispo, California 93408

Utility Providers

American Telephone and Telegraph Corporate Office
Attention: Facilities Planning
12900 Park Plaza Drive
Cerritos, California 90703

Pacific Gas and Electric Company
77 Beale Street, 24th Floor
San Francisco, California 94105

City of Paso Robles Water
Water Production and Distribution Division
Attention: Facilities Planning
1230 Paso Robles Street
Paso Robles, California 93446

Southern California Gas Company
Attention: Facilities Planning
211 North Sunrise Way
Palm Springs, California 92262

City of Paso Robles
Wastewater Division
Attention: Facilities Planning
3200 Sulphur Springs Road
Paso Robles, California 93446

Interested Groups, Organizations, and Individuals

Mona Olivas Tucker
Tribal Chair
yak tityu tityu yak tilhini–Northern Chumash Tribe
660 Camino Del Rey
Arroyo Grande, California 93420

Fred Collins
Northern Chumash Tribal Council
Tribal Administrator
67 South Street
San Luis Obispo, California 93401

Attention: Tribal Administrator
Salinan Tribe of Monterey and San Luis Obispo Counties
7070 Morro Road, Suite A
Atascadero, California 93422

Fred Segobia
Salinan Tribe of Monterey, San Luis Obispo, and San Benito Counties
46451 Little Creek Court
King City, California 93930-9781

Attention: Tribal Administrator
Torres Martinez Desert Cahuilla Indians Post Office Box 1160
Thermal, California 92274

Karen R. White
Xolon Salinan Tribe
Council Chair
Post Office Box 7045
Spreckels, California 93962

El Paso de Robles Historical Society
Post Office Box 2875
Paso Robles, California 93447

California Native Plant Society
2707 K Street, Suite 1
Sacramento, California 95816-5113

California Wildlife Federation
1012 J Street
Sacramento, California 95814

Sierra Club
1414 K Street, Suite 500
Sacramento, California 95814

Business Manager
Operating Engineers Local Number 3
1620 South Loop Road
Alameda, California 94502

Bike SLO County
860 Pacific St, Suite 105
San Luis Obispo, California 93401

San Luis Obispo Bicycle Club
P.O. Box 1585
San Luis Obispo, California 93406

Paso Robles Chamber of Commerce
1225 Park Street
Paso Robles, California 93446

Paso Robles Municipal Airport
4912 Wing Way
Paso Robles, California 93446

Bruce C White
2912 Union Road
Paso Robles, California 93446

2916 Union Road, Limited Liability Company
2916 Union Road
Paso Robles, California 93446

James T. Ehrke
2944 Union Road
Paso Robles, California 93446

Cristina Sharp
2948 Union Road
Paso Robles, California 93446

Ardmore Development Company, Limited Liability Company
2125 Ardmore Road
Paso Robles, California 93446

City of Paso Robles
2930 Union Road
Paso Robles, California 93446

Carolyn E Lori
2965 Union Road
Paso Robles, California 93446

City of Paso Robles 955
2955 Union Road
Paso Robles, California 93446

Frank Rak Junior
2610 Union Road
Paso Robles, California 93446

Michael S Hayley
3189 Highway 46
Paso Robles, California 93446

David P Obrein
3185 Highway 46
Paso Robles, California 93446

Owner/Occupant
2950 Union Road
Paso Robles, California 93446

Paso Robles Athletic Club, a California Limited Partnership
2975 Union Road
Paso Robles, California 93446

Ravine Waterpark, Limited Liability Company
2981 Union Road
Paso Robles, California 93446

D and D Associates, Limited Liability Company
2340 Prospect Avenue
Paso Robles, California 93446

Highway 46 East Properties, Limited Liability Company
2345 Golden Hill Road
Paso Robles, California 93446

Route 19, Limited Liability Company
2348 Golden Hill Road
Paso Robles, California 93446

Danny Tristao
2925 Union Road
Paso Robles, California 93446

Jaime P. Bea
2025 Mesa Road
Paso Robles, California 93446

Highway 46 East Properties, Limited Liability Company
2034 Mesa Road
Paso Robles, California 93446

Highway 46 East Properties, Limited Liability Company
2335 Golden Hill Road
Paso Robles, California 93446

East Paso Mini Storage, Limited Liability Company
2230 Golden Hill Road
Paso Robles, California 93446

Brian E Webster
2135 Golden Hill Road
Paso Robles, California 93446

Paso Passivo
2915 Union Road
Paso Robles, California 93446

Paso Passivo
2917 Union Road
Paso Robles, California 93446

Paso Passivo
2919 Union Road
Paso Robles, California 93446

Doyle L Timmons
2921 Union Road
Paso Robles, California 93446

Masek Stahl, Limited Liability Company
2323 Tuley Road
Paso Robles, California 93446

CWR Properties Ac, Limited Liability Company
2324 Tuley Road
Paso Robles, California 93446

Cypress Equities Group 2
2935 Union Road
Paso Robles, California 93446

Thomas M Wilber
2931 Union Road
Paso Robles, California 93446

Highway 46 East Properties, Limited Liability Company
2044 Mesa Road
Paso Robles, California 93446

Robert F Blackburn
2139 Vanderlip Court
Paso Robles, California 93446

Paso Robles Self Storage
2941 Union Road
Paso Robles, California 93446

Brian D Wilson
2328 Golden Hill Road
Paso Robles, California 93446

Golden Hills Investment Company, Limited Liability Company
2200 Golden Hill Road
Paso Robles, California 93446

Brian Ferguson
1905 Mesa Road
Paso Robles, California 93446

Paul R Junior Burns
1903 Mesa Road
Paso Robles, California 93446

Jon C. Bourgault
2300 Arciero Court
Paso Robles, California 93446

Carla Concha
2302 Arciero Court
Paso Robles, California 93446

Jose Rubio
2304 Arciero Court
Paso Robles, California 93446

Dennis J Miller
2321 Arciero Court
Paso Robles, California 93446

Michael J Callahan
2319 Arciero Court
Paso Robles, California 93446

Janice E. Steele
2317 Arciero Court
Paso Robles, California 93446

Gene R. Norwood
2313 Arciero Court
Paso Robles, California 93446

Donald A. Berber
2311 Arciero Court
Paso Robles, California 93446

Brent M Keller
2309 Arciero Court
Paso Robles, California 93446

Noel Allan
2307 Arciero Court
Paso Robles, California 93446

Silvia M. Loftin
2305 Arciero Court
Paso Robles, California 93446

Gloria J. Anderson
2303 Arciero Court
Paso Robles, California 93446

Lynn N. Crawford
1811 Mesa Road
Paso Robles, California 93446

Delbert N. Chausse
1809 Mesa Road
Paso Robles, California 93446

George I. and Natalie A. Akin
1809 Mesa Road
Paso Robles, California 93446

Bret H. Halebsky
2302 Mesa Vista Court
Paso Robles, California 93446

Leonita and Nicola Ruberto
2304 Mesa Vista Court
Paso Robles, California 93446

Tim Mullikin
2306 Mesa Vista Court
Paso Robles, California 93446

Armando R. Kamekona
2308 Mesa Vista Court
Paso Robles, California 93446

Dolores Martinez-Peterson
2310 Mesa Vista Court
Paso Robles, California 93446

Janice K. Hafner
2309 Mesa Vista Court
Paso Robles, California 93446

Lynette L. Keyser
2307 Mesa Vista Court
Paso Robles, California 93446

Darrick G. Webster
2305 Mesa Vista Court
Paso Robles, California 93446

Carolyn Mushmel
2303 Mesa Vista Court
Paso Robles, California 93446

Earl G. Gerber
1805 Mesa Road
Paso Robles, California 93446

Tim and Deborah Hieger
1803 Mesa Road
Paso Robles, California 93446

Philip G. Hassig
1801 Mesa Road
Paso Robles, California 93446

Jerry L. Hartzell
2302 Apion Court
Paso Robles, California 93446

Paul W. Stamm
2304 Apion Court
Paso Robles, California 93446

Yolanda Gastelo
2306 Apion Court
Paso Robles, California 93446

Linda I. Stanley
2308 Apion Court
Paso Robles, California 93446

Alan Belmonte
2310 Apion Court
Paso Robles, California 93446

Adam Earl
2309 Apion Court
Paso Robles, California 93446

David A. Paasch
2307 Apion Court
Paso Robles, California 93446

Melinda L. Whitney
2305 Apion Court
Paso Robles, California 93446

Wesley A. Butterwick
2303 Apion Court
Paso Robles, California 93446

Daniel L. Shannon
2301 Apion Court
Paso Robles, California 93446

City of Paso Robles 955
2315 Arciero Court
Paso Robles, California 93446

Harley Voss
2301 Signora Rosa Court
Paso Robles, California 93446

Zack J. Anthony
2303 Signora Rosa Court
Paso Robles, California 93446

Douglas W. Bright
2305 Signora Rosa Court
Paso Robles, California 93446

Ryan M. Graves
2307 Signora Rosa Court
Paso Robles, California 93446

Vinod Patel
2309 Signora Rosa Court
Paso Robles, California 93446

Britney C. Harris
2311 Signora Rosa Court
Paso Robles, California 93446

Timothy A. Dueck
2313 Signora Rosa Court
Paso Robles, California 93446

Clark B. Rudy
2306 Signora Rosa Court
Paso Robles, California 93446

Fabian Grandoli
2304 Signora Rosa Court
Paso Robles, California 93446

Charles R. Pressley
2302 Signora Rosa Court
Paso Robles, California 93446

City of Paso Robles 955
2309 Signora Rosa Court
Paso Robles, California 93446

Lela A. Blair
1911 Mesa Road
Paso Robles, California 93446

Roxane Willingham
1684 Bella Vista Court
Paso Robles, California 93446

Jeantte P. Lopez
1682 Bella Vista Court
Paso Robles, California 93446

David P. Hernandez
1680 Bella Vista Court
Paso Robles, California 93446

Richard J. Lojacono
1678 Bella Vista Court
Paso Robles, California 93446

Micah J. Gammons
1676 Bella Vista Court
Paso Robles, California 93446

Rosalio L. Zamora
1675 Bella Vista Court
Paso Robles, California 93446

William J. Taylor
1677 Bella Vista Court
Paso Robles, California 93446

Anthony Charnley
1681 Bella Vista Court
Paso Robles, California 93446

Lawrence B. Wise
1683 Bella Vista Court
Paso Robles, California 93446

Michael A. Mcgarvey
2208 Cielo Court
Paso Robles, California 93446

Richard H. Junior Bell
1733 Mesa Road
Paso Robles, California 93446

William M. Bonaiuto
2302 Cielo Court
Paso Robles, California 93446

Duong Tran
2304 Cielo Court
Paso Robles, California 93446

Tran-Thai Living Trust
2306 Cielo Court
Paso Robles, California 93446

City of Paso Robles 955
2303 Cielo Court
Paso Robles, California 93446

Charles W. Bowler
1781 Bella Vista Court
Paso Robles, California 93446

Andrew and Shawna Weyrich
1782 Bella Vista Court
Paso Robles, California 93446

City of Paso Robles 955
1789 Bella Vista Court
Paso Robles, California 93446

Derek A. Baer
1711 Experimental Station Road
Paso Robles, California 93446

Josiah E. Mensing
1705 Experimental Station Road
Paso Robles, California 93446

Eric Dobroth
1700 Experimental Station Road
Paso Robles, California 93446

Alvaro M. and Diorene R. Faria
1520 Experimental Station Road
Paso Robles, California 93446

Owner/Occupant
1412 Experimental Station Road
Paso Robles, California 93446

Peter F. Johnston
1815 Experimental Station Road
Paso Robles, California 93446

Christopher M. Voelker
1921 Experimental Station Road
Paso Robles, California 93446

Roger L. Brown
1925 Experimental Station Road
Paso Robles, California 93446

Alla Osetinsky
1929 Experimental Station Road
Paso Robles, California 93446

Thomas C. Byrd
1934 Experimental Station Road
Paso Robles, California 93446

Scott Ehrke
1928 Experimental Station Road
Paso Robles, California 93446

Mark D. Henry
1924 Experimental Station Road
Paso Robles, California 93446

Sylvie Beauregard
1918 Experimental Station Road
Paso Robles, California 93446

Pfeil Enterprises, Limited Liability Company
2401 Golden Hill Road
Paso Robles, California 93446

Paso Golden Hill, Limited Liability Company
2449 Golden Hill Road
Paso Robles, California 93446

Scott A. Mcmillan
2933 Golden Hill Road
Paso Robles, California 93446

Ronald S. Gonzales
2437 Golden Hill Road
Paso Robles, California 93446

Halle Properties, Limited Liability Company
2441 Golden Hill Road
Paso Robles, California 93446

James C. Cushman
2220 Tractor Street
Paso Robles, California 93446

Lester J. Cushman
2200 Tractor Street
Paso Robles, California 93446

Lester J. Cushman
2350 Tractor Street
Paso Robles, California 93446

Michael J. Mullahey
2105 Tractor Street
Paso Robles, California 93446

Michael J. Mullahey
2127 Tractor Street
Paso Robles, California 93446

Michael J. Mullahey
2125 Tractor Street
Paso Robles, California 93446

Henry A. Heer
2225 Tractor Street
Paso Robles, California 93446

Michael J. Mullahey
2107 Tractor Street
Paso Robles, California 93446

Trattore Stradale California, Limited Liability Company
2362 Tractor Street
Paso Robles, California 93446

Henry A. Heer
3290 Combine Street
Paso Robles, California 93446

Henry A. Heer
2365 Tractor Street
Paso Robles, California 93446

Paso Golden Hill, Limited Liability Company
2465 Golden Hill Road
Paso Robles, California 93446

Paso Golden Hill, Limited Liability Company
2461 Golden Hill Road
Paso Robles, California 93446

Paso Golden Hill, Limited Liability Company
2425 Golden Hill Road
Paso Robles, California 93446

Paso Golden Hill, Limited Liability Company
2429 Golden Hill Road
Paso Robles, California 93446

Paso Golden Hill, Limited Liability Company
2457 Golden Hill Road
Paso Robles, California 93446

Paso Golden Hill, Limited Liability Company
2453 Golden Hill Road
Paso Robles, California 93446

Lowe's Home Improvement Incorporated
2445 Golden Hill Road
Paso Robles, California 93446

Scott A. McMillian
2933 Golden Hill Road
Paso Robles, California 93446

Michael J. Mullahey
2510 Golden Hill Road
Paso Robles, California 93446

Colin G. Weyrick
2500 Golden Hill Road
Paso Robles, California 93446

Crop Production Service Incorporated
2502 Oakwood Street
Paso Robles, California 93446

Lindan California, Limited Liability Company
2400 Golden Hill Road
Paso Robles, California 93446

Clarke E. Moseley
2401 Oakwood Street
Paso Robles, California 93446

Colin G. Weyrick
2501 Oakwood Street
Paso Robles, California 93446

Dennis V. Gomer
2951 Wallace Drive
Paso Robles, California 93446

Owner/Occupant
2960 Union Road
Paso Robles, California 93446

Sterling G. Rava, Limited Liability Company
2501 Golden Hill Road
Paso Robles, California 93446

Michael J. Mullahey
2520 Golden Hill Road
Paso Robles, California 93446

Lester J. Cushman
2620 Golden Hill Road
Paso Robles, California 93446

PRG Paso Industrial Holdings, Limited Liability Company
2262 Wisteria Lane
Paso Robles, California 93446

PRG Paso Industrial Holdings, Limited Liability Company
2270 Wisteria Lane
Paso Robles, California 93446

PRG Paso Industrial Holdings, Limited Liability Company
2250 Wisteria Lane
Paso Robles, California 93446

PRG Paso Industrial Holdings, Limited Liability Company
2280 Wisteria Lane
Paso Robles, California 93446

PRG Paso Industrial Holdings, Limited Liability
2282 Wisteria Lane
Paso Robles, California 93446

PRG Paso Industrial Holdings, Limited Liability Company
3289 Paso Robles Boulevard
Paso Robles, California 93446

PRG Paso Industrial Holdings, Limited Liability
2290 Wisteria Lane
Paso Robles, California 93446

Justin Vineyards and Winery, Limited Liability Company
2297 Wisteria Lane
Paso Robles, California 93446

Ravine Waterpark, Limited Liability Company
2301 Airport Road
Paso Robles, California 93446

Foley Family Farms, Limited Liability Company
2300 Airport Road
Paso Robles, California 93446

Justin Vineyards and Winery, Limited Liability Company
2295 Wisteria Lane
Paso Robles, California 93446

Thomas H. Erskine
2301 Paso Robles Boulevard
Paso Robles, California 93446

Resident
2298 Wisteria Lane
Paso Robles, California 93446

Resident
2299 Wisteria Lane
Paso Robles, California 93446

Sun Wine Country Recreational Vehicle, Limited Liability Company
2500 Airport Road
Paso Robles, California 93446

Kenneth P. Mundee
3350 Highway 46
Paso Robles, California 93446

Bradley D. Hutcherson
3557 Combine Street
Paso Robles, California 93446

Farias C. and Sharp-Farias Trust
3559 Combine Street
Paso Robles, California 93446

Farias C. and Sharp-Farias Trust
3561 Combine Street
Paso Robles, California 93446

Central Valley Industrial Incorporated
3563 Combine Street
Paso Robles, California 93446

Michael G. Keller
3565 Combine Street
Paso Robles, California 93446

Michael D. Corson
3501 Combine Street
Paso Robles, California 93446

Ikin Giddit, Limited Liability Company
3505 Combine Street
Paso Robles, California 93446

Pamela C. Wilken
3507 Combine Street
Paso Robles, California 93446

Pamela C. Wilken
3511 Combine Street
Paso Robles, California 93446

Pamela C. Wilken
3515 Combine Street
Paso Robles, California 93446

Bejar Rico, Limited Liability Company
3519 Combine Street
Paso Robles, California 93446

Nicole Pebenito
3523 Combine Street
Paso Robles, California 93446

Gerald Hanson
3527 Combine Street
Paso Robles, California 93446

Twin Oaks Legacy, Limited Liability Company
3529 Combine Street
Paso Robles, California 93446

Twin Oaks Legacy, Limited Liability Company
3531 Combine Street
Paso Robles, California 93446

Twin Oaks Legacy, Limited Liability Company
3533 Combine Street
Paso Robles, California 93446

Twin Oaks Legacy, Limited Liability Company
3535 Combine Street
Paso Robles, California 93446

Twin Oaks Legacy, Limited Liability Company
3537 Combine Street
Paso Robles, California 93446

Ronald E. Jordan
3539 Combine Street
Paso Robles, California 93446

Jason Estrada
3553 Combine Street
Paso Robles, California 93446

James H. Mckenzie
3540 Combine Street
Paso Robles, California 93446

James H. Mckenzie
3542 Combine Street
Paso Robles, California 93446

James H. Mckenzie
3544 Combine Street
Paso Robles, California 93446

James H. Mckenzie
3546 Combine Street
Paso Robles, California 93446

Ryan Horn
3548 Combine Street
Paso Robles, California 93446

Carmen Ortiz
3554 Combine Street
Paso Robles, California 93446

David Campos
3556 Combine Street
Paso Robles, California 93446

Paul Rockwell
3558 Combine Street
Paso Robles, California 93446

Paso Robles Land and Cattle Company, Limited Liability Company
3560 Combine Street
Paso Robles, California 93446

Kevin M. Bohner
3508 Combine Street
Paso Robles, California 93446

Combine Commercial, Limited Liability Company
3510 Combine Street
Paso Robles, California 93446

Combine Commercial, Limited Liability Company
3512 Combine Street
Paso Robles, California 93446

Aaron Mills
3518 Combine Street
Paso Robles, California 93446

Red Beaver, Limited Liability Company
3520 Combine Street
Paso Robles, California 93446

Devin Capps
3528 Combine Street
Paso Robles, California 93446

Paso U.S.A.
3526 Combine Street
Paso Robles, California 93446

Kevin W. Brush
3545 Combine Street
Paso Robles, California 93446

Meznarich R. and C. Trust
3514 Combine Street
Paso Robles, California 93446

Ronald E. Jordan
3541 Combine Street
Paso Robles, California 93446

Palbrook, Limited Liability Company
3549 Combine Street
Paso Robles, California 93446

Next Step, Limited Liability Company
3550 Combine Street
Paso Robles, California 93446

Scott D. Beavers
3522 Combine Street
Paso Robles, California 93446

Suzanne Rava
2300 Paso Robles Blouevard
Paso Robles, California 93446

Peter H. Vanscherpes
2930 Union Road
Paso Robles, California 93446

Paso Highway Hotel Partners
2940 Union Road
Paso Robles, California 93446

City of Paso Robles 955
2955 Union Road
Paso Robles, California 93446

Frank R. Junior Rak
2961 Union Road
Paso Robles, California 93446

City of Paso Robles 955
2970 Union Road
Paso Robles, California 93446

Kevin Johnston
2476 Buena Vista Avenue
Livermore, California 94550

This page intentionally left blank

Appendix A Section 4(f): *De Minimis* Determination(s) and Resources Evaluated Relative to the Requirements of Section 4(f): No Use

Section 4(f) *De Minimis* Determination(s)

This section of the document discusses *de minimis* impact determinations under Section 4(f). Section 6009(a) of SAFETEA-LU amended Section 4(f) legislation at 23 U.S. Code 138 and 49 U.S. Code 303 to simplify the processing and approval of projects that have only *de minimis* impacts on lands protected by Section 4(f). This amendment provides that once the U.S. Department of Transportation determines that a transportation use of Section 4(f) property, after consideration of any impact avoidance, minimization, and mitigation or enhancement measures, results in a *de minimis* impact on that property, an analysis of avoidance alternatives is not required, and the Section 4(f) evaluation process is complete. The Federal Highway Administration's final rule on Section 4(f) *de minimis* findings is codified in 23 Code of Federal Regulations 774.3 and Code of Federal Regulations 774.17.

Responsibility for compliance with Section 4(f) has been assigned to the Department pursuant to 23 U.S. Code 326 and 327, including *de minimis* impact determinations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

Identification of Section 4(f) Properties

Section 4(f) applies to "… publicly owned land of a public park, recreation areas or wildlife and waterfowl refuge, or land of a historic site of national, state, or local significance." Publicly owned land is considered to be a park, recreation area, or wildlife and waterfowl refuge when the land has been officially designated as such or when federal, state, or local officials having jurisdiction over the land determine that one of its major purposes or functions is for park, recreation, or refuge purposes. (Federal Highway Administration Section 4(f) Policy Paper, July 2012) Any part of a publicly owned park, recreation area, refuge, or historic site is presumed to be significant unless there is a statement of insignificance relative to the whole park by the federal, state, or local official having jurisdiction over that property.

With respect to historic properties, for purposes of Section 4(f), a historic site is significant only if it is in or eligible for listing in the National Register unless the Federal Highway Administration determines that the application of Section

4(f) is otherwise appropriate. (Federal Highway Administration Section 4(f) Policy Paper)

Section 4(f) Study Areas

The area within 0.5 mile of the project's identified Area of Potential Impacts was used to define the Study Area for existing publicly owned recreation and park properties, including local, regional, state, and federal properties; existing play and sports fields of public schools with public access, publicly owned wildlife and waterfowl refuges and conservation areas; and existing off-street public bicycle, pedestrian, and equestrian trails. The Study Area was defined to identify an area large enough to assess the potential for the Build Alternative to result in direct and indirect impacts on Section 4(f) properties.

The Historic Property Survey Report (dated July 2020) and the Supplemental Historic Property Survey Report (dated August 2021) for the project identified properties listed, eligible for listing, or determined eligible for listing in the National Register within the Area of Potential Effects. The Area of Potential Effects was developed as part of the Historic Property Survey Report and Supplemental Historic Property Survey Report and was used as the Study Area for the Section 4(f) analyses for historic properties.

Additional discussion regarding the development of the Area of Potential Effects is provided in the Historic Property Survey Report for the project.

Description of Public and Private Parks, Recreational Facilities, and Wildlife Refuges

As noted above, Section 4(f) requires an analysis of potential project impacts to parks, recreational facilities, wildlife refuges, and historic properties that qualify as resources protected under Section 4(f).

There are no publicly owned wildlife and waterfowl refuges within 0.5 mile of the project site.

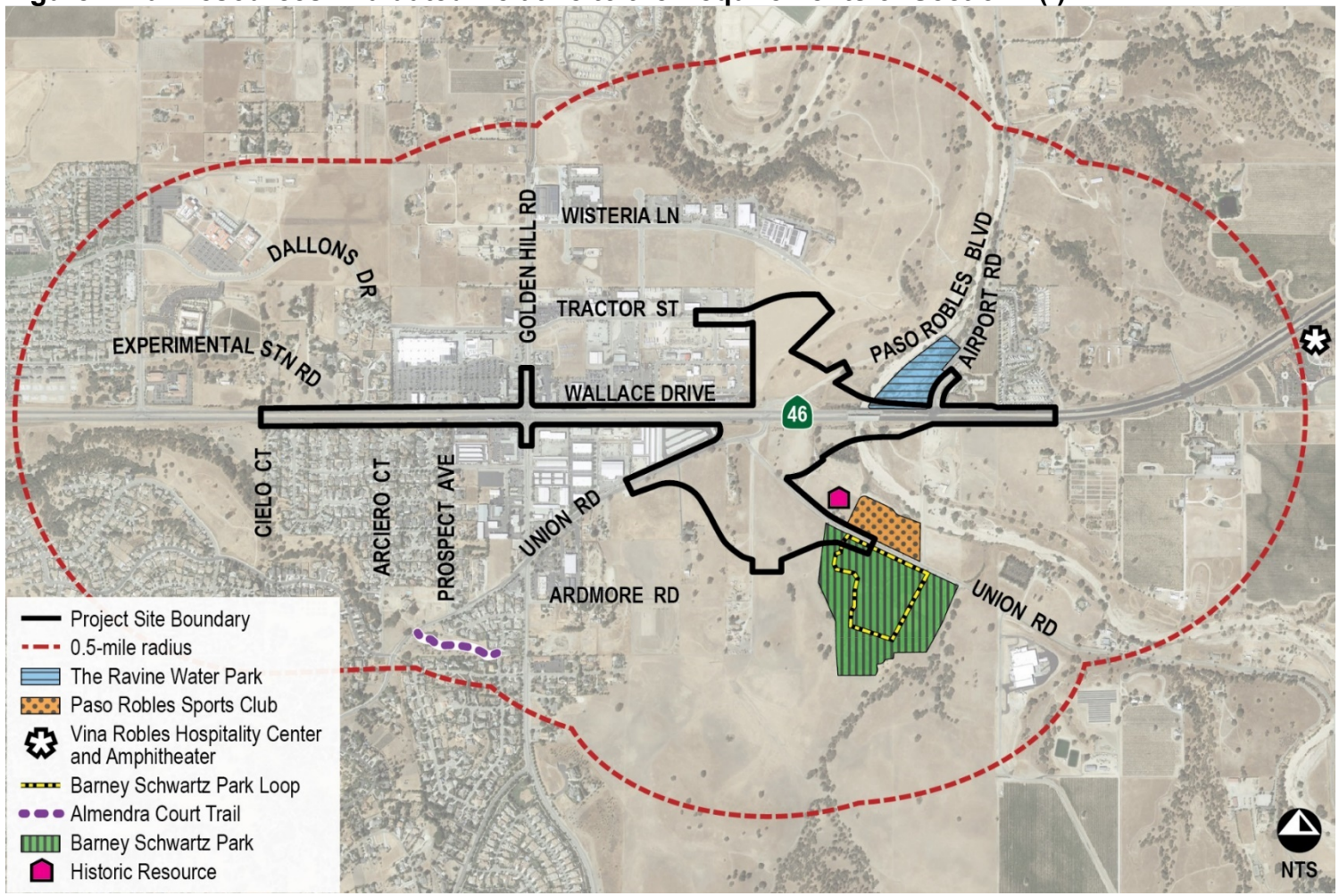
Five potential Section 4(f) park and recreational facilities within 0.5 mile of the project limits were identified. The locations of those resources are shown in Figure A-1a. The Barney Schwartz Park is subject to the provisions of Section 4(f) and is discussed under Resources Subject to the Provisions of Section 4(f)–De Minimis Determination. The Almendra Court Trail is subject to the provisions of Section 4(f) and is discussed under Resources Evaluated Relative to the Requirements of Section 4(f)–No-Use. As discussed under Resources Not Subject to the Provisions of Section 4(f), the Ravine Water Park, the Paso Robles Sports Club, and the Vina Robles Hospitality Center and Amphitheatre are not Section 4(f) facilities; therefore, the provisions of Section 4(f) do not apply.

Description of National Register of Historic Places Listed and Eligible Properties

Because this project is a federal undertaking, it must also comply with the National Historic Preservation Act (National Historic Preservation Act). The National Historic Preservation Act, implementing regulations of Code of Federal Register Title 36, Part 800.4(a)(1), requires the establishment of an Area of Potential Effects. The Area of Potential Effects is the geographic area or areas within which an undertaking may directly or indirectly alter the character or use of historic properties if any such properties exist. As described earlier, the Area of Potential Effects serves as the Study Area for Section 4(f) historic properties that are listed, eligible for listing, or assumed eligible for listing in the National Register for this undertaking. The Area of Potential Effects for the project is shown in the project's Historic Property Survey Report.

The Area of Potential Effects for this project was developed by Caltrans and the City of Paso Robles and includes the project areas that may be directly and indirectly affected by the project. Specifically, the Area of Potential Effects includes all areas of direct impacts, such as potential staging areas, and areas of indirect impacts, including parcels directly next to the State Route 46 East/Union Road intersection and through the project area, except in cases where physical buffers, such as nearby frontage roads, separate individual parcels from the project area. One potential Section 4(f) historic property, the Johnson House, was identified within the project limits.

Figure A-1a Resources Evaluated Relative to the Requirements of Section 4(f)



Resources Subject to the Provisions of Section 4(f)–De Minimis Determination

A *de minimis* impact involves using Section 4(f) property that is generally minor in nature. The temporary use of the Section 4(f) resource, together with any impact avoidance, minimization, and enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f).

Barney Schwartz Park

Barney Schwartz Park (designated in the City's General Plan as a "regional park") is at 2970 Union Road, south of the project site. This 40-acre park includes four baseball diamonds, three barbeques, two playgrounds, two concession stands, four soccer fields, two group pavilions, a lake, a walking trail, and restrooms. Four parking lots are provided at the western and northern portions of the park, and street parking is provided along eastbound Union Road north of the park. Access to the park is provided via two driveways along Union Road. The driveway at the northwestern corner of the park provides access to three of the parking lots. The driveway at the north/central portion of the park provides access to the fourth parking lot. The City owns and operates Barney Schwartz Park, which is open to the public. Thus, it is considered a Section 4(f) property under the provisions of Section 4(f).

The proposed project would include the realignment of the Barney Schwartz Park northwestern driveway to accommodate the new roundabout configuration proposed south of the new Union Road/State Route 46 East interchange. Realigning the driveway would include realigning the sidewalk and the curb and gutter to tie in with the existing Union Road alignment, removing the existing center median within the driveway, removing landscaping within the parking lot, and restriping the parking lot to update the parking configuration in the northwestern parking lot. The project would result in the loss of 11 parking spots in the northwestern parking lot.

The construction duration of the improvements to the northwest driveway would be minimal (up to six weeks). The northwest driveway/access point would be restored to pre-project conditions upon completion of the construction process, and the provision of sidewalks through the interchange is anticipated to result in beneficial recreational impacts over the long term. Short-term impacts to park operations are considered minimal and would not impair existing activities, features, or attributes of the existing park facility.

As such, the project would not result in the permanent incorporation of Barney Schwartz Park. The project would result in the temporary use of the Section 4(f) resource. Thus, implementation of the proposed project would not permanently adversely affect the activities, features, and attributes of Barney

Schwartz Park, and a *de minimis* use would occur; the City of Paso Robles concurred with this finding in a letter dated November 2, 2021. Further consultation is necessary to confirm the *de minimis* determination under Section 4(f). Caltrans would continue coordination with the City of Paso Robles before finalizing the Initial Study/Environmental Assessment to finalize the *de minimis* determination.

During the design and construction phases, a Traffic Management Plan would be coordinated with the City of Paso Robles Recreation Services Department to address safety for park users. The project would incorporate a stage construction approach, where only half of the driveway improvements would occur at a single time. While half of the driveway is being changed to accommodate project improvements, the other half would remain open for recreational access. The project would not impact the second driveway along Union Road. As such, park access from Union Road would be maintained at all times.

To minimize construction impacts at the northwest driveway of Barney Schwartz Park, the following measure would be incorporated into the construction contract:

- Parks and Recreation-1: To minimize construction impacts at the northwest driveway of Barney Schwartz Park, the Build Alternative would incorporate a stage construction approach, where only half of the driveway improvements would occur at a time. While half of the driveway is being modified to accommodate project improvements, the other half will remain open for recreational access.

Based on the information presented, the project's effects on the Barney Schwartz Park and the resulting impacts satisfies the criteria for a *de minimis* finding under Section 4(f).

Resources Subject to the Provisions of Section 4(f)-No Use

Almendra Court Trail

Starting at Crown Way or Union Road, the Almendra Court Trail is a 0.17-mile paved trail and is approximately 0.43 mile south of the project site. The City maintains the trail, which is accessible to the public. Thus, it is considered a Section 4(f) property under the provisions of Section 4(f).

The project would have minimal effects on the Almendra Court Trail and would not substantially impair the activities, features, and/or attributes that qualify this facility for protection under Section 4(f) based upon the evaluation conducted in this draft Initial Study and Environmental Assessment. The proposed project's facilities and construction activities would not permanently incorporate or temporarily occupy any part of the trail. Access to the trail would remain uninterrupted during project construction and operation. The

Build Alternative is not expected to include any features that would be tall enough to be visible from the trail or that would substantively alter views from the park trail due to the existing rolling topography, intervening structures, and mature trees that surround the trail. No stormwater drainage or runoff from the project site would enter the trail. The project would result in minimal short-term construction and long-term operational pollutant emissions upon adherence to standardized construction specifications and air quality measures intended to reduce equipment emissions and fugitive dust. Minimal noise effects related to short-term construction and long-term operational noise would be heard along the trail upon adherence to Caltrans' Standard Specifications. Given the lack of natural habitat and the level of human activity/disturbance on a daily basis along the trail, it is not anticipated that sensitive natural communities or species exist. Additionally, there would be no project construction within the trail, and no disturbance of any vegetation associated with the trail would occur.

The property is a Section 4(f) property, but no use would occur. Based on the Section 4(f) Policy Paper, prepared by the U.S. Department of Transportation Federal Highway Administration, Office of Planning, Environment, and Realty, Project Development and Environmental Review, Washington, District of Columbia 20590, and dated July 20, 2012, a project that is next to a Section 4(f) property, causing only minor proximity impacts to the Section 4(f) property, the provisions of Section 4(f) do not apply, and the project would result in no constructive use of the Section 4(f) property.

Section 4(f) *De Minimis* Determination(s): Section 106

Caltrans has analyzed archaeological and historic sites within the Section 106 Area of Potential Effects to determine whether they are protected Section 4(f) properties; however, because 100 percent of the Area of Potential Effects could not be surveyed, Caltrans, pursuant to Programmatic Agreement (PA) Stipulation 12, is taking a phased approach to the identification, evaluation, and application of the Criteria of Adverse Effect for this undertaking. As part of this approach, the project has included the preparation of a project-specific PA between Caltrans and the California State Historic Preservation Officer (SHPO), in addition to a Cultural Resources Management Plan. The Programmatic Agreement and Cultural Resources Management Plan provide guidance on a phased approach to ensure greater efficiency in the compliance process while enabling components of the Build Alternative to move forward. The phasing plan includes field evaluations of newly identified archaeological resources on parcels that have not previously been surveyed. Caltrans will implement a strategy of minimization and/or avoidance of direct or indirect effects on any resources that appear to meet the National Register and/or California Register criteria of eligibility. Measure Cultural Resources-1 would require that the project adhere to the requirements of the Programmatic Agreement and Cultural Resources Management Plan to minimize potential impacts to cultural resources as a result of the Build Alternative. Upon

adherence to these requirements, adverse effects to archaeological resources during construction would not occur.

Consultation and identification efforts for the proposed undertaking resulted in the identification of one Historic Property within the Area of Potential Effects. The Johnson House is an unreinforced masonry building constructed between 1888 and 1890 that has been determined eligible for listing in the National Register of Historic Places and the California Register of Historical Resources. The resource is eligible under Criterion C/3 because it embodies the distinctive characteristics of a type, period, and method of construction of a late 19th century National Folk-style residence constructed of brick, using local materials, by family and friends of the Johnson family, using the technology available at the time, and in the form and layout indicative of the style and modest means of the family for which it was constructed. Character-defining features of the resource include the unreinforced masonry brick foundation and walls, original doors, original double-hung windows, arched window and door openings, second-story awning windows, interior brick chimney, hipped roof, nearly square ground plan, and interior room layout. Noncontributing features of the resource include the plywood window replacement, slush mortar, corrugated metal roof, and wood and metal remnants of the porch. Although eligible for listing in the National Register of Historic Places and the California Register of Historic Resources, the project-related effects on it will not be adverse. The project would result in a *Finding of No Adverse Effects to Historic Properties*.

Proposed improvements near the Johnson House include the realignment of the existing Union Road. Construction activities are proposed within 25 feet of the Johnson House. While the Johnson House is outside of the area of direct impact associated with the Build Alternative, the Johnson House could be subject to temporary construction-related vibration impacts. Road removal and construction would include site preparation, trenching, grading, and paving activities. Equipment to be used would be large bulldozers, loaded trucks, small bulldozers, jackhammers, and static rollers.

The Johnson House is an approximately 130-year-old unreinforced masonry building showing signs of spalling and cracking due to water damage and past earthquakes. It is treated as a Category 4 building, which is defined as “Buildings extremely susceptible to vibration damage,” as identified by the Federal Transportation Administration. To minimize potential ground-borne vibration construction impacts to the Johnson House, Measure Cultural Resources-2 would require the preparation of a vibration monitoring plan. The vibration monitoring plan would be completed in accordance with the Caltrans Transportation and Construction Vibration Guidance Manual and would prevent the use of a vibratory roller within 35 feet of the Johnson House and instead require the use of a static roller. Additionally, Measure Cultural Resources-3 would require vibration monitoring when static rollers are used within 35 feet of the Johnson House site. Vibration monitoring would be

carried out by a qualified professional who would ensure that vibration levels do not exceed the threshold for Category 4 buildings (0.12 Peak Particle Velocity inches per second). Lastly, Measure Cultural Resources-4 would require that a preconstruction meeting is held with construction personnel to inform crews of the sensitivity of the Johnson House and provide details related to the vibration management plan.

Caltrans has notified the California State Historic Preservation Officer of its determination that one property within the Area of Potential Effects is eligible for inclusion in the National Register of Historic Places and requested concurrence in its determination of *Finding of No Adverse Effects to Historic Properties.* SHPO concurred with this finding on April 28, 2022.

De minimis impacts on historic sites are defined as the determination of either “no adverse effect” or "no historic properties affected" in compliance with Section 106 regulations, including the State Historic Preservation Officer’s written concurrence.

Caltrans fulfilled its responsibilities regarding compliance with Section 4(f) for this project consistent with 23 Code of Federal Regulations 774.5 in conjunction with the finding of ‘‘*No Adverse Effect*’’ in accordance with 36 Code of Federal Regulations part 800 and the related informing SHPO of Caltrans’ intent to make a *de minimis* impact determination based on SHPO’s concurrence with the finding of ‘‘*No Adverse Effect.*’’ As noted above, SHPO concurred with Caltrans’ Finding of No Adverse Effect on the Johnson House. Caltrans (as assigned by the Federal Highway Administration) makes the final determination on the *de minimis* finding.

Resources Not Subject to the Provisions of Section 4(f)

The Ravine Water Park

The Ravine Water Park is north of the project site at 2301 Airport Road. The water park facility includes a wave pool, winding river, water slides, and private cabana rentals. This recreational facility is privately owned, and a fee is charged for admission. Thus, the water park facility is not a Section 4(f) property, and the provisions of Section 4(f) do not apply.

Paso Robles Sports Club

The Paso Robles Sports Club is south of the project site at 2975 Union Road. The facility includes tennis courts, a pool, a fitness club, and a café and bar; it is also home to four Central Coast Women’s Tennis League teams and the North County Aquatics swim team. The Paso Robles Sports Club is privately owned by the California Athletic Clubs. Thus, the Sports Club facility is not a Section 4(f) property, and the provisions of Section 4(f) do not apply.

Vina Robles Hospitality Center and Amphitheatre

The Vina Robles Hospitality Center and Amphitheatre are approximately 0.45 mile east of the project site at 3800 Mill Road. The Hospitality Center includes a wine-tasting room and venues for private events. The Amphitheatre concert season runs from April through November. Seating includes season ticket holders, general admission, lawn seating, box suites, and Jardine tables. The Amphitheatre also provides lounge and bar facilities (Plaza Bistro and Bar, Suendero Bar, and Terrace Club), restrooms, private event facilities, and parking. The Hospitality Center and Amphitheatre are owned and operated privately by Vina Robles. Thus, the Hospitality Center and Amphitheatre are not Section 4(f) properties, and the provisions of Section 4(f) do not apply.

Appendix B Title VI Policy Statement

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS–49 | SACRAMENTO, CA 94273–0001
(916) 654-6130 | FAX (916) 653-5776 TTY 711
www.dot.ca.gov

September 2022

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures "*No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.*"

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner.

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 639-6392 or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

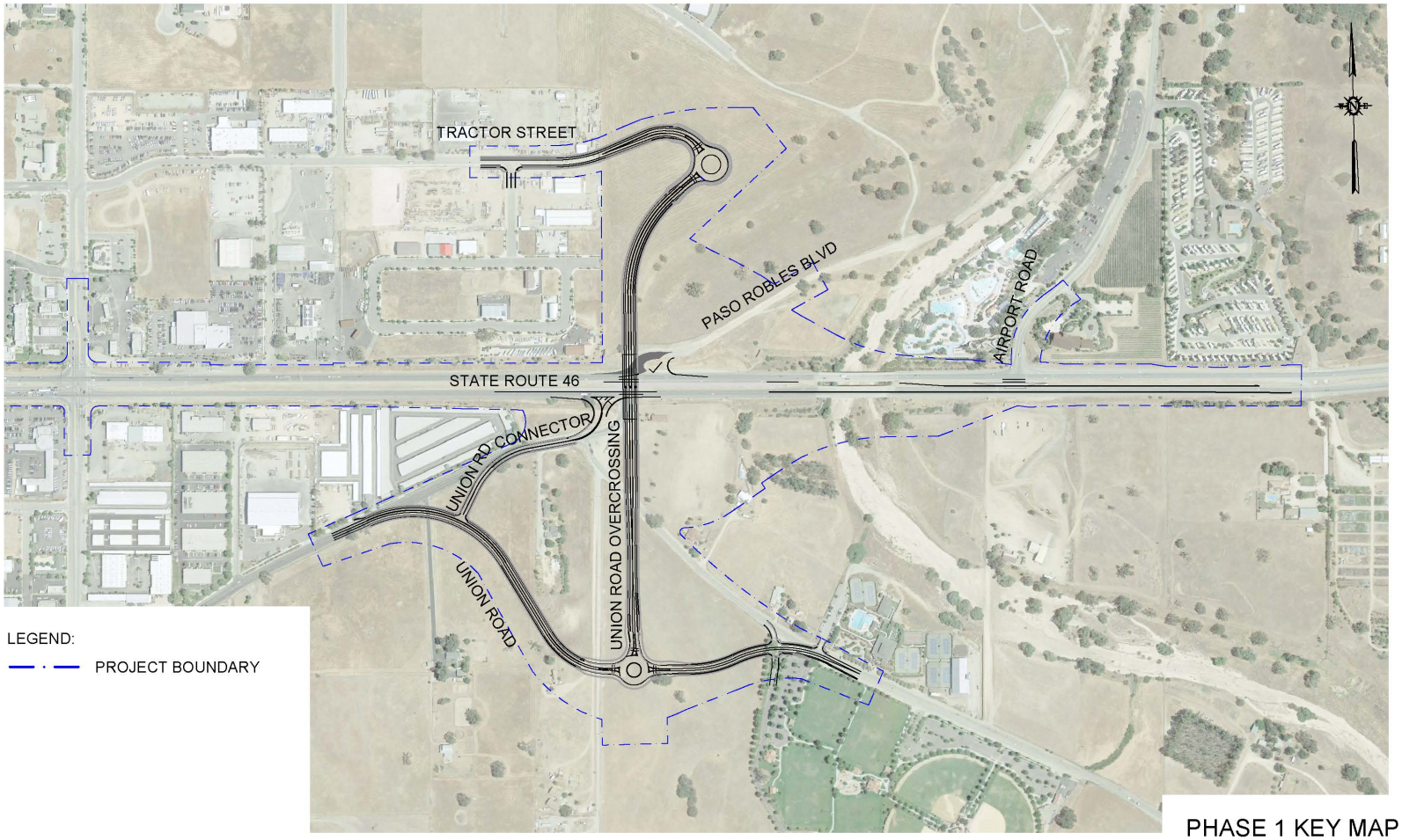
To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 879-6768 (TTY 711); or at Title.VI@dot.ca.gov.

TONY TAVARES
Director

"Provide a safe and reliable transportation network that serves all people and respects the environment"

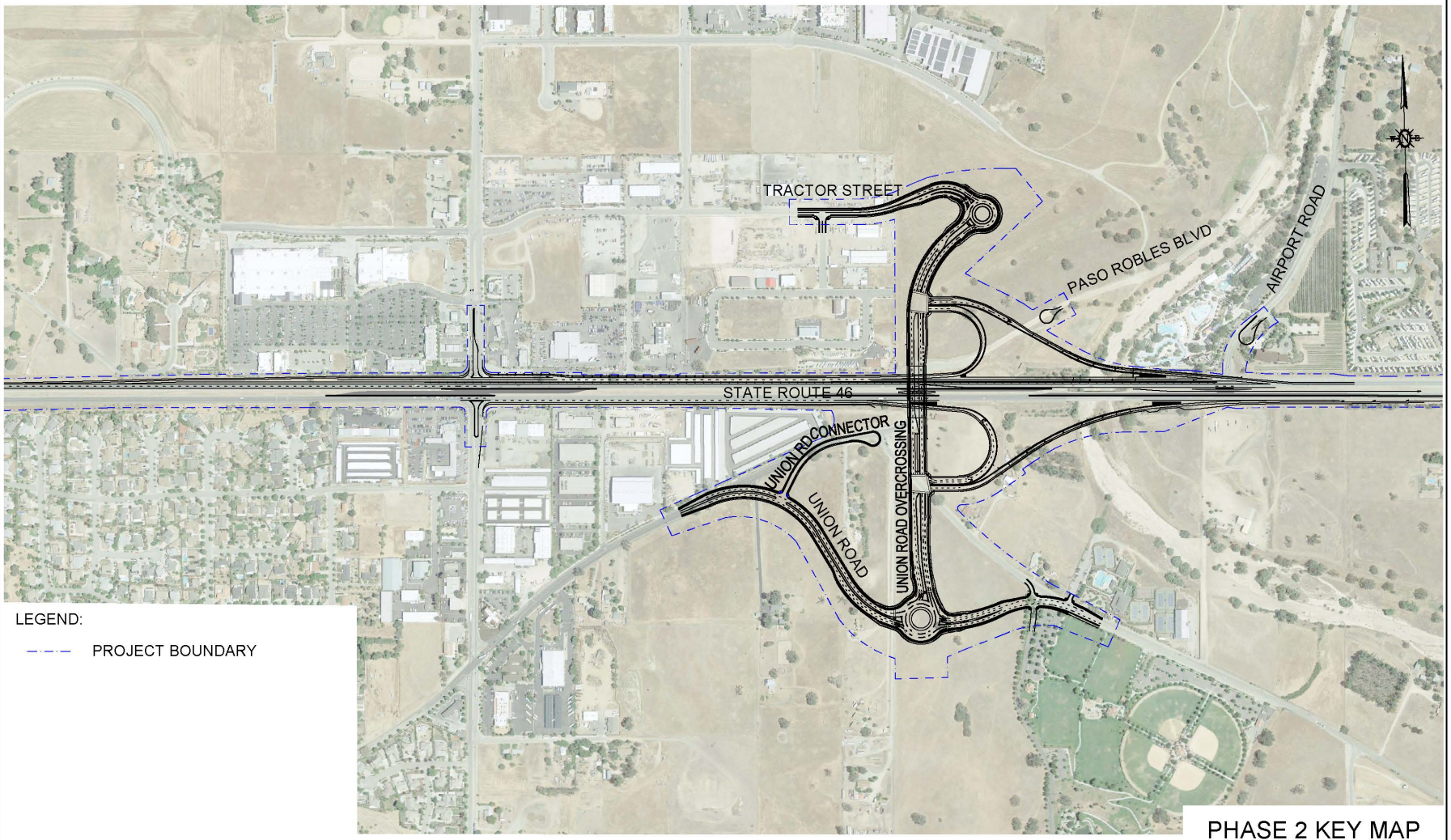
This page intentionally left blank

Appendix C Preliminary Design Layouts



PHASE 1 KEY MAP

SCALE: 1" = 400'



PHASE 2 KEY MAP

SCALE: 1" = 500'

Appendix D Summary of Relocation Benefits and Right-of-Way Acquisition

California Department of Transportation Relocation Assistance Program

RELOCATION ASSISTANCE ADVISORY SERVICES

DECLARATION OF POLICY

"The purpose of this title is to establish a uniform policy for fair and equitable treatment of persons displaced as a result of federal and federally assisted programs in order that such persons should not suffer disproportionate injuries as a result of programs designed for the benefit of the public as a whole."

The Fifth Amendment to the U.S. Constitution states, "No Person should…be deprived of life, liberty, or property, without due process of law, nor should private property be taken for public use without just compensation." The Uniform Act sets forth in statute the due process that must be followed in Real Property acquisitions involving federal funds. Supplementing the Uniform Act is the government-wide single rule for all agencies to follow, set forth in 49 Code of Federal Regulations Part 24. Displaced individuals, families, businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and financial benefits, as discussed below.

FAIR HOUSING

The Fair Housing Law (Title 8 of the Civil Rights Act of 1968) sets forth the policy of the U.S. to provide, within constitutional limitations, for fair housing. This act, and as amended, makes discriminatory practices in the purchase and rental of most residential units illegal. Whenever possible, minority persons should be given reasonable opportunities to relocate to any available housing regardless of neighborhood, as long as the replacement dwellings are decent, safe, and sanitary and are within their financial means. This policy, however, does not require the Department to provide a person with a larger payment than is necessary to enable a person to relocate to a comparable replacement dwelling.

Any persons to be displaced will be assigned to a relocation advisor, who will work closely with each displacee in order to see that all payments and benefits are fully used and that all regulations are observed, thereby avoiding the possibility of displacees jeopardizing or forfeiting any of their benefits or payments. At the time of the initiation of negotiations (usually the first written offer to purchase), owner-occupants are given a detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted soon after the initiation of negotiations and also are given a

detailed explanation of the Caltrans Relocation Assistance Program. To avoid loss of possible benefits, no individual, family, business, farm, or nonprofit organization should commit to purchase or rent a replacement property without first contacting a Department relocation advisor.

RELOCATION ASSISTANCE ADVISORY SERVICES

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, the Department will provide relocation advisory assistance to any person, business, farm, or nonprofit organization displaced as a result of the acquisition of real property for public use, so long as they are legally present in the U.S. The Department will assist eligible displacees in obtaining comparable replacement housing by providing current and continuing information on the availability and prices of both houses for sale and rental units that are “decent, safe, and sanitary.” Nonresidential displacees will receive information on comparable properties for lease or purchase (for business, farm, and nonprofit organization relocation services, see below).

Residential replacement dwellings will be in a location generally not less desirable than the displacement neighborhood at prices or rents within the financial ability of the individuals and families displaced and reasonably accessible to their places of employment. Before any displacement occurs, comparable replacement dwellings will be offered to displacees that are open to all persons regardless of race, color, religion, sex, or national origin and consistent with the requirements of Title 8 of the Civil Rights Act of 1968. This assistance will also include the supplying of information concerning federal and state-assisted housing programs and any other known services being offered by public and private agencies in the area.

Persons who are eligible for relocation payments and who are legally occupying the property required for the project will not be asked to move without first being given at least 90 days written notice. Residential occupants eligible for relocation payment(s) will not be required to move unless at least one comparable “decent, safe, and sanitary” replacement dwelling, available on the market, is offered to them by the Department.

RESIDENTIAL RELOCATION FINANCIAL BENEFITS

The Relocation Assistance Program will help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for or incidental to the purchase or rental of a replacement dwelling and actual reasonable moving expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of the 50 miles are the responsibility of the displacee. The Residential Relocation Assistance Program can be summarized as follows:

Moving Costs

Any displaced person, who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, will be eligible for reimbursement of moving costs. Displacees will receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 50 miles or a fixed payment based on a fixed moving cost schedule. Lawful occupants who move into the displacement property after the initiation of negotiations must wait until the Department obtains control of the property in order to be eligible for relocation payments.

Purchase Differential

In addition to moving and related expense payments, fully eligible homeowners may be entitled to payments for increased costs of replacement housing.

Homeowners who have owned and occupied their property for 90 days or more prior to the date of the initiation of negotiations (usually the first written offer to purchase the property) may qualify to receive a price differential payment and may qualify to receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An interest differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate.

Rent Differential

Tenants and certain owner-occupants (based on length of ownership) who have occupied the property to be acquired by the Department prior to the date of the initiation of negotiations may qualify to receive a rent differential payment. This payment is made when the Department determines that the cost to rent a comparable “decent, safe, and sanitary” replacement dwelling will be more than the present rent of the displacement dwelling. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to certain limitations noted under the Down Payment section below. To receive any relocation benefits, the displaced person must buy or rent and occupy a “decent, safe and sanitary” replacement dwelling within 1 year from the date the Department takes legal possession of the property or from the date the displacee vacates the displacement property, whichever is later.

Down Payment

The down payment option has been designed to aid owner-occupants of less than 90 days and tenants in legal occupancy prior to the Department’s

initiation of negotiations. The 1-year eligibility period in which to purchase and occupy a “decent, safe, and sanitary” replacement dwelling will apply.

Last Resort Housing

Federal regulations (49 Code of Federal Regulations 24) contain the policy and procedure for implementing the Last Resort Housing Program on Federal-aid projects. Last Resort Housing benefits are, except for the amounts of payments and the methods in making them, the same as those benefits for standard residential relocation as explained above. Last Resort Housing has been designed primarily to cover situations where a displacee cannot be relocated because of a lack of available, comparable replacement housing or when the anticipated replacement housing payments exceed the limits of the standard relocation procedure because either the displacee lacks the financial ability or other valid circumstances.

After the initiation of negotiations, the Department will, within a reasonable length of time, personally contact the displacees to gather important information, including the following:

- Number of people to be displaced.
- Specific arrangements needed to accommodate any family member(s) with special needs.
- Financial ability to relocate into a comparable replacement dwelling that will adequately house all family members.
- Preferences in area of relocation.
- Location of employment or school.

NONRESIDENTIAL RELOCATION ASSISTANCE

The Nonresidential Relocation Assistance Program provides assistance to businesses, farms, and nonprofit organizations in locating suitable replacement property and reimbursement for certain costs involved in relocation. The Relocation Advisory Assistance Program will provide current lists of properties offered for sale or rent suitable for a particular business’s specific relocation needs. The types of payments available to eligible businesses, farms, and nonprofit organizations are searching and moving expenses and possibly reestablishment expenses; or a fixed in lieu payment instead of any moving, searching, and reestablishment expenses. The payment types can be summarized as follows:

Moving Expenses

Moving expenses may include the following actual, reasonable costs:

- The moving of inventory, machinery, equipment, and similar business-related property, including dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting of personal property. Items identified as real property may not be moved under the Relocation Assistance Program. If the displacee buys an Item Pertaining to the Realty back at salvage value, the cost to move that item is borne by the displacee.
- Loss of tangible personal property provides payment for actual, direct loss of personal property that the owner is permitted not to move.
- Expenses related to searching for a new business site, up to $2,500, for reasonable expenses actually incurred.

Reestablishment Expenses

Reestablishment expenses related to the operation of the business at the new location, up to $25,000 for reasonable expenses actually incurred.

Fixed In Lieu Payment

A fixed payment in lieu of moving, searching, and reestablishment payments may be available to businesses that meet certain eligibility requirements. This payment is an amount equal to half the average annual net earnings for the last two taxable years prior to the relocation and may not be less than $1,000 or more than $40,000.

ADDITIONAL INFORMATION

Reimbursement for moving costs and replacement housing payments are not considered income for the purpose of the Internal Revenue Code of 1954 or for the purpose of determining the extent of eligibility of a displacee for assistance under the Social Security Act or any other law, except for any federal law providing local “Section 8” Housing Programs.

Any person, business, farm, or nonprofit organization that has been refused a relocation payment by the Department relocation advisor or believes that the payment(s) offered by the agency are inadequate may appeal for a special hearing of the complaint. No legal assistance is required. Information about the appeal procedure is available from the relocation advisor.

California law allows for the payment for lost goodwill that arises from the displacement of a public project. A list of ineligible expenses can be obtained from the Department’s Division of Right of Way and Land Surveys. California’s law and the federal regulations covering relocation assistance provide that no payment should be duplicated by other payments being made by the displacing agency.

Table D-1 Phase 1 of the Build Alternative-Potential Partial Temporary (Temporary Construction Easement) Right-of-Way Acquisitions

Assessor's Parcel Number	Address	Total Parcel Area	Impact Area (Square Feet)	Impact Area Percentage	Property Type/Current Land Use	Relocation
025-362-003	2930 Union Road	1,562,062	22,796	1.5 percent	Commercial Service	No
025-362-004	2940 Union Road	232,610	7,504	3.2 percent	Commercial Service	No
025-362-036	2944 Union Road	217,800	5,442	2.5 percent	Commercial Service	No
025-362-037	2948 Union Road	217,800	270	0.1 percent	Commercial Service	No
025-371-026	None	3,432,964	12,359	0.4 percent	Residential Suburban	No

Source: Mott MacDonald, Right-of-Way Requirements Map, March 2022.

Table D-2 Phase 2 of the Build Alternative-Potential Partial Temporary (Temporary Construction Easement) Right-of-Way Acquisitions

Assessor's Parcel Number	Address	Total Parcel Area	Impact Area (Square Feet)	Impact Area Percentage	Property Type/Current Land Use	Relocation
025-362-003	2930 Union Road	1,562,062	22,796	1.5 percent	Commercial Service	No
025-362-004	2940 Union Road	232,610	7,504	3.2 percent	Commercial Service	No
025-362-036	2944 Union Road	217,800	5,442	2.5 percent	Commercial Service	No
025-362-037	2948 Union Road	217,800	270	0.1 percent	Commercial Service	No
025-371-026	None	3,432,964	12,359	0.4 percent	Residential Suburban	No

Source: Mott MacDonald, Right-of-Way Requirements Map, March 2022.

Table D-3 Phase 1 of the Build Alternative-Potential Partial Permanent Right-of-Way Acquisitions

Assessor's Parcel Number	Address	Total Parcel Area	Impact Area (Square Feet)	Impact Area Percentage	Property Type/Current Land Use	Relocation
025-362-003	2930 Union Road	1,562,062	153,351	9.8 percent	Commercial Service	No
025-362-004	2940 Union Road	232,610	56,638	24.3 percent	Commercial Service	Yes
025-362-036	2944 Union Road	217,800	40,778	18.7 percent	Commercial Service	No
025-362-037	2948 Union Road	217,800	3,916	1.8 percent	Commercial Service	No
025-371-026	None	3,432,964	61,165	18.9 percent	Residential Suburban	No
025-423-010	3290 Combine Street	322,780	17,833	19.0 percent	Commercial Service	No
025-425-028	None	94,036	370,689	20.6 percent	Commercial Service	No
025-435-029	None	1,799,899	153,351	9.8 percent	Agricultural; Business Park; Commercial Service	No

Source: Mott MacDonald, Right-of-Way Requirements Map, March 2022.

Table D-4 Phase 2 of the Build Alternative-Potential Partial Permanent Right-of-Way Acquisitions

Assessor's Parcel Number	Address	Total Parcel Area	Impact Area (Square Feet)	Impact Area Percentage	Property Type/Current Land Use	Relocation
025-371-017	2961 Union Road	391,168	113,545	29.0 percent	Residential/Commercial Service	Yes
025-371-025	2975 Union Road	304,920	60,812	19.9 percent	Commercial Service	No
025-371-026	None	3,432,964	28,579	15.0 percent	Residential Suburban	No
025-371-031	2981 Union Road	1,143,450	4,218	0.4 percent	Commercial Service	No
025-433-001	None	275,734	108,460	39.3 percent	Commercial Service	No
025-433-012	2301 Airport Road	703,929	7,920	1.1 percent	Commercial Service	No
025-433-013	2300 Airport Road	359,805	12,433	3.5 percent	Commercial Service	No
025-435-029	None	1,799,899	130,061	27.8 percent	Agricultural; Business Park; Commercial Service	No
025-437-008	3507 Combine Street	28,885	107	0.4 percent	Commercial Service	No
025-437-009	3511 Combine Street	26,547	967	3.6 percent	Commercial Service	No
025-437-010	3515 Combine Street	26,457	1,679	6.3 percent	Commercial Service	No
025-437-011	3519 Combine Street	25,700	2,502	9.7 percent	Commercial Service	No
025-437-012	3523 Combine Street	25,256	3,234	12.8 percent	Commercial Service	No
025-437-013	3527 Combine Street	19,946	4,572	22.9 percent	Commercial Service	No

Source: Mott MacDonald, Right-of-Way Requirements Map, March 2022.

Appendix E Glossary of Technical Terms

abutment—the part of a structure (such as an arch or a bridge) that directly receives thrust or pressure.

aesthetics—a pleasing experience of effect (Source: Merriam-Webster); visual resources under the California Environmental Quality Act.

aggregate—any of several hard inert materials (such as sand, gravel, or slag) used for mixing with a cementing material to form concrete, mortar, or plaster (Source: Merriam-Webster).

alluvium—clay, silt, sand, gravel, or similar loose rock fragments or organic materials deposited by running water (Source: Merriam-Webster).

arterial highway—a general term denoting a highway primarily for through travel, usually on a continuous route (Source: California Department of Transportation Highway Design Manual, 7th Edition).

base—a layer of selected, processed, and/or treated aggregate material that is placed immediately below the surface course to provide additional load distribution and contribute to drainage (Source: California Department of Transportation Highway Design Manual, 7th Edition).

Best Management Practices (BMPs)—schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of Waters of the U.S. Best Management Practices also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage (Source: Clean Water Act).

Class 1 Bikeway (bike path)—are facilities with exclusive right-of-way intended only for bicycles and pedestrians, with cross flows by vehicles minimized. Motor vehicles are prohibited from bike paths per the California Vehicle Code, which can be reinforced by signage (Source: California Department of Transportation Highway Design Manual, 7th Edition).

Class 2 Bikeway (bike lane)—provides a striped facility for one-way bike travel on a street or highway (Source: California Department of Transportation Highway Design Manual, 7th Edition).

Class 3 Bikeway (bike route)—provides for shared use with pedestrian or motor vehicle traffic (Source: California Department of Transportation Highway Design Manual, 7th Edition)

cold plane—also known as milling, is the construction process that removes portions of the asphalt pavement surface to the depth needed for the

operations (Source: Federal Highway Administration "Overview of Project Selection Guidelines for Cold In-place and Cold Central Plant Pavement Recycling").

complete street—a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the facility (Source: Caltrans Deputy Directive 64-R2).

conventional highway—a highway without control of access that may or may not be divided (Source: California Department of Transportation Highway Design Manual, 7th Edition).

cul-de-sac—a street or passage closed at one end (Source: Merriam-Webster).

curb ramp—a ramp cut into a street curb to provide access (as for wheelchairs and/or strollers) between the sidewalk and a street; also referred to as curb cut (Source: Merriam-Webster).

curb return—the curved portion (radius) of a street curb at street intersections or the curved portion of a curb in the wings of a driveway approach (Sources: Federal Highway Administration; Law Insider, www.lawinsider.com/dictionary/curb-return).

easement—a right to use or control the property of another for designated purposes (Source: California Department of Transportation Highway Design Manual, 7th Edition).

effluent—waste material (such as smoke, liquid industrial refuse, or sewage) discharged into the environment, especially when serving as a pollutant (Source: Merriam-Webster).

embankment—a raised structure (as of earth or gravel) used, especially to hold back water or to carry a roadway (Source: Merriam-Webster).

encroachment permit—a form of license that provides permission to the owner to install a facility but does not convey any property rights, and it also imposes certain restrictions on the owner and contains a relocation clause that states the owner must relocate their facilities upon request at the owner's own expense (Source: California Department of Transportation Right of Way Manual, January 2021).

fossiliferous—containing preserved items from a past geologic age (Source: Merriam-Webster).

grade separation—a crossing of two highways, highway and local road, or a highway and a railroad at different levels (Source: California Department of Transportation Highway Design Manual, 7th Edition).

holocene—of, relating to, or being the present or post-Pleistocene geologic epoch (Source: Merriam-Webster).

hot mix asphalt (asphalt concrete)—a graded asphalt concrete mixture (aggregate and asphalt binder) containing a small number of voids which is used primarily as a surface course to provide the structural strength needed to distribute loads to the underlying layers of the pavement structure (Source: California Department of Transportation Highway Design Manual, 7th Edition)

hydrocarbons—an organic compound (such as acetylene or butane) containing only carbon and hydrogen and often occurring in petroleum, natural gas, coal, and bitumens (Source: Merriam-Webster).

hydrology—a science dealing with the properties, distribution, and circulation of water on and below the earth's surface and in the atmosphere (Source: Merriam-Webster).

lateral spreading—landslides that commonly form on gentle slopes and that have rapid fluid-like flow movement, like water (Source: Merriam-Webster).

Level of Service (LOS)—a system by which road engineers measure how well a road is performing based on the number of cars and the delays that vehicles experience on that roadway. Letters designate each level, from A to F. A, B, and C represent free-flowing conditions, and F is stop-and-go traffic (Source: California Department of Transportation).

liquefaction—the process by which water-saturated sediment temporarily loses strength and acts as a fluid, like when you wiggle your toes in the wet sand near the water at the beach (Source: U.S. Geological Survey Earthquake Glossary).

lithology—the character of a rock formation (Source: Merriam-Webster).

logical termini—rational end points for a transportation improvement and environmental review (Source: Federal Highway Administration).

median (numerical)—a value above and below which there are an equal number of values or a middle point in a set of numbers (Source: Merriam-Webster).

median (roadway)—the portion of a divided highway separating the traveled ways in opposite directions of lanes of traffic, excluding turn lanes (Source: California Department of Transportation Highway Design Manual, 7th Edition).

median lane—a speed change lane within the median to accommodate left-turning vehicles (Source: California Department of Transportation Highway Design Manual, 7th Edition).

megafauna—fauna consisting of individuals large enough to be visible to the naked eye (Source: Merriam-Webster).

methacrylate—an acrylic resin or plastic made from a derivative of methacrylic acid (Source: Merriam-Webster).

multimodal access—the consideration and accommodation of the many ways public transportation users get to and from a public transportation stop or center to access public transportation service, which can include walking, bicycling, riding feeder public transportation systems (for example, taking the bus to connect to commuter rail at a station), and driving (Source: U.S. Department of Transportation).

overcrossing (in other words, overpass)—a crossing of two highways or a highway and pedestrian path or railroad at different levels where clearance to traffic on the lower level is obtained by elevating the higher level (Source: Merriam-Webster).

overlay—a layer, usually hot mix asphalt, placed on existing flexible or rigid pavement to restore ride quality, increase structural strength (load carrying capacity), and extend the service life (Source: California Department of Transportation Highway Design Manual, 7th Edition)

ozone—a triatomicl, very reactive form of oxygen that is a bluish, irritating gas of pungent odor, that is a major air pollutant in the lower atmosphere but a beneficial component of the upper atmosphere, and that is used for oxidizing, bleaching, disinfecting, and deodorizing (Source: Merriam-Webster).

palliative—something that reduces intensity (Source: Merriam-Webster)

permit to enter and construct—a legal agreement that grants rights to the state to perform work for the grantor's benefit; does not provide any permanent right to the state and may be used when the state would not condemn the right (Source: California Department of Transportation Right of Way Manual, January 2021).

Pliocene—of, relating to, or being the latest epoch of the Tertiary or the corresponding series of rocks (Source: Merriam-Webster).

Pleistocene—of, relating to, or being the earlier epoch of the Quaternary or the corresponding series of rocks (Source: Merriam-Webster).

polynuclear—chemically polycyclic, especially with respect to the benzene ring—used chiefly of aromatic hydrocarbons that are important as pollutants and possibly as carcinogens (Source: Merriam-Webster).

phylogenetic—state that is based on natural evolutionary relationships (Source: Merriam-Webster).

riparian—relating to or living or located on the bank of a natural watercourse (such as a river) or sometimes of a lake or a tidewater (Source: Merriam-Webster).

roadbed—that portion of the roadway extending from curb line to curb line or shoulder line to shoulder line. Divided highways are considered to have two roadbeds (Source: California Department of Transportation Highway Design Manual, 7th Edition).

right-of-way—the legal right, established by usage or grant, to pass along a specific route through grounds or property belonging to another (Source: Oxford Language).

rubberized hot mix asphalt—a material produced for hot mix applications by mixing either asphalt rubber or asphalt rubber binder with graded aggregate (Source: California Department of Transportation Highway Design Manual, 7th Edition).

scarify—tilling or ripping of the soil across the slope using farming or construction equipment for purposes of loosening and mixing the soil profile (Source: U.S. Department of Agriculture, Natural Resources Conservation Service 2012 Fact Sheet)

sedimentary rock—plastic rock (such as conglomerate, sandstone, or shale) formed from fragments of other rock transported from its source and deposited in water (Source: Merriam-Webster).

seismic—of or relating to an earth vibration caused by something else (such as an explosion or the impact of a meteorite) (Source: Merriam-Webster).

site furniture—features such as newspaper boxes, bicycle racks, bus shelters, benches, trash receptacles, interpretive panels, and art or drinking fountains that occupy space on or alongside pedestrian sidewalks (Source: California Department of Transportation Highway Design Manual, 7th Edition).

splitter island—a raised or painted traffic island that separates traffic in opposing directions of travel and are typically used at roundabouts and on the minor road approaches to an intersection (Source: California Department of Transportation Highway Design Manual, 7th Edition).

soil expansion—soils that expand when water is added and shrink when they dry out (Source: Researchgate).

subbase—unbound aggregate or granular material that is placed on the subgrade as a foundation or working platform for the base and is intended to function primarily as structural support and for drainage (Source: California Department of Transportation Highway Design Manual, 7th Edition).

surface course—one or more uppermost layers of the pavement structure engineered to carry and distribute vehicle loads (Source: California Department of Transportation Highway Design Manual, 7th Edition).

taxonomic—the study of the general principles of scientific classification (Source: Merriam-Webster).

temporary construction easement—a property encumbrance and acquisition item as defined in 23 Code of Federal Regulations 710.105 for a specific anticipated use over a specified time period [window of when proposed construction activity(ies) may occur] (Source: California Department of Transportation Right of Way Manual, January 2021).

Total Maximum Daily Load (TMDL)—the calculation of the maximum amount of a pollutant allowed to enter a waterbody so that the waterbody will meet and continue to meet water quality standards for that particular pollutant (Source: U.S. Environmental Protection Agency).

turbidity—reduced clarity of surface water because of suspended particles, usually sediment (Source: U.S Geological Survey National Water-Quality Assessment Project Glossary).

vapor encroachment condition—the presence or likely presence of chemical of concern vapors in the subsurface of the target property caused by the release of vapors from contaminated soil and/or groundwater either on or near the target property (Source: ASTM Section E2600-15).

viaduct—a bridge for carrying a road or railroad over something (as a gorge or highway) (Source: Merriam-Webster).

watershed—a region or area bounded on the edge by a divide and draining ultimately to a particular watercourse or body of water (Source: Merriam-Webster).

Appendix F Avoidance, Minimization and/or Mitigation Measures Summary

To ensure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as shown in the proposed Environmental Commitments Record that follows) would be implemented. During project design, avoidance, minimization, and/or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in the Environmental Commitments Record are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. Because the following Environmental Commitments Record is a draft, some fields have not been completed; they will be filled out as each of the measures is implemented.

Note: Some measures may apply to more than one resource area. Duplicated or redundant measures have not been included in this Environmental Commitments Record.

Caltrans Standardized Project Measures

This project contains standardized project measures (Standard Specifications, Special Provisions, and current federal and state regulations) that are used on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. These measures are included as project features and addressed in more detail in the Environmental Consequences sections found in Chapter 2 when appropriate.

- In accordance with the Highway Design Manual, long-life pavement is a standard project feature for this project. The pavement design life for new construction and reconstruction projects shall be no less than 40 years (Highway Design Manual, Chapter 610, Section 612.2 - New Construction and Reconstruction).
- A Transportation Management Plan would be prepared during the final design phase to minimize traffic impacts during construction. The primary objective of the Transportation Management Plan is to maintain safe movement through the construction zone and minimize traffic delays during the construction period. The Transportation Management Plan would include, but not be limited to, the following six major elements:
    - Public information/public awareness campaign
    - Traveler information strategies

  - Incident management
  - Construction strategies
  - Demand management
  - Alternate route strategies
- Comply with standard provisions dealing with the discovery of unanticipated cultural materials and human remains.
- Comply with Standard Specification (Caltrans, 2022) Sections 7-1.04. 13-4.03F, 13-7.03C, 10-5,14-9.02, 18-1.03, and other standard practices according to the California Air Resources Board and San Luis Obispo County Air Pollution Control District requirements for air quality restrictions, such as reducing idling time, properly maintaining equipment, and controlling fugitive dust during the construction period.
- Construction equipment fleets would comply with Best Available Control Technology requirements.
- All engines or portable engine-driven equipment required to obtain permits would obtain either a California Air Resources Board Portable Equipment Registration or a permit from San Luis Obispo County Air Pollution Control District.
- Comply with sound control provisions as included in Standard Specification Section 14-8.02, Noise Control (Caltrans, 2022). The contractor would not be allowed to exceed 86 decibels at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. Internal combustion engines would be equipped with the manufacturer-recommended muffler. Internal combustion engines would not be operated on the job site without the appropriate muffler.
- Follow Standard Specifications Sections 13-05 and 21 (Caltrans, 2022) related to erosion control during construction. Measures include fiber rolls, temporary large sediment barriers, soil binders, rock slope protection, revegetation with erosion control seed mix, and the use of 4:1 slopes or flatter.
- Earthwork would be performed in accordance with Standard Specifications, Section 19 (Caltrans, 2022), which require standardized measures related to compacted fill, over excavation and recompaction, and retaining walls, among other requirements.
- Construction would be conducted in accordance with Special Specifications Sections 21-1 through 21-3, Erosion Control (Caltrans, 2022), requiring erosion protection and drainage control.
- Design Pollution Prevention Best Management Practices as required under the Caltrans Municipal Separate Storm Sewer Systems Permit for areas within State right-of-way that focus on reducing or eliminating runoff

and controlling sources of pollutants would be implemented as part of the project.

- Design Pollution Prevention Best Management Practices as required under the County of San Luis Obispo Stormwater Management Program Municipal Separate Storm Sewer Systems General Permit for areas outside of State right-of-way that focus on reducing or eliminating runoff and controlling sources of pollutants would be implemented as part of the project.
- Comply with the following Standard Specifications (Caltrans, 2022) regarding proper removal, handling, and disposal of the generated traffic striping waste at a permitted disposal facility:
  - Section 14-11.12, Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue,
  - Section 36-4, Residue Containing Lead from Paint and Thermoplastic, and
  - Section 84-9.03B, Remove Traffic Stripes and Pavement Markings Containing Lead.
- Follow Standard Specification Section 14-11.02, Discovery of Unanticipated Asbestos and Hazardous Substances (Caltrans, 2022), in the event unknown wastes or suspect materials are discovered during site disturbance activities that may involve hazardous waste/materials.
- During construction, solid waste would be disposed of as specified in Standard Specifications Section 14-10.01, General (Caltrans, 2022).
- During construction, dust palliatives would be used as specified in Standard Specifications Section 18-1.03A, General (Caltrans, 2022).
- All grading would use contour grading and slope rounding techniques to minimize conventional cut landform appearance as per Highway Design Manual Section 304.4.

Visual/Aesthetic

The following minimization measures would be implemented to protect visual/aesthetic resources.

- **Visual/Aesthetics-1 (CEQA Mitigation Measure):** Construction lighting types, plans, and placement would be reviewed and approved at the discretion of the project engineer in order to verify that the construction contractor implements the following Nonstandard Special Provisions during construction activities in order to minimize light and glare impacts on surrounding sensitive uses. The construction contractor would minimize project-related light and glare to the maximum extent feasible, given safety considerations. At a minimum, color-corrected halide lights would be used. Portable lights would be operated at the lowest allowable

wattage and height and would be raised to a height no greater than 20 feet. All lights would be screened and directed downward toward work activities and away from the night sky and nearby residents to the maximum extent possible. The number of nighttime lights used would be minimized to the greatest extent possible. Pedestrian-scale lighting would be used along pedestrian facilities.

- **Visual/Aesthetics-2 (CEQA Mitigation Measure):** To maintain the context of the project area (color, form, and texture), landscaping that is compatible with the existing landscape along State Route 46 in the project vicinity and surrounding area would be installed. Landscaping within the project area would include specimen-sized trees and/or shrub/ground cover mass planting and landscape treatment along the highway on-ramps and off-ramps, City streets, the central island of roundabouts, bridge structure, and walls to soften the hardscape features and reduce glare and radiant heat. Complete Street elements, including street tree planting, would be included to promote traffic calming, reduce urbanization, and enhance multimodal accessibility throughout the project site. The landscape concept, plan, and plant palette would be determined in consultation with, and approved by, the Caltrans District Landscape Architect in consultation with the City of Paso Robles during the Plans, Specifications, and Estimates phase. All vine and landscape proposed would conform with the planting policy requirements of Caltrans and the applicable goals and policies of the City of Paso Robles General Plan. The planting plan would be reviewed and approved by the Caltrans Biologist to be in accordance with executive orders 13751, Safeguarding the Nation from the Impacts of Invasive Species (2016), and 13112, Invasive Species (1999).
- **Visual/Aesthetics-3 (CEQA Mitigation Measure):** Aesthetic treatments (in other words, color treatment, textural treatment, varying materials, landscaping, et cetera) would be added to hardscape features (in other words, bridge, retaining walls, paving, roundabout splitter islands, concrete barrier, and truck aprons, et cetera) to reduce the urbanizing effect and minimize potential graffiti. Structural themes would be compatible with the existing architectural character of the surrounding area and would be determined by the Caltrans District 5 Landscape Architect in consultation with the City of Paso Robles during the Plans, Specifications, and Estimates phase of the project. All grading would use contour grading and slope rounding techniques to minimize conventional cut landform appearance as per Highway Design Manual Section 304.4. At a minimum, the grading design would round slope transitions to produce a more natural visual appearance when connecting to the original grade.

Biological Resources

Natural Communities

The following avoidance and minimization measures would be implemented to protect natural communities. Additionally, the avoidance and minimization measure identified in Section 2.3.6, Invasive Species-1, would further protect natural communities. No compensatory mitigation would be required.

- **Natural Communities-1 (CEQA Mitigation Measure):** Construction operations, stockpiling construction materials, portable equipment, vehicles, and supplies would be restricted to the designated construction staging areas, and all operations would be confined to the minimal area necessary.
- **Natural Communities-2 (CEQA Mitigation Measure):** All exposed/disturbed and temporary disturbance areas and access points left barren of vegetation as a result of construction activities would be restored to the land cover removed using locally native grass seeds and plugs or other native plant species consistent with the habitat that has been disturbed (that is, oak trees and associated forbs for temporary impacts to oak woodland). Seeded areas would be covered with broadcast straw and/or jute netted (monofilament erosion blankets are not permitted). A Restoration and Monitoring Plan for these areas would be prepared and submitted to Caltrans and the California Department of Fish and Wildlife for approval and implemented within 1 year of project completion. Success standards would be set. There would be a minimum 5-year monitoring term based upon success standards achievement.
- **Natural Communities-3 (CEQA Mitigation Measure):** Protective temporary large sediment barriers would be installed between Huer Huero Creek and the construction area limits to prevent accidental disturbance during construction and to protect water quality within the aquatic habitats during construction.
- **Natural Communities-4 (CEQA Mitigation Measure):** A Worker Environmental Awareness Program would be implemented to educate construction workers about the presence of sensitive habitats and special-status species near the project area and to instruct them on proper avoidance measures.
- **Natural Communities-5 (CEQA Mitigation Measure):** In-stream work would be planned to occur during the driest time based on the annual forecast. Information from the Creston U.S. Geological Survey downstream gauge indicates that historically, Huer Huero Creek rarely flows from June through November. Per Caltrans recommendations, the work window would be limited to June 1 through October; however, deviation from this schedule may be allowed with approval from the California Department of Fish and Wildlife and other regulatory agencies. Construction activities that require dewatering areas, activities would be timed with awareness of precipitation forecasts and likely increases in water flows and flood stages. Construction activities next to Huer Huero Creek would stop before storm events until all reasonable erosion control

measures have been implemented. Construction equipment and material would be removed from the floodplain if inundation is likely. Revegetation, restoration, and erosion control work would not be confined to this time period.

- **Natural Communities-6 (CEQA Mitigation Measure):** Before the start of construction activities within jurisdictional features, Construction Best Management Practices would be used onsite to prevent degradation to onsite and offsite Waters of the U.S. Methods would include the use of appropriate measures to intercept and capture sediment before entering jurisdictional features, as well as erosion control measures along the perimeter of all work areas to prevent the displacement of fill material. All Best Management Practices would be in place before the start of any construction activities and would remain until construction activities are completed. All erosion control methods would be maintained until all onsite soils are stabilized.

Wetlands and Other Waters

Refer to Section 2.3.1, Natural Communities, for Avoidance and Minimization Measures Natural Communities-1 through Natural Communities-7, which would reduce impacts to wetlands. The following compensatory mitigation measures would be implemented to protect wetlands and other waters.

- **Wetlands and Other Waters-1 (CEQA Mitigation Measure):** For impacts to Huer Huero Creek and associated foothill riparian land cover, compensatory mitigation at a 3-to-1 ratio may be required by the California Department of Fish and Wildlife as a part of the Section 1602 Lake and Streambed Alteration Agreement process. Onsite restoration is the preferred mitigation. This action would begin with the preparation of a restoration plan that would lead to the restoration of 576 square feet of Huer Huero Creek and 3.27 acres of associated valley foothill riparian land cover. All temporary impacts (0.14 acres of foothill riparian land cover) will be restored at a one-to-one ratio. The final plan would be agreed upon by concerned agencies before implementation. The plan would identify postconstruction native plantings with an annual monitoring schedule and performance criteria.
- **Wetlands and Other Waters-2 (CEQA Mitigation Measure):** For impacts related to the seasonal wetland, protection in perpetuity would be provided for 0.02 acre of impacts to the seasonal wetland (0.046 acre of preservation) through payment into a U.S. Army Corps of Engineers/Regional Water Quality Control Board-approved in-lieu fee program (consistent with 33 CFR Part 332) or other acceptable programs or onsite restoration, where agencies allow.

Plant Species

The following avoidance and minimization measures would be implemented to protect plant species.

- **Plant Species-1 (CEQA Mitigation Measure):** Before any vegetation removal or ground-disturbing activities, focused surveys would be conducted to determine if Dwarf calycadenia (*Calycadenia villosa*), San Luis Obispo owl's-clover (*Castilleja densiflora* subspecies *obispoensis*), Lemmon's jewelflower (*Caulanthus lemmonii*), woodland woolythreads (*Monolopia gracilens*), shining navarretia (*Navarretia nigelliformis* subspecies *radians*), and hooked popcornflower (*Plagiobothrys uncinatus*) occur within the Biological Study Area. Surveys would be conducted in accordance with California Department of Fish and Wildlife Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities. These guidelines require rare plant surveys to be conducted at the proper time of year when rare or endangered species are both "evident" and identifiable. Surveys would be scheduled to coincide with known blooming periods and/or during periods of physiological development that are necessary to identify the plant species of concern.
- **Plant Species-2 (CEQA Mitigation Measure):** If special-status plant species are identified within the Biological Study Area but outside the project footprint, then the identified plant(s) would be avoided by installing protective fencing and warning construction personnel of their presence.
- **Plant Species-3 (CEQA Mitigation Measure):** If any special-status plant species identified in Measure Plant Species-1 are identified in the Biological Study Area (Dwarf calycadenia [*Calycadenia villosa*], San Luis Obispo owl's-clover [*Castilleja densiflora* subspecies *obispoensis*], Lemmon's jewelflower [*Caulanthus lemmonii*], woodland woolythreads [*Monolopia gracilens*], shining navarretia [*Navarretia nigelliformis* subspecies *radians*], and hooked popcorn flower [*Plagiobothrys uncinatus*]), these plants would be avoided to the greatest extent possible. If impacts to special-status plant species within the Biological Study Area are unavoidable, the City of Paso Robles would contact the California Department of Fish and Wildlife at least 10 days before destruction to determine if the agency would like to salvage the special-status plant population (per the Native Plant Protection Act of 1977).

Animal Species

California Legless Lizard

The following measure would be implemented to avoid and minimize potential impacts to California legless lizards. No compensatory mitigation would be required.

- **Animal Species-1 (CEQA Mitigation Measure):** Before the start of construction, a qualified biologist would conduct a clearance survey for the California legless lizard in the Biological Study Area. The biologist would use hand search methods in the areas of disturbance where the species are expected to occur (in other words, under shrubs, vegetation, or debris). If individuals are found, work would not begin until they are removed or move naturally out of the Biological Study Area. The biologist would relocate any individuals found within the Biological Study Area to nearby suitable habitat if the specimen cannot or does not move out of the Biological Study Area on its own.

Coast Horned Lizard

The following measure would be implemented to avoid and minimize potential impacts to coast horned lizards. No compensatory mitigation would be required.

- **Animal Species-2 (CEQA Mitigation Measure):** Before the start of construction, a qualified biologist would conduct a clearance survey for the coast horned lizard in the Biological Study Area. The biologist would use hand search methods in the areas of disturbance where the species are expected to occur (in other words, under shrubs, vegetation, or debris). If individuals are found, work would not begin until they are removed or move naturally out of the Biological Study Area. The biologist would relocate any individuals found within the Biological Study Area to nearby suitable habitat if the specimen cannot or does not move out of the Biological Study Area on its own.

San Joaquin Coachwhip

The following measures would be implemented to avoid and minimize potential impacts to San Joaquin coachwhip. No compensatory mitigation would be required.

- **Animal Species-3 (CEQA Mitigation Measure):** Before the start of any construction activities, a biologist would conduct preconstruction clearance surveys for the San Joaquin coachwhip. If individuals are found, work would not begin until they are removed or move naturally out of the Biological Study Area. The biologist would relocate any individuals found within the Biological Study Area to nearby suitable habitat if the specimen cannot or does not move out of the Biological Study Area on its own.
- **Animal Species-4 (CEQA Mitigation Measure):** No monofilament plastic or mesh would be used for erosion control measures.
- **Animal Species-5 (CEQA Mitigation Measure):** A litter control program would be put in motion during all construction activities for the proposed project. Litter would be removed from the site daily.

Raptors and Other Migratory Birds

The following measures would be implemented to avoid and minimize potential impacts to raptors and other migratory birds. No compensatory mitigation would be required.

- **Animal Species-6 (CEQA Mitigation Measure):** If clearing and/or construction activities occur during the migratory bird (including raptors) nesting season (February 1 to September 30), a qualified biologist would conduct preconstruction clearance surveys to identify active nests within 14 days of the start of project construction. A qualified biologist would conduct the surveys to determine the presence or absence of active nest sites within the proposed impact area, including construction access routes and a 500-foot buffer (if feasible). If no active nests are found, no further mitigation would be required. Surveys would be repeated if construction activities are delayed or postponed for more than 30 days.
- **Animal Species-7 (CEQA Mitigation Measure):** If an active nest (excluding western burrowing owl) is located during preconstruction clearance surveys, construction activities within the buffer zone would be restricted as necessary to avoid disturbing the nest until a qualified biologist deems it inactive. Restrictions would include the establishment of exclusion zones (no ingress of personnel or equipment) at a minimum radius of 250 feet around an active raptor nest (not including a burrowing owl) and 50 feet around an active migratory bird's nest. Activities allowed within exclusion zones and the size of the exclusion zones may be adjusted through consultation with the California Department of Fish and Wildlife and the Caltrans Biologist.
- **Animal Species-8 (CEQA Mitigation Measure):** Trees containing active migratory birds' nests and/or raptor nests that must be removed because of project implementation would be removed during the nonbreeding season (October 1 to January 31).
- **Animal Species-9 (CEQA Mitigation Measure):** If a preconstruction survey is conducted and no burrowing owls are detected, no further mitigation would be required. If active burrowing owls are detected, the following methodologies outlined in the California Department of Fish and Wildlife’s (2012) Staff Report on Burrowing Owl Mitigation would occur: use of buffer zones and burrow exclusion and closure.

Bats

The following measures would be implemented to avoid and minimize potential impacts to bat species. No compensatory mitigation would be required.

- **Animal Species-10 (CEQA Mitigation Measure):** Before removing any oak trees, a qualified biologist would conduct a bat clearance survey. If bat roosts are identified, and removal is planned before the maternity season

(May to September), then bats would be flushed from trees or excluded from structures on the site.

- **Animal Species-11 (CEQA Mitigation Measure):** If a maternity colony of bats is found in the Biological Study Area and the project can be constructed without eliminating or disturbing the roosting colony (for example, if the colony roosts in a large oak tree not planned for removal), a biologist would determine what buffer zones would be used to ensure the continued success of the colony. Such buffer zones may include a construction-free barrier of 200 feet from the roost and/or the timing of the construction activities outside of the maternity roost season (after July 31 and before March 1).

American Badger

The following measure would be implemented to avoid and minimize potential impacts to American badgers. No compensatory mitigation would be required.

- **Animal Species-12 (CEQA Mitigation Measure):** A qualified biologist would conduct a preconstruction clearance survey of the Biological Study Area, as well as a 500-foot buffer, where feasible, to determine if American badger dens and/or signs of badger occupancy exist within the Biological Study Area. The survey would be completed no more than seven days before the start of vegetation removal and ground-disturbing activities. If no dens are seen, no further mitigation would be required. Dens would be monitored until the species has left the Biological Study Area (use of a trail camera is suggested). An exclusion zone would be established 100 feet from the den until the badger has dispersed. Preconstruction clearance surveys would be repeated if vegetation removal and ground-disturbing activities are delayed or postponed for more than 30 days.

Threatened and Endangered Species

San Joaquin Kit Fox

The following measures would be implemented to avoid and minimize potential impacts to San Joaquin kit fox:

- **Threatened and Endangered Species-1 (CEQA Mitigation Measure):** A qualified biologist, approved by the U.S. Fish and Wildlife Service and retained by the City of Paso Robles, would conduct transect surveys to detect potential San Joaquin kit fox dens within 15 days before any habitat modification. Walking transects would be conducted such that 100 percent visual coverage of the area of the Biological Study Area planned to be under disturbance is achieved.
- **Threatened and Endangered Species-2 (CEQA Mitigation Measure):** If potential San Joaquin kit fox dens that could be impacted by construction

are identified, the biologist would determine the occupancy status of the dens. If the biologist determines that the dens are unoccupied, they would be destroyed immediately to prevent subsequent occupation by kit foxes.

- **Threatened and Endangered Species-3 (CEQA Mitigation Measure):** Any occupied dens located within the construction area may be excavated only during the nonreproductive season (August 1 to October 31). Before excavation, the entrance to the den would be progressively plugged with loose dirt for at least five days to discourage the use of the dens while still allowing resident foxes to escape. The biologist would monitor the dens daily during this time. When there is no sign of activity at the dens, and it is deemed safe to do so by the biologist, the dens would be dug out with hand tools to a point where it is certain that no kit foxes are present. The dens would then be fully excavated, filled with dirt, and compacted to ensure that kit foxes cannot reenter the dens during the construction period.
- **Threatened and Endangered Species-4 (CEQA Mitigation Measure):** Protective exclusion zones and fencing would be established around dens that are determined to be occupied by kit foxes during the reproductive season (November 1 to July 31). Non-natal dens would be protected by a 300-foot exclusion zone, and natal/pupping dens would be protected by a 500-foot exclusion zone. Exclusion zones around the dens would not prevent access to the dens by kit foxes and would be maintained until all construction-related or operational disturbances have been terminated. Construction and other project activities would be prohibited or restricted within these exclusion zones as determined necessary by the biologist. Only essential vehicle operation on existing roads and foot traffic in the exclusion zones would be permitted. Otherwise, all construction, vehicle operation, material storage, or any other type of surface-disturbing activity would be prohibited within the exclusion zones. All fencing would be removed immediately after construction to avoid attracting subsequent attention to the dens.
- **Threatened and Endangered Species-5 (CEQA Mitigation Measure):** Project-related vehicles would observe a daytime speed limit of 20 miles per hour throughout the site in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Nighttime construction would be minimized to the extent possible. However, if it does occur, the speed limit would be reduced to 10 miles per hour. Off-road traffic outside of designated project areas would be prohibited.
- **Threatened and Endangered Species-6 (CEQA Mitigation Measure):** To prevent inadvertent entrapment of kit foxes or other animals during the construction phase, all excavated, steep-walled holes or trenches more than 2 feet deep would be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks would be

installed. Before such holes or trenches are filled, they would be thoroughly inspected for trapped animals.

- **Threatened and Endangered Species-7 (CEQA Mitigation Measure):** All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods would be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe would not be moved until the U.S. Fish and Wildlife Service has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity until the fox has escaped.
- **Threatened and Endangered Species-8 (CEQA Mitigation Measure):** All food-related trash items, such as wrappers, cans, bottles, and food scraps, would be disposed of in securely closed containers and removed at least once a week.
- **Threatened and Endangered Species-9 (CEQA Mitigation Measure):** No firearms would be allowed on the project site.
- **Threatened and Endangered Species-10 (CEQA Mitigation Measure):** No pets, such as dogs or cats, would be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.
- **Threatened and Endangered Species-11 (CEQA Mitigation Measure):** Use of rodenticides and herbicides in project areas would be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds would observe labels and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the Service. If rodent control must be conducted, zinc would be used because of a proven lower risk to the San Joaquin kit fox.
- **Threatened and Endangered Species-12 (CEQA Mitigation Measure):** A representative should be appointed by the project proponent who would be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured, or entrapped kit fox. The representative would be identified during the employee education program, and their name and telephone number would be provided to the U.S. Fish and Wildlife Service.
- **Threatened and Endangered Species-13 (CEQA Mitigation Measure):** An employee education program would be conducted for any project that has anticipated impacts to kit fox or other endangered species. The program would consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species

concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program would include the following: A description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information would be prepared for distribution to the previously referenced people and anyone else who may enter the project site.

- **Threatened and Endangered Species-14 (CEQA Mitigation Measure):** Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, et cetera, would be recontoured if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to "temporary" disturbance means any area that is disturbed during the project but after project completion would not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas would be determined on a site-specific basis in consultation with the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and revegetation experts.
- **Threatened and Endangered Species-15 (CEQA Mitigation Measure):** In the case of trapped animals, escape ramps or structures would be installed immediately to allow the animal(s) to escape, or the U.S. Fish and Wildlife Service would be contacted for guidance.

The following compensatory mitigation measure would also be implemented to mitigate impacts to San Joaquin kit fox:

- **Threatened and Endangered Species-16 (CEQA Mitigation Measure):** Habitat impacts would be mitigated by conserving 3 acres of foraging habitat to each acre impacted under one of the following methods:
    - Method 1: The City of Paso de Robles, in cooperation with Caltrans, would establish an onsite and/or offsite conservation easement of suitable size to offset impacts to San Joaquin kit fox habitat at a ratio of not less than 3 to 1 (area mitigated: area impacted) and would be located in the San Joaquin kit fox corridor area (for example, within the San Luis Obispo County San Joaquin kit fox habitat area northwest of State Route 58). Mitigation areas would contain equal or greater San Joaquin kit fox habitat value than those impacted. Compensatory mitigation areas would have a restrictive covenant prohibiting future development/disturbance and would be managed in perpetuity to encourage the persistence and enhancement of San Joaquin kit fox. Compensatory mitigation lands cannot be located on land that is currently held publicly for resource protection. The compensatory mitigation areas would be managed by a conservation lands

management entity or another qualified easement holder. The owner/applicant would provide fees sufficient to cover administrative costs incurred in the creation of the conservation easement (appraisal, documenting baseline conditions, et cetera) and funds in the form of a non-wasting endowment to cover the cost of monitoring and enforcing the terms of the conservation easement in perpetuity. Lands to be conserved and the determination of a qualified easement holder would be subject to the review and approval of the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and the City of Paso Robles.

- Method 2: If acceptable by the City of Paso Robles, Caltrans, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service, funds would be deposited into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the San Joaquin kit fox corridor area within San Luis Obispo County, which can be completed by providing funds to the Nature Conservancy pursuant to the San Luis Obispo County San Joaquin kit fox Voluntary Fee-Based Compensatory Mitigation Program. The fee would be determined based on the current (at the time of grading permit application) cost per unit per acre of mitigation.
- The City of Paso Robles would purchase credits at a California Department of Fish and Wildlife- and U.S. Fish and Wildlife Service-approved conservation bank, specifically the Palo Prieto Conservation Bank. The total fee would be determined based on the current cost per credit (at the time of grading permit application) per acre of mitigation.

Townsend's Big-Eared Bat

Refer to measures Animal Species-10 and Animal Species-11 within Section 2.3.4, which would be implemented to avoid and minimize potential impacts to Townsend's big-eared bat. No compensatory mitigation would be required.

Invasive Species

The following measure would be implemented to avoid and minimize potential impacts resulting from invasive species:

- **Invasive Species-1 (CEQA Mitigation Measure):** All construction equipment and materials would be inspected for the presence of invasive species and cleaned as necessary.

Cultural Resources

The following avoidance and minimization measures would be implemented to protect cultural resources.

- **Cultural Resources-1 (CEQA Mitigation Measure):** The project would adhere to the requirements specified in the Programmatic Agreement

between the California Department of Transportation and the California State Historic Preservation Officer Regarding the State Route 46 East/Union Road Intersection Improvements (dated September 2022) and the Cultural Resources Management Plan for the State Route 46 East/Union Road Intersection Improvements (dated August 2022).

- **Cultural Resources-2 (CEQA Mitigation Measure):** Before construction activities occur within 35 feet of the Johnson House, a vibration monitoring contractor would be retained to prepare a vibration monitoring plan according to the specifications outlined in the Caltrans Transportation and Construction Vibration Guidance Manual. The monitoring plan would be submitted to the project engineer, Caltrans project manager, and Caltrans architectural historian for review and approval. The vibration monitoring plan would include a provision that prevents using a vibratory roller within 35 feet of the Johnson House and instead requires using a static roller. Due to the potential for exceeding the threshold, a vibration monitoring plan and vibration monitoring would be required when static rollers are used within 35 feet of the Johnson House.
- **Cultural Resources-3 (CEQA Mitigation Measure):** Vibration monitoring by a qualified professional would be completed by the vibration monitoring contractor within 35 feet or less of the Johnson House. If vibration exceeds the 0.12 peak particle velocity inches per second threshold, the vibration monitor contractor would have the authority to stop construction and identify alternative ways to complete project construction within 35 feet or less of the Johnson House.
- **Cultural Resources-4 (CEQA Mitigation Measure):** Before the start of construction activities near the Johnson House, a preconstruction meeting would be conducted to inform construction crews of the sensitivity of the Johnson House and to provide details of the vibration monitoring plan, especially to those planned to operate vibratory or static rollers.

Geology, Soils, Seismicity, and Topography

Refer to Section 2.1.10, Visual/Aesthetics, for minimization measure Visual/Aesthetics-3, which would require the use of contour grading and slope rounding techniques to minimize conventional cut landform appearance as per Highway Design Manual Section 304.4. The following minimization measures would be implemented to reduce potential geologic, soil, seismic, and topographic-related hazards.

- **Geology-1:** The Huer Huero Creek Bridge would be designed with overcrossing abutments and a center bent founded on spread footings and/or driven piles. Bridge footings would be a minimum of 5 feet deep. These parameters would be subject to verification during the Plans, Specifications, and Estimates phase.
- **Geology-2:** Due to liquefaction potential, on- and off-ramp bridges would be founded on Caltrans standard 70- or 100-ton driven piles (steel pipe

piles, steel H-piles, or prestressed concrete piles). Pile caps constructed outside of the 100-year flood zone would be set at minimum depths of 5 feet below the lowest grade within 5 feet of the cap. Within the 100-year flood zone, pile caps would be set at a minimum of 5 feet below the estimated scour depth. These parameters would be subject to verification during the Plans, Specifications, and Estimates phase.

- **Geology-3:** For fill depths up to 10 feet, prior to placement of embankment fill, 3 feet of the existing subgrade would be removed, and the exposed soil surface scarified, moisture conditioned, and recompacted. For fill depths greater than 10 feet and up to 20 feet, the removal depth would be increased to 5 feet. For fill depths over 20 feet, the removal depth would be increased to 6 feet. These parameters would be subject to verification during the Plans, Specifications, and Estimates phase.
- **Geology-4:** To minimize potential soft and unstable subgrade soil conditions, chemical treatment, placement of geotextiles and/or geogrids, and removal and replacement of the soil would be considered during the Plans, Specifications, and Estimates phase.

Paleontology

The following avoidance and minimization measure would be implemented to protect paleontological resources.

- **Paleontology-1 (CEQA Mitigation Measure):** Before the start of construction, all field personnel would be briefed regarding the types of fossils that could be found in the project area and the procedures to follow if paleontological resources be encountered. The project paleontologist or his/her representative would conduct this training at the pre-grade kickoff meeting or morning tailboard meeting. Specifically, the training would describe the fossil resources that may be encountered in the project area, outline steps to follow if a fossil discovery is made, and provide contact information for the project paleontologist and onsite monitor(s). The project paleontologist would develop the training, which may be conducted concurrently with other environmental training (for example, cultural and natural resources awareness training, safety training, et cetera).

The following mitigation measures would be implemented to protect paleontological resources.

- **Paleontology-2 (CEQA Mitigation Measure):** If fossil resources are discovered during construction activities, a Paleontological Mitigation Plan that follows Caltrans guidelines and the recommendations of the Society of Vertebrate Paleontology would be implemented. The Paleontological Mitigation Plan would be prepared by a qualified professional paleontologist before the start of ground-disturbing activities and would include the following elements:

  - If a paleontological resource is discovered, the paleontological monitor and the resident engineer would divert the construction equipment around the find temporarily.
  - The paleontological find would be assessed for scientific significance and collected.
  - Part-time monitoring would be conducted for grading and excavation activities at depths greater than or equal to 3 feet below the ground surface that have the potential to disturb Pleistocene deposits or 5 feet below the ground surface that have the potential to disturb Holocene deposits.
  - Monitoring would entail the visual inspection of excavated or graded areas and trench sidewalls.
  - In areas of high sensitivity, monitoring efforts can be reduced or eliminated at the discretion of the project paleontologist.

- **Paleontology-3a (CEQA Mitigation Measure):** In the event of fossil discovery during construction, the fossils would be collected as specified in the Paleontological Mitigation Plan. After the completion of collection and fieldwork, all significant fossils collected would be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation would carefully remove excess matrices from fossil materials and stabilize and repair specimens as necessary. Following laboratory work, all fossil specimens would be identified to the lowest taxonomic level and cataloged and analyzed for curation and storage. The project paleontologist would consult the paleontology coordinator regarding a suitable repository should scientifically significant fossils be recovered. Once the repository is decided on, they would have the first right of refusal for all project fossils. Project funds to pay for costs of transporting, curating, and housing the collection would be estimated to ensure that funds are available.
- **Paleontology-3b (CEQA Mitigation Measure):** After laboratory work and museum curation, a final Paleontological Mitigation Report would be prepared to describe the results of the paleontological mitigation monitoring efforts associated with the project. The report would include a summary of the field and laboratory methods, an overview of the project area geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any), and their scientific significance and recommendations. If the monitoring efforts produce fossils, then a copy of the report would also be submitted to the repository.

Greenhouse Gas Emissions

The following measures would also be implemented in the project to reduce greenhouse gas emissions and potential climate change impacts from the project.

- **Climate Change-1:** The project would maintain equipment in proper tune and working condition. Use right sized equipment for the job.
- **Climate Change-2:** Bids would be solicited that include the use of energy and fuel-efficient fleets in accordance with current practices.
- **Climate Change-3:** The project would implement landscaping as determined during the final design in coordination with the City of Paso Robles and the Caltrans District Landscape Architect. This landscaping would help offset any potential carbon dioxide emissions increase.

Hazardous Waste and Materials

The following avoidance and minimization measures would be implemented to protect human health and the environment as they relate to the management and disposal of hazardous waste and materials.

- **Hazards-1:** Asbestos-containing materials and lead-based paint testing would be conducted at Assessor's Parcel Numbers 025-362-016, 025-371-016, and 025-371-017 before demolition/modification of structures by a certified specialist. If present, the certified specialist would monitor the disposal of the asbestos-containing building materials/lead-based paints as they are uncovered.
- **Hazards-2:** A Phase 2/Site Characterization Specialist would conduct soil sampling during the Plans, Specifications, and Estimates phase of the project on Assessor's Parcel Number 025-433-001 to determine whether soil contamination is present due to the undocumented fill material that occurs on the parcel. The Phase 2/Site Characterization Specialist would also conduct soil sampling during the Plans, Specifications, and Estimates phase of the project on Assessor's Parcel Number 025-423-010 to determine whether soil contamination is present due to hydrocarbon contamination. Sampling results would indicate soil management practices that may need to be used, including the reuse of soils onsite, disposal of soils offsite, and worker safety precautions that may be necessary during construction.

Water Quality and Stormwater Runoff

The following minimization measures would be implemented to protect water quality.

- **Water Quality-1:** The project would comply with the requirements prescribed in the Caltrans National Pollutant Discharge Elimination System Statewide Stormwater Permit (Order Number 2012-0011-DWQ, as amended by Order WQ 2014-0006-EXEC, Order WQ 2014-0077-DWQ, Order WQ 2015-0036-EXEC, and Order WQ 2017-0026-EXEC, NPDES Number CAS000003), the City of Paso Robles' requirements per its enrollment in the State Water Resources Control Board's Waste Discharge Requirements for Stormwater Discharges from Small Municipal

Separate Storm Sewer Systems (Order Number 2013-0001-DWQ), and the National Pollutant Discharge Elimination System General Permit for Stormwater Discharges of Stormwater Runoff Associated with Construction Activities (Order Number 2009-0009-DWQ, as amended by Order 2010-0014-DWQ and Order 2012-0006-DWQ), and any subsequent permit in effect at the time of construction.

- **Water Quality-2:** A Stormwater Pollution Prevention Plan would be prepared for Phase 1 and Phase 2 and would be implemented to address all construction-related activities, equipment, and materials that have the potential to impact water quality. The Stormwater Pollution Prevention Plan would identify the sources of pollutants that may affect the quality of stormwater and include construction site Best Management Practices to control pollutants, such as sediment control, catch basin inlet protection, construction materials management, and non-stormwater Best Management Practices. Additional Best Management Practices reference material is contained within the Caltrans Project Planning and Design Guide (April 2019) and Caltrans Construction Manual (2018). These include but are not limited to, temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and other non-stormwater Best Management Practices.
- **Water Quality-3:** If dewatering is required, construction site dewatering would comply with the dewatering requirements of Sections 401 and 402 permits obtained for Phases 1 and 2 at the time of construction. This permit addresses temporary dewatering operations during construction. Dewatering Best Management Practices must be used to control sediment and pollutants, and the discharges must comply with the Waste Discharge Requirements issued by the Central Coast Regional Water Quality Control Board.
- **Water Quality-4:** Design Pollution Prevention Best Management Practices would be implemented, such as preservation of existing vegetation, slope/surface protection systems (benching/terracing, slope rounding, and reducing gradients [incorporate 4 to 1 slopes or flatter]).
- **Water Quality-5:** Caltrans and City of Paso Robles approved treatment Best Management Practices would be implemented where feasible and consistent with the requirements of National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements for the State of California, Department of Transportation, Order Number 2012-0011-DWQ, NPDES Number CAS00003, the City of Paso Robles' requirements per its enrollment in the State Water Resources Control Board's Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (Order Number 2013-0001-DWQ), the Central Coast Regional Water Quality Control Board's Postconstruction Stormwater Management Requirements for Development Projects in the Central Coast Region (Resolution Number R3-2013-0032) requirements (applicable within the City of Paso Robles),

and any subsequent permits in effect at the time of construction. Caltrans treatment Best Management Practices may include but are not limited to, infiltration basins and trenches, biofiltration strips and swales, Austin filter (earthen and concrete), detention (unlined), bioretention (unlined and lined), Delaware filter, and Open Graded Friction Course. The City's Best Management Practices may include but are not limited to, source control Best Management Practices, structural controls, permanent controls, and Low Impact Development facilities (for example, bioretention facilities, Green/Complete Streets Design Elements, et cetera).

Parks and Recreational Facilities

The following minimization measure would be implemented to protect parks and recreational facilities.

- **Parks and Recreation-1:** To minimize construction impacts at the northwest driveway of Barney Schwartz Park, the Build Alternative would incorporate a stage construction approach, where only half of the driveway improvements would occur at a time. While half of the driveway is being modified to accommodate project improvements, the other half will remain open for recreational access.

Appendix G Farmland Conversion Impact Rating Form

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request	
Name of Project Union Road/SR-46 East Intersection Alig		Federal Agency Involved FHWA	
Proposed Land Use Transportation Use		County and State San Luis Obispo, California	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS	Person Completing Form:
Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☐ NO ☐	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount of Farmland As Defined in FPPA Acres: %	
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	49.1			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	116			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide Important or Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)				

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	11			
2. Perimeter In Non-urban Use	(10)	6			
3. Percent Of Site Being Farmed	(20)	0			
4. Protection Provided By State and Local Government	(20)	20			
5. Distance From Urban Built-up Area	(15)	0			
6. Distance To Urban Support Services	(15)	0			
7. Size Of Present Farm Unit Compared To Average	(10)	0			
8. Creation Of Non-farmable Farmland	(10)	10			
9. Availability Of Farm Support Services	(5)	5			
10. On-Farm Investments	(20)	2			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	5			
TOTAL SITE ASSESSMENT POINTS	160	59	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	59	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	59	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☐

Reason For Selection:

Name of Federal agency representative completing this form:	Date:

(See Instructions on reverse side) **Form AD-1006 (03-02)**

This page intentionally left blank

List of Technical Studies Bound Separately

- Air Quality Report, State Route 46 East/Union Road Intersection Improvements (October 2022)
- Combined Paleontological Identification Report and Paleontological Evaluation Report, State Route 46 East/Union Road Intersection Improvements (February 2022)
- Community Impact Assessment, State Route 46 East/Union Road Intersection Improvements (May 2023)
- Cultural Resources Management Plan for the State Route 46 East/Union Road Intersection Improvements (August 2022)
- Finding of Effect for the State Route 46 East/Union Road Intersection Improvements (November 2021)
- Historic Property Survey Report, State Route 46 East/Union Road Intersection Improvements (July 2020)
- Location Hydraulic Study, State Route 46 East/Union Road Intersection Improvements (January 2021)
- Natural Environment Study, State Route 46 East/Union Road Intersection Improvements (May 2023July 2022)
- Noise Study Report State Route 46 East/Union Road Intersection Improvements (May 2023)
- Paleontological Mitigation Plan for the State Route 46 East/Union Road Intersection Improvements (February 2022)
- Phase 1 Initial Site Assessment, State Route 46 East/Union Road Intersection Improvements (January 2022)
- Preliminary Drainage Report, State Route 46 East/Union Road Intersection Improvements (November 2020)
- Programmatic Agreement (PA) Between the California Department of Transportation and the California State Historic Preservation Officer Regarding the State Route 46 East/Union Road Intersection Improvements (September 2022)
- Structure Preliminary Geotechnical Report, State Route 46 East/Union Road Intersection Improvements (December 2018)
- Summary Floodplain Encroachment Report, State Route 46 East/Union Road Intersection Improvements (February 2022)
- Supplemental Historic Property Survey Report for the State Route 46 East/Union Road Intersection Improvements (August 2021)
- Traffic Operations Analysis Report, State Route 46 East/Union Road Intersection Improvements, City of Paso Robles (June 2019)

- Visual Impact Assessment, State Route 46 East//Union Road Intersection Improvements (May 2023)
- Water Quality Assessment Report, State Route 46 East/Union Road Intersection Improvements (January 2022)

To obtain a copy of one or more of these technical studies/reports or the Initial Study/Environmental Assessment, please send your request to:

Matt Fowler, Environmental Branch Chief
District 5 Environmental Division
California Department of Transportation
50 Higuera Street
San Luis Obispo, California 93401

Or send your request by email to: matt.c.fowler@dot.ca.gov

Or call: 805-779-0793

Please indicate the project name and project identifying code (under the project name on the cover of this document) and specify the technical report or document you would like a copy of. Provide your name and email address or U.S. postal service mailing address (street address, City, state and zip code).