**DRAFT**

# ENVIRONMENTAL IMPACT REPORT

**ELK GROVE STATION PROJECT**

**ELK GROVE, CALIFORNIA**

LSA

December 2021

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# ENVIRONMENTAL IMPACT REPORT

## ELK GROVE STATION PROJECT

## ELK GROVE, CALIFORNIA

Submitted to:

San Joaquin Regional Rail Commission
949 E. Channel Street
Stockton, California 95202

Prepared by:

LSA
1504 Eureka Road, Suite 310
Roseville, California 95661
(916) 772-7450

Project No. MKT2104

LSA

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## FIGURES



## TABLES

# LIST OF ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| AB | Assembly Bill |
| ACE | Altamont Corridor Express |
| ADA | Americans with Disabilities Act |
| APN | Assessor's Parcel Number |
| ARB | Air Resources Board |
| BMP | Best Management Practice |
| CAAQS | California Ambient Air Quality Standards |
| Cal/OSHA | California Occupational Safety and Health Administration |
| CalEEMod | California Emissions Estimator Model |
| CAP | Climate Action Plan |
| CARB | California Air Resources Board |
| CCAA | California Clean Air Act |
| CCR | California Code of Regulations |
| CDFW | California Department of Fish and Wildlife |
| CEC | California Energy Commission |
| CEQA | California Environmental Quality Act |
| $CH_4$ | Methane |
| City | City of Elk Grove |
| CNEL | Community Equivalent Noise Level |
| CNG | Compressed Natural Gas |
| CO | carbon monoxide |
| $CO_2$ | carbon dioxide |
| $CO_2e$ | carbon dioxide equivalent |
| CRHR | California Register of Historical Resources |
| dB | Decibels |
| dBA | A-weighted decibels |
| EIR | Environmental Impact Report |

| | |
|---|---|
| EPA | Environmental Protection Agency |
| FCAA | Federal Clean Air Act |
| FRA | Federal Railroad Administration |
| FTA | Federal Transit Administration |
| GHG | greenhouse gas |
| GWP | Global Warming Potential |
| HCP | Habitat Conservation Plan |
| HFCs | Hydrofluorocarbons |
| HRA | Health Risk Assessment |
| I-5 | Interstate 5 |
| ICCTA | Interstate Commerce Commission Termination Act |
| IS | Initial Study |
| kV | Kilovolt |
| $L_{dn}$ | Day-night average noise level |
| $L_{eq}$ | Equivalent continuous sound level |
| $L_{max}$ | Maximum Noise Level |
| LOS | Level of Service |
| LTS | Level of Traffic Stress |
| MEI | maximally exposed individual |
| MPO | Metropolitan planning organization |
| MTP | Metropolitan Transportation Plan |
| $N_2O$ | nitrous oxide |
| NAAQS | National Ambient Air Quality Standards |
| NACTO | National Association of City Transportation Officials |
| NCIC | North Central Information Center |
| NO2 | nitrogen dioxide |
| NOP | Notice of Preparation |
| $NO_x$ | nitrogen oxides |
| $O_3$ | ozone |

| | |
|---|---|
| OPR | Governor's Office of Planning and Research |
| OSHA | (Federal) Occupational Safety and Health Administration |
| PA | Public Address |
| Pb | lead |
| PFCs | Perfluorocarbons |
| PG&E | Pacific Gas and Electric |
| $PM_{10}$ | particulate matter with diameter 10 microns |
| $PM_{2.5}$ | particulate matter with diameter 2.5 microns |
| ppb | Parts per billion |
| ppm | Parts per million |
| PPV | Peak Particle Velocity |
| PRC | Public Resources Code |
| Project | Elk Grove Station Project |
| RCRA | Resource Conservation and Recovery Act |
| rms | root mean square |
| ROG | reactive organic gases |
| ROW | Right-of-Way |
| RPS | Renewables Portfolio Standard |
| RPT | Roadway Performance Target |
| RS | Redesignation Substitution |
| RWQCB | Regional Water Quality Control Board |
| SACOG | Sacramento Area Council of Governments |
| SacRT | Sacramento Regional Transit |
| SASD | Sacramento County Regional Sanitation District |
| SB | Senate Bill |
| SCH | State Clearinghouse |
| SCS | Sustainable Communities Strategy |
| $SF_6$ | Sulfur hexafluoride |
| SFNA | Sacramento Federal Ozone Nonattainment Area |

| | |
|---|---|
| SIP | State Implementation Plan |
| SJJPA | San Joaquin Joint Powers Authority |
| SJRRC | San Joaquin Regional Rail Commission |
| SMAQMD | Sacramento Metropolitan Air Quality Management District |
| SMUD | Sacramento Municipal Utility District |
| $SO_2$ | Sulfur dioxide |
| SR-99 | State Route 99 |
| SVAB | Sacramento Valley Air Basin |
| SWPPP | Storm Water Pollution Prevention Plan |
| TAC | toxic air contaminant |
| $\mu g/m^3$ | micrograms per cubic meter |
| UPRR | Union Pacific Railroad |
| USACE | United States Army Corps of Engineers |
| USEPA | United States Environmental Protection Agency |
| VdB | vibration velocity decibels |
| VMT | vehicle miles traveled |

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# 1.0 INTRODUCTION

The San Joaquin Regional Rail Commission (SJRRC) and San Joaquin Joint Powers Authority (SJJPA) are proposing to construct and operate a passenger rail station in the City of Elk Grove. The proposed Elk Grove Station Project (Project) includes the construction of up to a 10,000-foot-long siding track to accommodate the operational requirements Union Pacific Railroad (UPRR) needs to allow passenger service to run in this corridor, modifications to an existing surface parking lot, construction of a pedestrian overcrossing, and development of a new driveway at the parking lot entrance along Dwight Road. This Environmental Impact Report (EIR) has been prepared to evaluate the potential environmental impacts associated with the proposed Project in the City of Elk Grove (City), California. The SJRRC and SJJPA have jointly prepared this EIR and the SJRRC is the "public agency which has the principal responsibility for carrying out or approving the project" and, as such, is the "Lead Agency" for the proposed Project under the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.). CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action on the proposed Project. This EIR is intended to serve as an informational document to be considered by the Lead Agency and any Responsible Agencies during deliberations on the proposed Project. PRC Section 21069 defines a "Responsible Agency" as a public agency other than the Lead Agency that has responsibility for carrying out or approving a project. The approvals and permits associated with the proposed Project are described in **Chapter 3.0, Project Description.**

Based upon the Initial Study (see **Appendix A**) prepared for the proposed Project, SJRRC as Lead Agency, determined that the proposed Project may have a significant effect on the environment in the topics of Air Quality, Noise, and Transportation. Additionally, based on comments received during the Notice of Preparation (NOP) scoping comment period and design detail not available at the time of NOP publication, SJRRC and SJJPA have determined that the EIR also consider Aesthetics. This EIR is a "Focused EIR" that concentrates on the potentially significant impacts of the Project on the four environmental issue areas identified above. All other impact areas were determined to either have no impact or have a less than significant impact (with or without mitigation). As a result, this EIR has been prepared in accordance with CEQA and the *State CEQA Guidelines* (California Code of Regulations [CCR], Title 14, Section 15000 et seq.).

Questions regarding the preparation of this document and SJRRC review of the proposed Project should be referred to the following contact:

San Joaquin Regional Rail Commission
Attn: Dan Leavitt, Manager of Regional Initiatives
949 E. Channel Street
Stockton, California 95202
(209) 944-6266

## 1.1 INTENDED USE OF THIS EIR

This EIR evaluates the potential environmental impacts that could result from implementation of the proposed Project. As the Lead Agency, SJRRC has the principal responsibility for approving the proposed Project. In that capacity, SJRRC has decided to prepare this EIR and, after the public review process, will decide whether to certify the Final EIR.

SJRRC and any Responsible Agencies have the authority to make decisions on discretionary actions relating to development of the proposed Project. As stated previously, this EIR is intended to serve as an informational document to be considered by the SJRRC and Responsible Agencies during deliberations on the proposed Project. This EIR evaluates a reasonable worst-case scenario of potential impacts associated with the proposed Project and identifies feasible mitigation and alternatives for any identified potentially significant impacts.

This EIR will serve as a Project EIR pursuant to *State CEQA Guidelines* Section 15161. According to Section 15161 of the *State CEQA Guidelines*, a Project EIR is appropriate for specific development projects and should examine the environmental impacts that could result from all phases of the project, including planning, construction, and operation.

As the Lead Agency for the proposed Project under CEQA, SJRRC must consider the information contained in the Final EIR prior to taking any discretionary action with respect to the proposed Project. This EIR provides information to the Lead Agency and other public agencies, the general public, and decision-makers regarding the potential environmental impacts from construction and operation of the proposed Project. The purpose of the public review of this EIR is to evaluate the adequacy of the environmental analysis in terms of compliance with CEQA. *State CEQA Guidelines* Section 15151 states the following regarding standards from which adequacy is judged:

> "An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have not looked for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

PRC Section 21002.1(a) states:

> "The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided."

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the *State CEQA Guidelines* and provides the information needed to assess the environmental consequences of a proposed project. EIRs are intended to provide an objective, factually supported,

full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

## 1.2 PUBLIC REVIEW PROCESS

In compliance with CEQA and the *State CEQA Guidelines*, SJRRC has taken steps to promote opportunities for the public and other public agencies to participate in the environmental review process. SJRRC conducted the scoping process, issued an NOP, prepared an Initial Study for the proposed Project, and determined that an EIR was required to evaluate the potentially significant environmental effects of the proposed Project and related actions. Additionally, a public scoping session was conducted, as discussed below.

### 1.2.1 Notice of Preparation

On August 4, 2021, an NOP for the proposed Project was distributed by SRJJC via the State Clearinghouse (SCH). The SCH issued a project number for this EIR (SCH Number 2021080045). In accordance with *State CEQA Guidelines* Section 15082, the NOP was circulated to the agencies and individuals listed in **Appendix A** for a period of 30 days, during which time written comments were solicited pertaining to environmental issues/topics that this EIR should evaluate. The NOP was also made available for public review at the following website (under active applications) https://acerail.com/valley_rail/ during the review period. Responses to the NOP were received from the following agencies:

- Native American Heritage Commission
- Caltrans District 3
- Sacramento Regional County Sanitation District
- Pacific Gas and Electric (PG&E)
- Regional San Sacramento Area Sewer District
- Sacramento Metropolitan Air Quality Management District
- WalkSacramento
- Sacramento Municipal Utility District (SMUD)
- California Department of Fish and Wildlife (CDFW)

In addition, the following organizations and interested parties submitted written comments on the NOP:

- Larry Lew
- Joanne Tansey
- Mitch Halloran
- Theresa Gannon
- C Barajas
- Alex Sanchez
- Ross Chittenden
- Edmond Kwan
- Paul Gumbinger
- Sheilah Dupuy
- Samual Musubi
- Paul Doughty

### 1.2.2 Scoping Meeting and Areas of Controversy

SJRRC held a virtual scoping meeting (via Zoom) on August 26, 2021 at 5:30 p.m. to present the proposed Project and to solicit input from interested parties regarding environmental issues that should be addressed in this EIR. The material environmental issues and concerns raised in response to the NOP or at the scoping meeting included:

- Concerns regarding parking lot and platform light spill/glare.
- Concerns regarding diesel particulate matter.
- Concerns regarding additional pollutants generated by trains approaching and departing the station.
- Request to evaluate impacts related to construction and operational criteria pollutant emissions, greenhouse gas emissions, and toxic locomotive emissions using mitigations identified in the Sacramento Metropolitan Air Quality Management District Guide to Air Quality Assessment in Sacramento County.
- Concerns about adjacency to the Bufferlands and the South Sacramento Habitat Conservation Plan.
- Concerns that effects on special status species be considered in the EIR.
- Concerns regarding damage to nearby homes in the event of a train derailment.
- Concerns regarding vibration and noise impacts generated by the station at residential units east of the Project site.
- Safety and security concerns pertaining to criminal activity at the parking lot and station.
- Concerns about connectivity to public transit.
- Concerns that existing traffic along Laguna Boulevard and Dwight Road is heavy and that roadway capacity would be exceeded with the Project.
- Requirements pursuant to Assembly Bill (AB) 52 regarding notification, consultation, confidentiality, and mitigation measures related to potential impacts to tribal cultural resources.
- Concerns about existing utility infrastructure in the Project site and coordination with utility companies for removal or relocation.
- Recommending that the station be located off Cosumnes Boulevard.
- Locating station platform adjacent to the west track instead of between the proposed tracks.

- Incorporation of multi-modal improvements, including a pedestrian access bridge, along the general vicinity of the Laguna Boulevard right-of-way, including from Zehnder Park or behind the houses on Mykonos Way.
- Interest of passengers traveling from Stockton to Elk Grove.
- Concerns regarding potential for crime, homelessness, and uncontrolled trash collection at unattended parking lot for the proposed station.
- Questions about anticipated fares.
- Request for operating agreement with Sacramento County Regional Sanitation District (Regional San or SASD) regarding access, maintenance, repair, etc. of infrastructure within the Project area.

Please note that this is not an exhaustive list of areas of controversy, but rather key issues that were raised during the scoping process. This EIR addresses each of these areas of concern or controversy in detail in the appropriate topical sections where required by CEQA, examines project-related and cumulative environmental impacts, identifies significant adverse environmental impacts, and proposes mitigation measures and/or alternatives designed to reduce or eliminate potentially significant impacts. **Appendix A** to this EIR includes the NOP and the Initial Study prepared for the proposed Project. **Appendix B** includes copies of written comments received in response to the NOP, comments received via Zoom at the Public Scoping Meeting, as well as a comment summary.

### 1.2.3 EIR Public Review

Notification of the availability of this EIR has been distributed to numerous public agencies and other interested parties. This EIR is also available at the following locations and at the following website (https://acerail.com/valley_rail/):

- San Joaquin Regional Rail Commission Office, 949 E. Channel Street, Stockton, CA 95202
- Elk Grove Public Library, 8900 Elk Grove Blvd, Elk Grove, CA 95624
- Franklin Library, 10055 Franklin High Road, Elk Grove, CA 95757
- Elk Grove City Hall, Development Services Department, 8401 Laguna Palms Way, Elk Grove, CA 95758

All comments received from agencies and individuals on this EIR will be accepted during the public comment period, which will not be less than 45 days, in compliance with CEQA and the *State CEQA Guidelines*. All comments on this EIR should be sent to SJRRC via email at elkgrovestation@gmail.com or via mail to:

San Joaquin Regional Rail Commission
Attn: Elk Grove Station Project EIR
949 E. Channel Street
Stockton, California 95202

Following the close of the public comment period on January 18, 2022, SJRRC will prepare responses to all written comments received during the public comment period and will compile these comments and responses, together with any text changes to this EIR, into a Final EIR that includes all of the information required pursuant to *State CEQA Guidelines* Section 15132. The Final EIR will be provided to all public agencies that submitted comments on this EIR at least 10 days prior to certification of the Final EIR. The Final EIR shall consist of the EIR or a revision of the draft; comments and recommendations received on the EIR either verbatim or in summary; a list of persons, organizations, and public agencies commenting on the EIR; the response of SJRRC to significant environmental points raised in the review and consultation process and in comments submitted on the Draft EIR; and any other information added by SJRRC.

SJRRC will make findings regarding the extent and nature of the impacts as presented in the Final EIR. The Final EIR must be certified as complete by the SJRRC's Board of Directors prior to making a decision on the requested approvals for the proposed Project. Public input is encouraged at all public hearings regarding the proposed Project.

## 1.3 EIR SCOPE

As required by *State CEQA Guidelines* Section 15126.2, this EIR must identify the effects of the proposed Project that are determined to be significant. Environmental topics addressed in this EIR include: Aesthetics, Air Quality, Noise, and Transportation.

As discussed in Section 1.2 above, the scoping process for this EIR included the preparation of an Initial Study. Per *State CEQA Guidelines* Section 15063, SJRRC prepared an Initial Study to determine whether the proposed Project could have a significant effect on the environment. SJRRC determined that the proposed Project may have a significant impact on the environment and issued an NOP soliciting comments from Responsible and Trustee Agencies and other interested parties, including members of the public. In addition to identifying potentially significant impacts of the proposed Project that required additional study, the Initial Study also identified effects determined not to be significant consistent with *State CEQA Guidelines* Section 15063(c)(3)(B). Impacts that were determined to be less than significant are discussed and evaluated in the Initial Study, which is included in **Appendix A** of this EIR. The analysis determined that the proposed Project would not have the potential to cause significant impacts in the following areas: Aesthetics, Agriculture and Forestry Resources, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology, and Water Quality, Land Use and Planning, Population and Housing, Public Services, Recreation, Tribal Cultural Resources, Utilities

and Service Systems, and Wildfire. However, based on comments received during the NOP scoping process and design detail not available at the time of NOP publication, SJRRC and SJJPA have determined that the EIR also consider Aesthetics.

Topics that would not have the potential to cause significant impacts are discussed solely in the Initial Study and can be found in **Appendix A** of this EIR. SJRRC's Initial Study and Environmental Checklist Form are discussed in **Chapter 4.0** of this document, and a copy of the Initial Study and Environmental Checklist for the proposed Project is included in **Appendix A** of this EIR.

## 1.4 REPORT ORGANIZATION

This EIR contains the information and analysis required by CEQA and the *State CEQA Guidelines*, including Sections 15122-15131, and is generally organized as follows:

- **Chapter 1.0: Introduction.** Discusses the overall EIR purpose, provides a summary of the Project, describes the EIR scope, and summarizes the organization of this EIR.
- **Chapter 2.0: Executive Summary.** Provides a summary of the impacts that would result from implementation of the Project, describes mitigation measures recommended to reduce or avoid significant impacts, and describes the alternatives to the Project.
- **Chapter 3.0: Project Description.** Provides a description of the Project site, the Project objectives, the Project as proposed, and uses of this EIR.
- **Chapter 4.0: Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures.** Includes an analysis of the proposed Project's environmental impacts. This chapter is organized into the following topical sections: Aesthetics, Air Quality, Noise, and Transportation. The environmental setting discussions describe the "existing conditions" of the environment on the Project site and in the vicinity of the site as they pertain to the environmental issues that are analyzed (*State CEQA Guidelines* Section 15125).

  The impact discussions identify and focus on the potentially significant environmental effects of the proposed Project. The direct and indirect effects of the proposed Project on the environment are identified and described, giving due consideration to both the short-term and long-term effects, as necessary (*State CEQA Guidelines* Section 15126.2[a]).

  The discussions of mitigation measures identify and describe feasible measures that could minimize or lessen potentially significant impacts for each significant environmental effect identified in this EIR (*State CEQA Guidelines* Section 15126[e]). The levels of significance before and after mitigation are provided. Significant unavoidable adverse effects are identified where mitigation would not reduce the effects to less than significant levels.
- **Chapter 5.0: Other CEQA Considerations.** Contains discussions on the following topics as required by *State CEQA Guidelines* Section 15126: (1) growth-inducing impacts of the proposed Project; and (2) whether there are any significant adverse environmental impacts associated with the proposed Project for which either no mitigation or only partial mitigation is feasible.

  Chapter 5.0 also includes within the analysis a discussion of the cumulative effects of the proposed Project when considered in combination with other projects causing related impacts,

as required by *State CEQA Guidelines* Section 15130. Cumulative impacts are based on the build out of the proposed Project and the known relevant approved and proposed projects in the surrounding area.

- **Chapter 6.0: Alternatives.** In accordance with CEQA, the alternatives discussion in Chapter 6.0 describes a reasonable range of alternatives that could feasibly attain the basic objectives of the proposed Project and are capable of eliminating or substantially reducing any of the proposed Project's significant unavoidable adverse environmental effects or reducing them to a less than significant level. The No Project Alternative is analyzed.
- **Chapter 7.0: List of Preparers.** Identifies preparers of the EIR, primary contacts, references used, and the persons and organizations contacted.
- **Chapter 8.0: References.** Provides the references used in this EIR.

# 2.0 EXECUTIVE SUMMARY

## 2.1 INTRODUCTION

CEQA requires that local government agencies, before taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An EIR is a document designed to provide to the public and to local and State governmental agency decision-makers an analysis of potential environmental consequences of a project to support informed decision-making.

This EIR has been prepared by the San Joaquin Regional Rail Commission (SJRRC) to evaluate environmental impacts associated with the proposed Project; to discuss alternatives; and to propose mitigation measures that will minimize, offset, or otherwise reduce or avoid the identified potentially significant impacts.

This EIR has been prepared pursuant to the requirements of CEQA and the *State CEQA Guidelines*. SJRRC is the Lead Agency, and as such, has reviewed all submitted drafts, technical studies, and reports for consistency with applicable regulations and policies and has commissioned the preparation of this EIR to reflect its own independent judgment.

Data for this EIR were obtained from on-site field observations; discussion with affected agencies; review of adopted plans and policies; review of available studies, reports, and data; and specialized environmental assessments prepared for the Project (e.g., air quality, noise, and transportation).

The Executive Summary is intended to highlight the major areas of importance in the environmental analysis for the proposed Project as required by *State CEQA Guidelines* Section 15123. The Executive Summary includes a brief description of the proposed Project, areas of controversy known to SJRRC, including issues raised by agencies and the public, a summary of the significant unavoidable impacts of the proposed Project, and a summary of alternatives evaluated in the EIR. This Executive Summary also provides a table summarizing (1) the potential environmental impacts that would occur as a result of Project construction and operation; (2) the level of significance prior to implementation of mitigation measures; (3) regulatory compliance measures and mitigation measures that avoid or reduce the significant impacts of the proposed Project, and (4) the level of significance after mitigation measures are implemented.

## 2.2 SUMMARY OF PROJECT DESCRIPTION

The primary objectives of the Project are to expand passenger rail service to the Elk Grove community, increase passenger rail ridership; provide transit connections; alleviate traffic congestion, improve regional air quality, and reduce greenhouse gas (GHG) emissions; and to support local and regional land use development plans and policies.

The proposed station platform would be located along the existing Union Pacific Railroad (UPRR) Sacramento Subdivision, which is the rail line that extends from Marysville in the north and Stockton in the south. Access to the station platform from the adjacent surface parking lot would be provided by a pedestrian overcrossing. Access to the parking lot on the west side of the UPRR corridor would

be via a new driveway along Dwight Road. The station platform, pedestrian overcrossing, and surface parking lot would be designed in compliance with Americans with Disabilities Act (ADA) regulations and applicable federal transportation standards. The proposed station platform would be approximately 30 feet wide and 955 feet in length with the top surface of the platform 10 inches above the rail tracks. The station platform would also include passenger amenities, such as passenger shelters, benches, lighting, security cameras, signage, ticketing machines, bicycle storage facilities, landscaping, and emergency call boxes. The proposed station site would also include construction of a surface parking lot providing 227 parking spaces and 3 bus bays. Parking lot access would be via a new driveway along Dwight Road.

The Project would include a pedestrian overcrossing providing access from the surface parking lot to the passenger platform. The pedestrian overcrossing would maintain clearance for vehicles using the maintenance road to access the drainage channel and existing utilities adjacent to the UPRR corridor. The pedestrian overcrossing would be constructed out of steel, concrete, or a combination of both materials with a minimum 10-foot-high railing on both sides of the overcrossing. The top of the overcrossing may be several feet higher than the railing depending on the final architectural treatments selected for the overcrossing and station.

The Project would require the construction of up to a 10,000-foot-long siding track to accommodate the operational requirements UPRR needs to allow passenger service to run in this corridor. The proposed siding track would start just north of Big Horn Boulevard and extend just south of Elk Grove Boulevard. The Project also involves the removal and replacement of approximately 3,900 feet of existing UPRR mainline track between Laguna Boulevard and Big Horn Boulevard to accommodate construction of the station platform between the UPRR mainline track and rail siding track.

The Project would install concrete crash barriers around the base of the bridge columns next to the proposed rail tracks at both Elk Grove Boulevard and Laguna Boulevard. Existing culverts within UPRR right-of-way along the limits of the proposed rail siding would be extended, where needed, to accommodate the planned improvements. Existing drainage facilities in the surface parking lot area would be modified, where needed, to accommodate surface improvements that could include raised curb, curb and gutter, sidewalks, medians, and a new driveway connecting to Dwight Road. Existing drainage facilities along Dwight Road would be modified, where needed, to accommodate the new driveway at the entrance to the surface parking lot.

The Project would include full right-of-way acquisition of one parcel, Assessor's Parcel Number (APN) 119-1540-021, for development of the proposed surface parking lot. Partial right-of-way acquisition and easements may also be required from private right-of-way from parcels APN 119-0120-066 (proposed surface parking lot) and 119-1540-010, in which the drainage channel is located to the west of the UPRR corridor. A detailed Project Description is presented in Section 3.0 of this EIR.

## 2.3 AREAS OF CONTROVERSY

Pursuant to *State CEQA Guidelines* Section 15123, this EIR acknowledges the areas of controversy and issues to be resolved that are known to SJRRC or were raised during the scoping process. SJRRC held a virtual public scoping meeting via zoom on August 26, 2021, to present the proposed Project and to solicit input from interested parties regarding environmental issues that should be addressed in this EIR. The material environmental issues and concerns raised in response to the NOP or at the scoping meeting included:

- Aesthetics
- Air Quality
- Biology
- Hazards and Hazardous Materials
- Noise and Vibration
- Public Services
- Safety and Security
- Transportation
- Tribal Cultural Resources
- Utilities

Please note that this is not an exhaustive list of areas of controversy, but rather key issues that were raised during the scoping process. This EIR addresses each of these areas of concern or controversy, examines Project-related and cumulative environmental impacts, identifies significant adverse environmental impacts, and proposes mitigation measures and/or alternatives designed to reduce or eliminate potentially significant impacts. **Appendix A** to this EIR includes the NOP and the Initial Study prepared for the proposed Project. Copies of written comments received in response to the NOP, comments received via Zoom at the Public Scoping Meeting, and a comment summary in included in **Appendix B**.

## 2.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Section 15126.2(b) of the *State CEQA Guidelines* requires that an EIR describe significant environmental impacts that cannot be avoided, including those effects that can be mitigated but not reduced to a less than significant level. One significant unavoidable adverse impact Noise (construction) was identified in this EIR.

## 2.5 ALTERNATIVES

### 2.5.1 Alternatives Evaluated in this EIR

Public Resources Code (PRC) Section 21100 and *State CEQA Guidelines* Section 15126 require an EIR to identify and discuss a No Project Alternative and a reasonable range of alternatives to the proposed Project that would feasibly attain most of the basic objectives of the project and would avoid or substantially lessen any of the significant environmental impacts. Section 6.3.4 of this EIR identifies nine alternatives that were considered for passenger rail station locations or designs but were eliminated from further consideration. The alternatives considered in this EIR include the proposed Project and the No Project Alternative.

### 2.5.2 Identification of the Environmentally Superior Alternative

The *CEQA Guidelines* (§ 15126.6[e][2]) state that if the environmentally superior alternative is the No Project Alternative, then the EIR must also identify an environmentally superior alternative among the other alternatives. For the reasons described in this EIR, the environmentally superior alternative is not the No Project Alternative. The proposed Project would provide benefits that would not be realized under the No Project Alternative, including reduction of vehicle trips on freeways and roadways, regional air pollutants, and greenhouse gas emissions. SJRRC considered extending the construction schedule and limiting construction equipment and usage, which would reduce noise level increases and hourly/daily emission concentrations. However, this would not be feasible, because increasing the length of the construction schedule would delay the opening year of the proposed Project and extend the duration of impacts that affect UPRR in the right-of-way. Accordingly, the proposed Project is the environmentally superior alternative. Implementing the proposed Project would have adverse environmental impacts, but, overall, the Project provides the environmentally superior alternative by best meeting environmental regulatory requirements and best minimizing impacts on the natural environment and communities.

## 2.6 SUMMARY OF IMPACTS AND MITIGATION MEASURES

**Table 2.6-A: Summary of Impacts and Mitigation Measures** identifies the potential Project environmental impacts, proposed mitigation measures, and level of significance after mitigation is incorporated into the Project. Environmental topics addressed in this EIR include: Aesthetics, Air Quality, Noise, and Transportation. The environmental topics addressed in the Initial Study, for which impacts were determined less than significant and/or for which SJRRC determined no additional analysis was warranted in the EIR, are presented in **Appendix A**: Agriculture and Forestry Resources, Biological Resources, Cultural Resources, Energy, Geology, Soils and Paleontological Resources, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use Planning, Population and Housing, Public Services, Recreation, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire.

In accordance with *State CEQA Guidelines* Section 15126.4(a)(1)(D), if any mitigation measure would cause one or more significant effects in addition to those that would be caused by the proposed Project, the effects of the mitigation measure shall be discussed. The mitigation measures proposed are listed in **Table 2.6-A: Summary of Impacts and Mitigation Measures**. The regulations, requirements and policies listed in the mitigation measures have been evaluated during their respective adoptions or approval processes. No secondary effects related to the proposed mitigation measures are expected to occur.

## Table 2.6-A: Summary of Impacts and Mitigation Measures

| Environmental Impacts | Level of Significance without Mitigation | Mitigation Measures | Level of Significance with Mitigation |
|---|---|---|---|
| **AESTHETICS (Section 4.1 EIR)** | | | |
| Would the Project have a substantial effect on a scenic vista? | Less than Significant. (construction)<br>No Impact. (operation) | None. | Not Applicable. |
| Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | No Impact. | None | Not Applicable. |
| In non-urbanized areas, would the Project 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? | Potentially Significant. | **MM AES-1: Landscape station parking lot.** The station parking shall be planted with trees and groundcover to improve the visual quality and character of the site, provide shade, and reduce the urban "heat island" effect. Shrubs may also be used if space allows. Trees shall be scattered throughout the parking lot area, rather than planted all in one location. All landscaping shall be designed to ensure passenger safety (e.g., so that security cameras and safety lighting are not obscured) and shall be compliant to the landscaping standards of the City of Elk Grove Municipal Code. In addition, plant palettes shall incorporate drought-tolerant plant species and shall have a strong emphasis on California native plant species that are appropriate for a given site. An irrigation and maintenance program shall be implemented during the plant establishment period, and shall be continued, as needed, to ensure plant survival. The landscaping plan shall maximize the use of planting zones that are water efficient. SJRRC shall provide the landscape plan for the station parking lot to the City of Elk Grove for review and approval prior to construction.<br><br>**MM AES-2: Apply aesthetic treatments to the components of the station.** SJRRC shall implement an aesthetic design treatment for the elevator structures and staircases on the eastern side of the station parking lot, the pedestrian crossing, and the station platform and loading area. Aesthetic treatments shall be consistent with SJRRC's Station Design Guidelines.<br><br>**MM AES-3**: **Apply a screening design feature on the upper station pedestrian-way to screen user views of neighboring residential units.** SJRRC shall include a screening feature (i.e., etched/fogged glass, vegetated screening feature, slatted screening, etc.) on the eastern side of the structure facing the single-family residential units to the east. The screening feature shall be consistently designed with the aesthetic treatments described in Mitigation Measure AES-2. The screening feature shall be implemented in a way that station users' views of neighboring residential properties is reduced. | Less Than Significant. |
| Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | Less than Significant. | None. | Not Applicable. |
| **AGRICULTURAL RESOURCES (Section 3.2 Initial Study)** | | | |
| Would the Project 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 non-agricultural use? | No Impact. | None. | Not Applicable. |
| Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract? | Less than Significant. | None. | Not Applicable. |
| Would the Project 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. | None. | Not Applicable. |
| Would the Project result in the loss of forest land or conversion of forestland to non-forest use? | No Impact. | None. | Not Applicable. |

## Table 2.6-A: Summary of Impacts and Mitigation Measures

| Environmental Impacts | Level of Significance without Mitigation | Mitigation Measures | Level of Significance with Mitigation |
|---|---|---|---|
| Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | No Impact. | None. | Not Applicable. |
| **AIR QUALITY (Section 4.2 EIR)** | | | |
| Would the Project conflict with or obstruct implementation of the applicable air quality plan? | Less than Significant. | None. | Not Applicable. |
| Would the Project 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? | Potentially Significant. | **MM AIR-1: Application of SMAQMD Basic Construction Emission Control Practices.** Consistent with SMAQMD Basic Construction Emission Control Practices (Best Management Practices [BMPs]), the following controls shall be included as specifications for the proposed Project and implemented at the construction site:<br>• Control of fugitive dust is required by District Rule 403 and enforced by SMAQMD staff.<br>• All exposed surfaces shall be watered two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.<br>• Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways shall be covered.<br>• Wet power vacuum street sweepers shall be used to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.<br>• Vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).<br>• All roadways, driveways, sidewalks, parking lots to be paved shall be completed as soon as possible. In addition, building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.<br>• Idling time shall be minimized either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Clear signage shall be provided that posts this requirement for workers at the entrances to the site.<br>• Current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1] shall be provided. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_cert1.html.<br>• All construction equipment shall be maintained in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated. | Less than Significant. |
| Would the Project expose sensitive receptors to substantial pollutant concentrations? | Less than Significant. | None. | Not Applicable. |
| Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? (Section 3.3 Initial Study) | Less than Significant. | None. | Not Applicable. |

## Table 2.6-A: Summary of Impacts and Mitigation Measures

| Environmental Impacts | Level of Significance without Mitigation | Mitigation Measures | Level of Significance with Mitigation |
|---|---|---|---|
| **BIOLOGICAL RESOURCES (Section 3.4 Initial Study)** | | | |
| Would the Project 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 U.S. Fish and Wildlife Service? | Potentially Significant. | **MM BIO-1:** The following measures consistent with the provisions of the "Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle" dated May 2017 (2017 Framework) shall be implemented to reduce potential impacts to VELB to a less than significant level.<br>1. Environmentally Sensitive Area (ESA) fencing will be established along the limits of construction to exclude construction activities from avoided habitat. Activities that may damage or kill an elderberry shrub (e.g., trenching, paving, etc.) may need an avoidance area of at least 20 feet from the drip-line, depending on the type of activity. Trucks and other vehicles will not be allowed to park in, not shall equipment be stored in, an ESA. No storage or dumping of oil, gasoline, or other substances shall be permitted within an ESA. All ESAs will be clearly delimited with yellow caution tape or temporary fencing prior to commencement of construction activities.<br>2. Signs will be installed along the edge of the ESA and will read the following: "This area is habitat of the beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs should be clearly readable from a distance of 20 feet and must be maintained for the duration of construction.<br>3. All temporarily disturbed areas will be restored to approximate pre-construction contours revegetated, either through hydroseeding or other means, with native species.<br>4. To prevent fugitive dust from drifting into adjacent habitat, all clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, demolition activities, or other dust generating activities will be effectively controlled for fugitive dust emissions utilizing application of water or by presoaking.<br>5. Prior to the start of construction, a qualified biologist will survey for elderberry shrubs within 165 feet of the disturbance area. If the survey documents any shrubs with stem diameter greater than 1 inch that were not identified during the April 2021 survey, the Project proponent will contact the USFWS. The USFWS and the Project proponent will work to determine a way to proceed without take or the Project proponent will reinitiate consultation with the USFWS to update the Biological Opinion to obtain an Incidental Take Statement includes any additional take that may occur.<br>6. All construction personnel will attend environmental awareness training. During the environmental awareness training, construction personnel will be briefed on the status of the beetle, the need to avoid damage to the elderberry host plant, and the possible penalties for not complying with these requirements.<br>7. Herbicides will not be used within the drip-line of the shrub. Insecticides will not be used within 30 meters (98 feet) of an elderberry shrub. All chemicals will be applied using a backpack sprayer or a similar direct application method.<br>8. A qualified biologist will monitor the work area at Project appropriate intervals to assure that all avoidance and minimization measures are implemented.<br>9. Pursuant to the 2017 Framework, permanent impacts to suitable habitat shall be replaced at a 2:1 ratio. Additionally, elderberry shrubs that will be removed shall be transplanted, if | Less than Significant. |

## Table 2.6-A: Summary of Impacts and Mitigation Measures

| Environmental Impacts | Level of Significance without Mitigation | Mitigation Measures | Level of Significance with Mitigation |
|---|---|---|---|
| | | feasible to a USFWS-approved location. One shrub (one credit) totals 0.041 acre. The total amount of credits required will be determined by the Project design.<br><br>**MM BIO-2:** The following measures shall be implemented to reduce potential impacts to western burrowing owls to a less than significant level.<br><br>1. Preconstruction surveys for western burrowing owls shall be conducted by a qualified biologist in accordance with the California Department of Fish and Wildlife (CDFW) 2012 Staff Report on Burrowing Owl Mitigation.<br><br>2. If burrowing owls are identified during the preconstruction survey, passive exclusion shall be implemented per CDFW's 2012 Staff Report on Burrowing Owl Mitigation (including avoidance of occupied burrows during the breeding season).<br><br>3. Following construction, all areas temporarily impacted during Project construction shall be restored to pre-construction contours (if necessary) and revegetated with native species.<br><br>**MM BIO-3:** The following measures shall be implemented to reduce potential impacts to Swainson's hawks to a less than significant level.<br><br>1. If construction begins during the nesting season (February 1 through August 31), an early season preconstruction survey for nesting Swainson's hawks shall be conducted between January and March in the project site and immediate vicinity (an approximately 0.25 mi radius) by a qualified biologist when tree foliage is relatively sparse, and nests are easy to identify. A second preconstruction survey for nesting Swainson's hawks shall be conducted in the project site and immediate vicinity (an approximately 0.25-mile radius) by a qualified biologist no more than 14 days prior to initiation of earthmoving activities.<br><br>2. If nesting Swainson's hawks are found within the survey area, a qualified biologist shall evaluate the potential for the Project to disturb nesting activities. CDFW shall be contacted to review the evaluation and determine if the Project can proceed without adversely affecting nesting activities. CDFW shall also be consulted to establish protection measures such as buffers.<br><br>3. Disturbance of active nests shall be avoided until it is determined by a qualified biologist that nesting is complete and the young have fledged, or that the nest has failed. If work is allowed to proceed, at a minimum, a qualified biologist shall be on-site during the start of construction activities during the nesting season to monitor nesting activity. The monitor shall have the authority to stop work if it is determined the Project is adversely affecting nesting activities.<br><br>4. Following construction, all fill slopes, temporary impact and/or otherwise disturbed areas shall be restored to preconstruction contours (if necessary) and revegetated with a native seed mix.<br><br>**MM BIO-4:** The following measures shall be implemented to reduce potential impacts to other nesting birds to a less than significant level.<br><br>1. If work must begin during the nesting season (February 1 to August 31), a qualified biologist shall survey all suitable nesting habitat in the Project area for presence of nesting birds. This survey shall occur no more than 10 days prior to the start of construction. | |

## Table 2.6-A: Summary of Impacts and Mitigation Measures

| Environmental Impacts | Level of Significance without Mitigation | Mitigation Measures | Level of Significance with Mitigation |
|---|---|---|---|
| | | 2. If no nesting activity is observed work may proceed as planned. If an active nest is discovered, a qualified biologist shall evaluate the potential for the proposed Project to disturb nesting activities. The evaluation criteria shall include, but are not limited to, the location/orientation of the nest in the nest tree, the distance of the nest from the Project site, the line of sight between the nest and the Project site, and the feasibility of establishing no-disturbance buffers.<br>3. Additionally, the CDFW shall be contacted to review the evaluation and determine if the Project can proceed without adversely affecting nesting activities.<br>4. If work is allowed to proceed, a qualified biologist shall be on-site weekly during construction activities to monitor nesting activity. The biologist shall have the authority to stop work if it is determined the Project is adversely affecting nesting activities. | |
| Would the Project 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 Game or U.S. Fish and Wildlife Service? | Potentially Significant. | **MM BIO-5:** The following measures shall be implemented to reduce potential impacts to riverine wetlands to a less than significant level.<br>1. A formal jurisdictional waters delineation in accordance with the USACE Routine Approach for small areas (i.e., equal to or less than 5 acres) shall be conducted. The survey will include collection of data on soils, hydrology, and vegetation, where necessary, to determine the extent of potential waters of the U.S. in the Project area. In addition, the delineation shall be conducted in accordance with the USACE Arid West Regional Supplement to the Wetland Delineation Manual (September 2008).<br>2. If the Project would result in the loss of wetlands and/or non-wetland waters, mitigation shall be accomplished by purchasing credits at an approved mitigation bank, payment of in-lieu fees, or a combination of these methods. Mitigation ratios shall be at least 1:1.<br>3. The Project proponent shall obtain a necessary regulatory permits prior to the commencement of ground disturbing activities. | Less than Significant. |
| Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | Potentially Significant. | Implementation of **Mitigation Measure BIO-5.** | Less Than Significant. |
| Would the Project 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? | No Impact. | None. | Not Applicable. |
| Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | Less than Significant. | None. | Not Applicable |
| Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | No Impact. | None | Not Applicable. |
| **CULTURAL RESOURCES (Section 3.5 Initial Study)** | | | |
| Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? | Less than Significant. | None. | Not Applicable. |
| Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | Potentially Significant. | **MM CUL-1: Worker Cultural Resources Training.** Prior to any construction activities, including demolition and grading, the Project developer shall have a qualified archaeologist implement cultural resources sensitivity training to all construction personnel and supervisors who will have the potential to encounter and alter cultural resources. The training shall describe, at a minimum: | Less than Significant. |

## Table 2.6-A: Summary of Impacts and Mitigation Measures

| Environmental Impacts | Level of Significance without Mitigation | Mitigation Measures | Level of Significance with Mitigation |
|---|---|---|---|
| | | • Types of cultural resources that may be expected in the Project area.<br>• Types of evidence that indicate the presence of cultural resources (e.g., midden soils, ash, charcoal, chipped or groundstone materials, projectile points, trash scatters or concentrations, privies, structural remains such as foundation footings and walls, bottle and ceramic fragments, or gravestones);<br>• What to do, and who to contact, if cultural resources are encountered;<br>• What to do if bones, especially human remains, are encountered; and,<br>• What the legalities are of removing or intentionally disturbing cultural resources or human remains.<br>**MM CUL-2: Native American Monitoring.** Prior to completion of the final project design and construction, SJRRC shall continue consultation with the previously identified Tribes to discuss areas that may need further field review by tribal members due to concern that may require a tribal monitor present during ground disturbing activities of archaeologically and culturally sensitive areas. In the event that a resource is discovered, the archaeologist shall evaluate it to determine its eligibility for the California Register of Historical Resources (CRHR). If it is a historic resource, unique archaeological resource, or tribal cultural resource as defined by CEQA, SJRRC shall consult with the project archaeologist and tribal members regarding methods to ensure that no substantial adverse change would occur to the significance of the resource, either by, but not limited to, avoidance or through archaeological and tribal monitoring.<br>**MM CUL-3: Inadvertent Archaeological Discovery.** Although it is not anticipated, ground-disturbing activities could result in discovery of damage of as-yet undiscovered archaeological resources as defined in Section 15064.5. If prehistoric or historic-era cultural materials are encountered during project site preparation or construction activities, all ground disturbing activities in the area of the discovery shall be halted until a qualified archaeologist is and Tribal Representative from consulting Native American Tribes are contacted and can assess the discovery. If the archaeologist and Tribal Representative from consulting Native American Tribes determines that the find does not meet CRHR standards of significance for cultural resources or tribal cultural resources, work activities may proceed.<br>If the discovery is determined to be potentially significant, the archaeologist, in consultation with SJRRC and the appropriate Native American representative, shall determine if preservation win place is feasible. If avoidance is not feasible, Project impacts shall be mitigated in accordance with *CEQA Guidelines* Section 15126.4(b)(3)(c), which requires implementation of a data recovery plan. The data recovery plan shall include provisions for adequately recovering all scientifically consequential information from and about any discovered archaeological materials, and include recommendations for the treatment of these resources.<br>In-place preservation of the archaeological or cultural resources is the preferred manner of mitigating potential impacts, because it maintains the relationship between the resource and the archaeological context and maintains tribal cultural values and integrity. In-place preservation also reduces the potential for conflicts with the religious or cultural values of groups associated with the resource. Other mitigation options include, but are not limited to, the full or partial removal and curation of the resource. No matter the approach, the resource must be recorded following accepted professional standards on DPR 523 Series forms, and the | |

## Table 2.6-A: Summary of Impacts and Mitigation Measures

| Environmental Impacts | Level of Significance without Mitigation | Mitigation Measures | Level of Significance with Mitigation |
|---|---|---|---|
| | | information submitted to the appropriate California Historical Resources Information System (CHRIS) office (NCIC), along with associated reports. | |
| Would the Project disturb any human remains, including those interred outside of formal cemeteries? | Potentially Significant. | **MM CUL-4: Discovery of Previously Unknown Human Remains.** If human remains are discovered during any construction activities, all work within 100 feet of the remains should be redirected, and the County Coroner notified immediately. At the same time, an archaeologist shall be contacted to assess the situation. If it is determined that the human remains are of Native American origin, the Coroner must notify the NAHC within 24 hours of this identification. The NAHC will identify a Most Likely Descendant to provide recommendations for the proper treatment of the remains and any associated grave goods. The archaeologist may recover scientifically valuable information, as appropriate and in coordination with the Most Likely Descendant. On completion of the archaeologist's assessment, a report should be prepared documenting methods and results, as well as recommendations regarding the treatment of the human remains and any associated archaeological materials. The report should be submitted to the SJRRC and the appropriate Information Center under CHRIS. | Less than Significant. |
| **ENERGY (Section 3.6 Initial Study)** | | | |
| Would the Project result in potentially significant environmental impact due to wasteful, inefficient or unnecessary consumption of energy resources, during project construction or operation? | Less than Significant. | None. | Not Applicable. |
| Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | Less than Significant. | None. | Not Applicable. |
| **GEOLOGY AND SOILS (Section 3.7 Initial Study)** | | | |
| Would the Project 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 of based on other substantial evidence of a known fault? | No Impact. | None. | Not Applicable. |
| Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: (ii) Strong seismic ground shaking? | Less than Significant. | None. | Not Applicable. |
| Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: (iii) Seismic-related ground failure, including liquefaction? | No Impact. | None. | Not Applicable. |
| Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: (iv) Landslides? | No Impact. | None. | Not Applicable. |
| Would the Project result in substantial soil erosion or the loss of topsoil? | Potentially Significant. | **MM GEO-1: Implement Best Management Practices to reduce soil erosion.** Soil erosion caused by construction shall be reduce by the following best management practices (BMPs) as part of National Pollutant Discharge Elimination System (NPDES) and Storm Water Pollution Prevention Plan requirements that will be included in construction permits. The construction contractor shall implement BMPs, which would include but not be limited to the use of gravel bags, straw rolls, and geotextiles to prevent erosion caused by water runoff. Additionally, the construction contractor shall implement dust control measures, such as misted water, silt fences, and polymer additives, to control loss of topsoil caused by wind. Furthermore, the construction contractor shall implement standard measures required as part of the NPDES program to minimize water quality degradation, including erosion and subsequent sediment transport, during construction activities. | Less Than Significant. |
| Would the Project be located on a geologic unit or soils that is unstable or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | No Impact. | None. | Not Applicable. |

## Table 2.6-A: Summary of Impacts and Mitigation Measures

| Environmental Impacts | Level of Significance without Mitigation | Mitigation Measures | Level of Significance with Mitigation |
|---|---|---|---|
| Would the Project be located in 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. | None. | Not Applicable. |
| Would the Project 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. | None. | Not Applicable. |
| Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | Potentially Significant. | **MM GEO-2: Conduct construction personnel education and implement periodic monitoring; stop work if paleontological resources are discovered; assess the significance of the find, and prepare and implement a recovery plan, as required.** Before the start of any earthmoving activities, SJRRC shall retain a qualified paleontologist to train all construction personnel involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils; the appearance and types of fossils that are likely to be seen during construction; and proper notification procedures should fossils be encountered. Procedures to be conveyed to workers include halting construction within 50 feet of any potential fossil find and notifying SJRRC.<br><br>The qualified paleontologist shall also make periodic visits during earthmoving activities in high-sensitivity sites to verify that workers are following the established procedures.<br><br>If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease all work within 50 feet of the find and notify SJRRC. SJRRC shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan, in accordance with SVP guidelines. The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by SJRRC, as the CEQA lead agency, to be necessary and feasible shall be implemented before construction activities can resume at\ the site where the paleontological resources were discovered. SJRRC shall be responsible for ensuring that the monitor's recommendations regarding treatment and reporting are implemented. | Less Than Significant. |
| **GREENHOUSE GAS EMISSIONS (Section 3.8 Initial Study)** | | | |
| Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | Potentially Significant. | **MM GHG-1: Implement construction emission reductions to minimize construction-related GHG emissions.** The SJRRC shall implement construction GHG emission reduction measures, including the following as feasible. These are consistent with emission reduction measures identified in the SMAQMD Guidance for Construction GHG Emission Reductions. Improve fuel efficiency from construction equipment:<br><br>• Minimize idling time either by shutting equipment off when not in use, or reducing the time of idling to no more than 3 minutes (a 5-minute limit is required by the State airborne toxics control measure [Title 13, Section 2449 (d)(3) and 2485 of the CCR]). Provide clear signage that posts this requirement for workers at the entrance to the site.<br><br>• Maintain all construction equipment in proper working condition according to manufacturers' specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.<br><br>• Train equipment operators in proper use of equipment.<br><br>• Use the proper size of equipment for the job.<br><br>• Use equipment with new technologies (repowered engines, electric drive trains). | Less Than Significant. |

## Table 2.6-A: Summary of Impacts and Mitigation Measures

| Environmental Impacts | Level of Significance without Mitigation | Mitigation Measures | Level of Significance with Mitigation |
|---|---|---|---|
| | | • Perform on-site material hauling with trucks equipped with on-road engines (if determined to be less emissive than off-road engines).<br>• Use alternative fuels for generators such as propane or solar, or use electrical power.<br>• Use a CARB low-carbon fuel for construction equipment.<br>• Encourage and provide carpools, shuttle bans, transit passes, and/or secure bicycle parking for construction worker commutes.<br>• Recycle or salvage non-hazardous construction and demolition debris, with a goal of at least 75 percent by weight.<br>• Use locally sourced or recycled construction materials; use wood products certified through a sustainable forestry program.<br>• Minimize the amount of concrete of paved surfaces, or use a low-carbon concrete option. | |
| Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | Less Than Significant. | None. | Not Applicable. |
| **HAZARDOUS MATERIALS AND WASTES (Section 3.9 Initial Study)** | | | |
| Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | Less than Significant. | None. | Not Applicable. |
| Would the Project 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. | None. | Not Applicable. |
| Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing proposed school? | No Impact. | None. | Not Applicable. |
| Would the Project 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. | None. | Not Applicable. |
| For a Project located within an airport land use plan, or where such a plan has not been adopted, within two 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? | No Impact. | None. | Not Applicable. |
| Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | Less than Significant. | None. | Not Applicable. |
| Would the Project expose people or structures, either directly or indirectly, to a significant risk or loss, injury or death involving wildland fires? | Less than Significant. | None. | Not Applicable. |
| **HYDROLOGY AND WATER QUALITY (Section 3.10 Initial Study)** | | | |
| Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? | Less than Significant. | None. | Not Applicable. |
| Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | Potentially Significant. | **MM HYD-1: Avoid water quality impacts from groundwater or dewatering.** Groundwater and dewatering effluent generated by temporary construction dewatering activities shall be contained by the construction contractor(s) in an appropriately sized storage tank and tested to determine whether the effluent is contaminated prior to discharging. Testing and discharging of the effluent shall be performed in accordance with the Construction General Permit, Permit for Construction Dewatering Activity (Order No. R5 2016-0079-01), RMP, and applicable resource agency permit requirements, including treating the effluent prior to discharge, if necessary. | Less Than Significant. |

## Table 2.6-A: Summary of Impacts and Mitigation Measures

| Environmental Impacts | Level of Significance without Mitigation | Mitigation Measures | Level of Significance with Mitigation |
|---|---|---|---|
| | | If groundwater or dewatering effluent would be discharged to storm drainage systems (e.g., storm drains, conveyance pipes, canals, ditches, creeks, and rivers) in accordance with permit requirements, the discharge flow rates shall be limited to ensure that the capacity of storm drainage systems would not be exceeded by the discharge. The construction contractor(s) shall determine the capacity of storm drainage systems that would receive discharges by coordinating with the City of Elk Grove. The capacity of the storm drainage systems shall be determined for various times of year and various storm events. If the capacity of the storm drainage systems cannot be determined through coordination with the City of Elk Grove, evaluations of the capacity of the storm drainage systems that would receive discharges shall be performed and certified by a professional engineer. The discharge flow rates shall not exceed the capacity determined for various times of year and various storm events, as required by the City of Elk Grove.<br><br>If the effluent is not suitable for discharge to storm drains or directly to receiving waters, as discussed above, the effluent shall be discharged to sanitary sewer systems or transported for disposal at an appropriate offsite treatment or disposal facility. If the effluent would be discharged to a sanitary sewer, the appropriate permit shall be obtained from the local utility agency with jurisdiction over discharges to the sanitary sewer system, and permit criteria for discharging to the sewer shall be followed. These criteria include testing the effluent, the application of treatment technologies that would result in achieving compliance with the wastewater discharge limits and discharging at or below the maximum allowable flow rate. | |
| Would the Project substantially alter the existing drainage patter of the sire 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 on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or, (iv) impede or redirect flood flows? | Less than Significant. | None. | Not Applicable. |
| Would the Project be in a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | No Impact. | None. | Not Applicable |
| Would the Project conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan? | Less than Significant. | None. | Not Applicable. |
| **LAND USE AND PLANNING (Section 3.11 Initial Study)** | | | |
| Would the Project physically divide an established community? | Less than Significant. | None. | Not Applicable. |
| Would the Project 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? | Less than Significant. | None. | Not Applicable. |
| **MINERAL RESOURCES (Section 3.12 Initial Study)** | | | |
| Would the Project 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. | None. | Not Applicable. |
| Would the Project 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. | None. | Not Applicable. |
| **NOISE (Section 4.3 EIR)** | | | |
| Would the Project result in 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? | Potentially Significant. | **MM NOI-1: Implement a Construction Noise Control Plan.** A noise control plan, provided by the construction contractor of the SJRRC, shall incorporate, at a minimum, the following best | Significant and Unavoidable, (construction) |

## Table 2.6-A: Summary of Impacts and Mitigation Measures

| Environmental Impacts | Level of Significance without Mitigation | Mitigation Measures | Level of Significance with Mitigation |
|---|---|---|---|
| | | practices into the construction scope of work and specifications to reduce the impact of temporary construction-related noise on nearby noise-sensitive receptors to be implemented:<br>• Install temporary construction site sound barriers near noise sources.<br>• Use moveable sound barriers at the source of the construction activity.<br>• Avoid the use of impact pile-drivers where possible near noise-sensitive areas, or use quieter alternatives (e.g., drilled piles) where geological conditions permit.<br>• Locate stationary construction equipment as far as possible from noise-sensitive sites.<br>• Re-route construction-related truck traffic along roadways that will cause the least disturbance to residents.<br>• Use low-noise-emission equipment.<br>• Implement noise-deadening measures for truck loading and operations.<br>• Line or cover storage bins, conveyors, and chutes with sound-deadening material.<br>• Use acoustic enclosures, shields, or shrouds for equipment and facilities.<br>• Use high-grade engine exhaust silencers and engine-casing sound insulation.<br>• Minimize the use of generators to power equipment.<br>• Limit use of public address systems.<br>• Grade surface irregularities on construction sites.<br>• Monitor and maintain equipment to meet noise limits.<br>• Establish an active community liaison program to keep residents informed.<br>**MM NOI-2: Final Noise Analysis During Final Design.** Prior to construction of the proposed station, the construction contractor of the SJRRC shall provide a detailed analysis of potential noise level impacts associated with the station operations at residential receivers to the east and, if needed, recommend noise reduction measures to ensure fixed noise sources do not exceed the City of Elk Grove noise criteria. One potential noise reduction measure would be to ensure that the volume of the future PA system would be set so as not exceed the local criteria or cause a noticeable noise increase, whichever is lower. | Less Than Significant. (operation) |
| Would the Project result in the generation of excessive ground-borne vibration or ground-borne noise levels? | Potentially Significant. | **MM NOI-3: Implement a construction vibration control plan.**<br>Prior to construction of the proposed station and associated improvements, the construction contractor of the SJRRC shall prepare a vibration control plan that incorporates, at a minimum, the following best practices into the construction scope of work and specifications to reduce the impact of temporary construction-related vibration on nearby vibration-sensitive land uses:<br>• Avoid the use of impact pile-drivers where possible near vibration-sensitive areas, or use alternative construction methods (e.g., drilled piles) where geological conditions permit.<br>• Avoid vibratory compacting/rolling in close proximity to structures. | Less Than Significant. |

## Table 2.6-A: Summary of Impacts and Mitigation Measures

| Environmental Impacts | Level of Significance without Mitigation | Mitigation Measures | Level of Significance with Mitigation |
|---|---|---|---|
| | | • Require vibration monitoring during vibration-intensive activities.<br>• In the event building damage occurs due to construction, repairs would be made, or compensation would be provided.<br>**MM NOI-4: Conduct a detailed design-level vibration analysis.** During final design of the Project, a detailed design-level vibration analysis, shall be prepared by the construction contractor of the SJRRC for all track improvements that have the potential for adverse vibration impacts. The analysis shall include design features to reduce the potential vibration impacts to less-than-significant levels. Potential measures include possibly relocating crossovers/turnouts to areas without sensitive receptors, or through the use of special trackwork at these locations to eliminate the gap in the tracks which causes the increase in vibration levels. | |
| 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. | None. | Not Applicable. |
| **POPULATION AND HOUSING (Section 3.14 Initial Study)** | | | |
| Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | Less Than Significant. | None. | Not Applicable. |
| Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | No Impact. | None. | Not Applicable. |
| **PUBLIC SERVICES (Section 3.15 Initial Study)** | | | |
| 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 fire protection services? | Less Than Significant. | None. | Not Applicable. |
| 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 police protection services? | Less Than Significant. | None. | Not Applicable. |
| 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 schools? | No Impact. | None. | Not Applicable. |
| 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 parks? | No Impact. | None. | Not Applicable. |
| 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 | No Impact. | None. | Not Applicable. |

## Table 2.6-A: Summary of Impacts and Mitigation Measures

| Environmental Impacts | Level of Significance without Mitigation | Mitigation Measures | Level of Significance with Mitigation |
|---|---|---|---|
| environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities? | | | |
| **RECREATION (Section 3.16 Initial Study)** | | | |
| 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? | No Impact. | None. | Not Applicable. |
| 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? | No Impact. | None. | Not Applicable. |
| **TRANSPORTATION (Section 4.4 EIR)** | | | |
| Would the Project conflict with a program, plan, or ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities? | Less Than Significant. | None. | Not Applicable. |
| Would the Project conflict or be inconsistent with *CEQA Guidelines* §15064.3, subdivision (b)? | Less Than Significant. | None. | Not Applicable. |
| Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | Less Than Significant. | None. | Not Applicable. |
| Would the Project result in inadequate emergency access? | Less Than Significant. | None. | Not Applicable. |
| **TRIBAL CULTURAL RESOURCES (Section 3.18 Initial Study)** | | | |
| 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 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: (i) 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 (ii) 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 Resource Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | Potentially Significant. | Implementation of **MMs CUL-1** through **CUL-4.** | Less Than Significant. |
| **UTILITIES (Section 3.19 Initial Study)** | | | |
| Would the Project 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. | None. | Not Applicable. |
| Would there be sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years? | Less Than Significant. | None. | Not Applicable. |
| Would the Project 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 demand in addition to the provider's existing commitments? | Less Than Significant. | None. | Not Applicable. |
| Would the Project 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? | Less Than Significant. | None. | Not Applicable. |
| Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | Less Than Significant. | None. | Not Applicable. |
| **WILDFIRE (Section 3.20 Initial Study)** | | | |
| Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan? | Less Than Significant. | None. | Not Applicable. |

## Table 2.6-A: Summary of Impacts and Mitigation Measures

| Environmental Impacts | Level of Significance without Mitigation | Mitigation Measures | Level of Significance with Mitigation |
|---|---|---|---|
| Would the Project, 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? | Less Than Significant. | None. | Not Applicable. |
| Would the Project 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. | None. | Not Applicable. |
| Would the Project expose people or structure to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | No Impact. | None. | Not Applicable. |

Notes:
CDFW: California Department of Fish and Wildlife
ESA: Environmentally Sensitive Area
MLD: Most Likely Descendent
NPDES: National Pollutant Discharge Elimination System
NPS: National Park Service
PRC: Public Resource Code
RWQCB: Regional Water Quality Control Board
SJVAPCD: San Joaquin Valley Air Pollution Control District
SPCP: Spill Prevention and Countermeasures Plan
SWPPP: Storm Water Pollution Prevention Plan
VELB: Valley Elderberry Longhorn Beetle

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# 3.0 PROJECT DESCRIPTION

This chapter describes the proposed Project evaluated in this EIR. The proposed Project includes the construction of up to a 10,000-foot-long siding track to accommodate the operational requirements UPRR needs to allow passenger service to run in this corridor, a new station platform, modifications to an existing surface parking lot, construction of a pedestrian overcrossing, and development of a driveway at the primary parking lot entrance along Dwight Road. A description of the Project location, context, and background is followed by a list of Project objectives, details of the Project, and a list of required approvals and entitlements.

The following Project description serves as the basis for the environmental analysis contained in this EIR. SJRRC is both the Project co-proponent and the lead agency for evaluation of the Project pursuant to the CEQA. SJJPA is the other Project co-proponent.

## 3.1 PROJECT AREA

The following section describes the geographic context of the site, including its location and surrounding land uses and existing site characteristics.

### 3.1.1 Location and Surrounding Uses

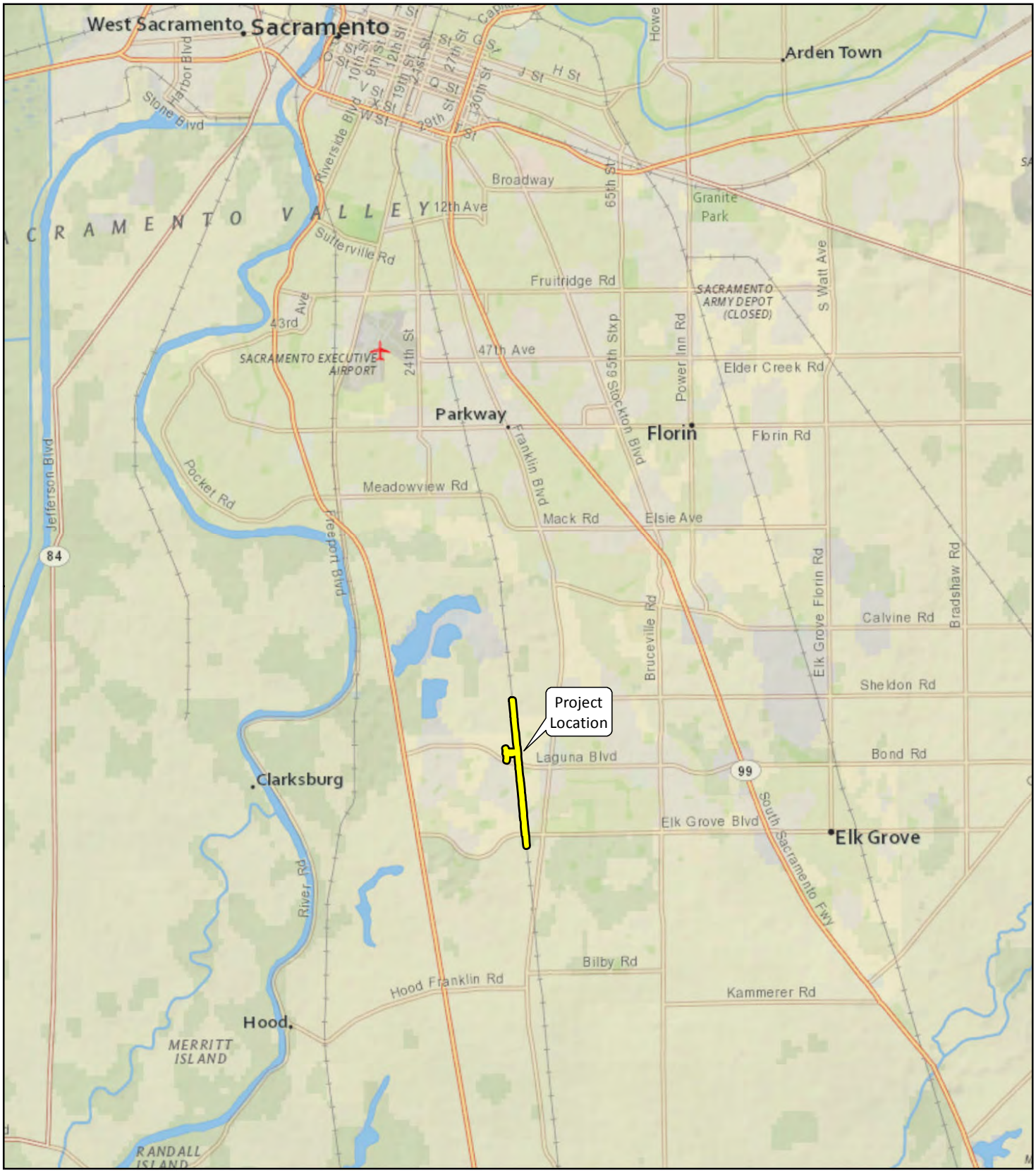
The Project study area is located in the City of Elk Grove, Sacramento County, California and extends along an alignment from just south of Elk Grove Boulevard at the southern limit and Sims Road at the northern limit. **Figure 3.1-1: Project Regional Location** shows the location of the proposed Project on a regional basis.

The proposed Project would be located on portions of 7 parcels: Assessor's Parcel Number (APN) 119-1540-021 and 119-0120-066 (proposed surface parking lot site); APN 119-1540-010 (proposed pedestrian overcrossing site); and APNs 119-0120-006, 119-0120-008, 119-0120-014, and 132-0020-002 (proposed platform, rail siding, and proposed UPRR mainline track site). Through the Project area, the existing UPRR corridor runs generally north-south. The Project study area is approximately 2.25 miles along the UPRR corridor, and the GPS coordinates of the northern and southern termini are latitude 38° 26' 16.0476" N and longitude 121° 27' 28.7712" W to latitude 38° 24' 17.6724" N and longitude 121° 27' 14.6916" W. **Figure 3.1-2: Project Vicinity** shows the location and vicinity of the proposed Project.

The proposed surface parking lot site consists of an approximately 3.4-acre site fronting Dwight Road north of the intersection of Dwight Road and Laguna Boulevard. The site currently serves as a storage parking lot for an adjacent self-storage facility (Laguna Self Storage) at the corner of the intersection of Dwight Road and Laguna Boulevard.

The proposed station platform site would be located in the UPRR corridor. From Laguna Boulevard north to Big Horn Boulevard, the UPRR corridor is surrounded by light industrial uses to the west and residential uses to the east. There is an existing storm water detention basin to the south of the proposed surface parking lot site and a drainage channel on the west side of the UPRR corridor beginning north of Laguna Boulevard. North of Big Horn Boulevard to Sims Road within the limits of Sacramento County are lands subject to the South Sacramento County Habitat Conservation Plan (HCP). The City of Elk Grove is not a party to the South Sacramento County HCP, and the proposed Project area does not include lands that are within the HCP limits.

Between Elk Grove Boulevard and Laguna Boulevard, the UPRR corridor is surrounded primarily by low-density residential uses and a resource management and conservation/parks and open space use to the east and west (John L. Zehnder Park). South of Elk Grove Boulevard, the UPRR corridor is surrounded by open space to the east and west. **Figure 3.1-3: Existing Land Uses** shows the existing land use designation surrounding the Project site.

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Project Location

FIGURE 3.1-1

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SOURCE: Esri National Geographic Basemap (2021); Elk Grove (2021)

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*Elk Grove Station*

Project Regional Location

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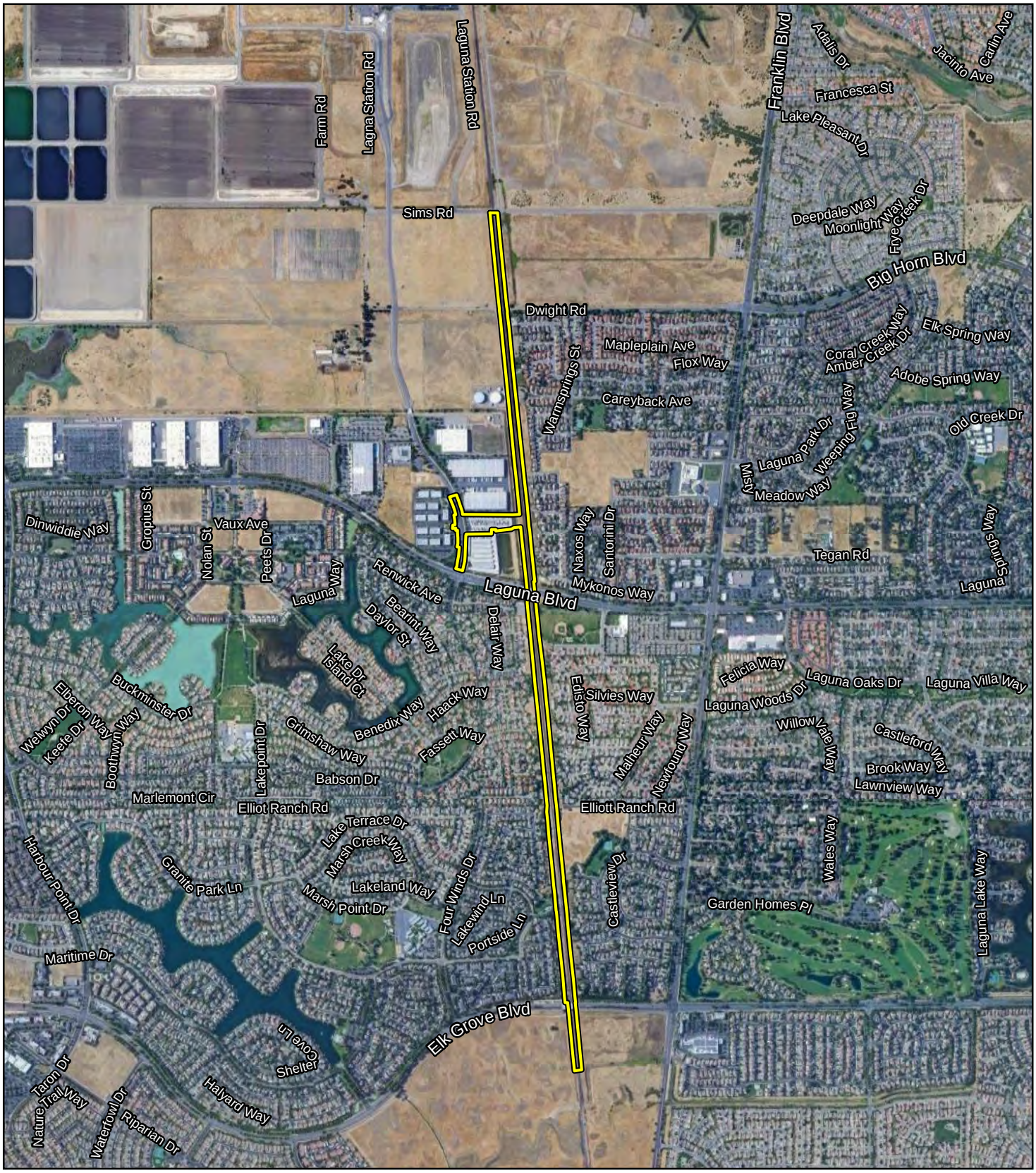


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Project Location

FIGURE 3.1-2

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SOURCE: Google (2020); Elk Grove (2021)

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*Elk Grove Station*

Project Vicinity

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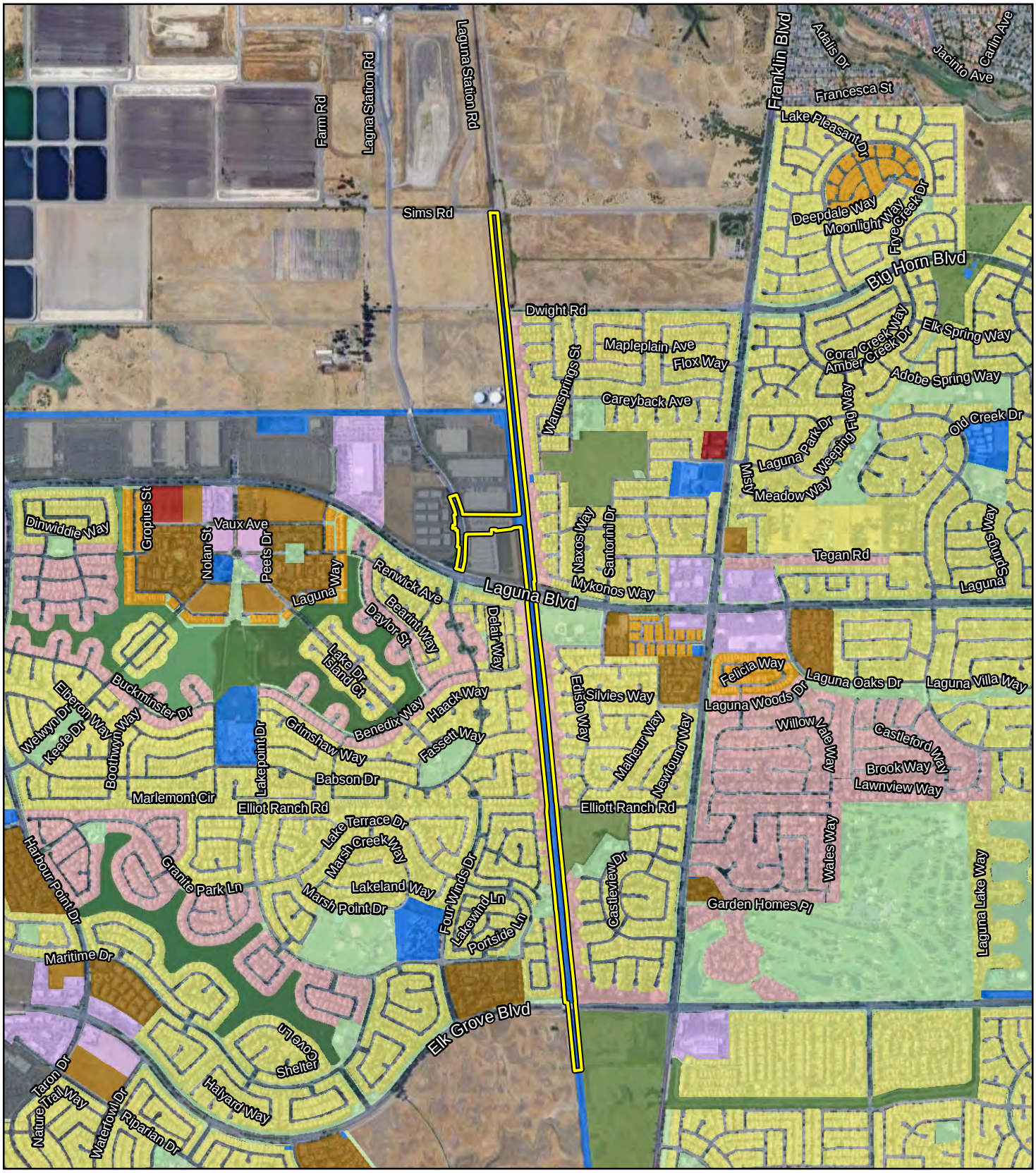


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Project Location

General Plan Land Use

- Community Commercial
- Employment Center
- Light Industrial
- Estate Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Parks and Open Space
- Public Services
- Resource Management and Conservation

N

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FIGURE 3.1-3

*Elk Grove Station*

General Plan Designations

SOURCE: Google Maps (2020); Elk Grove (2021)

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## 3.2 PROJECT BACKGROUND

In March 2020, the SJJPA and SJRRC released the *Valley Rail Extension Project Final Environmental Impact Report*, which analyzed the extension of passenger rail service to new markets in San Joaquin and Sacramento counties. While the March 2020 Draft EIR evaluated six new station sites, including a proposed station site just south of Cosumnes River Boulevard that would serve the Elk Grove community (North Elk Grove Station), during project approval, SJJPA and SJRRC removed the North Elk Grove Station in unincorporated Sacramento County from further consideration, and the station site was not part of the project Final EIR certified by the SJRRC on October 2, 2020. SJRRC and SJJPA have continued coordination efforts with the City of Elk Grove to determine a new station site that would serve the Elk Grove community. Those discussions resulted in the identification of the currently proposed station location, which is discussed below.

As discussed on Page 1-2 of the Valley Rail Sacramento Extension Project Final EIR (SJRRC and SJJPA 2020), "Final approval of a future Elk Grove Station at a site agreed to by all interested parties will be subject to a separate, stand-alone California Environmental Quality Act (CEQA) document that will be circulated for public review and comment at a later date." This Elk Grove Station Project EIR evaluates the proposed station and supporting rail siding that has been identified by SJJPA, SJRRC, the City of Elk Grove, and other stakeholders.

The SJRRC has considered whether the proposed Project has "independent utility," meaning it would be constructed and could operate absent the construction of other projects in the project area. The proposed Project would serve the Elk Grove community and would not depend on the other stations and various track improvements analyzed in the Valley Rail Sacramento Extension Project EIR. The proposed Project could be constructed and operate independently; therefore, the proposed Project can be considered as a separate single complete project with independent public and economic utility.

## 3.3 PROJECT PURPOSE AND OBJECTIVES

The purpose and objectives of the Project are to:

- Provide a passenger rail station that would serve the Elk Grove community.
- Reduce traffic congestion, improve regional air quality and reduce greenhouse gas emissions.
- Enhance commuter rail, intercity passenger rail, local transit service and transit connections.
- Promote local and regional land use and transportation sustainability goals.

## 3.4 PROPOSED PROJECT

The proposed Project would consist of the following components: up to a 10,000-foot-long siding track, a new station platform, a pedestrian bridge, elevators, and staircases connected to the pedestrian bridge, and a new station surface parking lot. **Figure 3.4-1: Proposed Project** shows the proposed Project improvements. The proposed Project would include full parcel acquisition of APN 119-1540-021. Partial acquisition may be required on APN 119-0120-066 for the southern portion of the proposed station parking lot, and partial acquisition and/or an easement may be required on 119-1540-010 for the proposed pedestrian overcrossing. APNs 119-0120-006, 119-0120-008, 119-0120-014, and 132-0020-002 would be developed with the proposed platform, rail siding, and

proposed UPRR mainline track. Individual project components are further described below (See **Appendix G** for design schematics of the proposed Project).

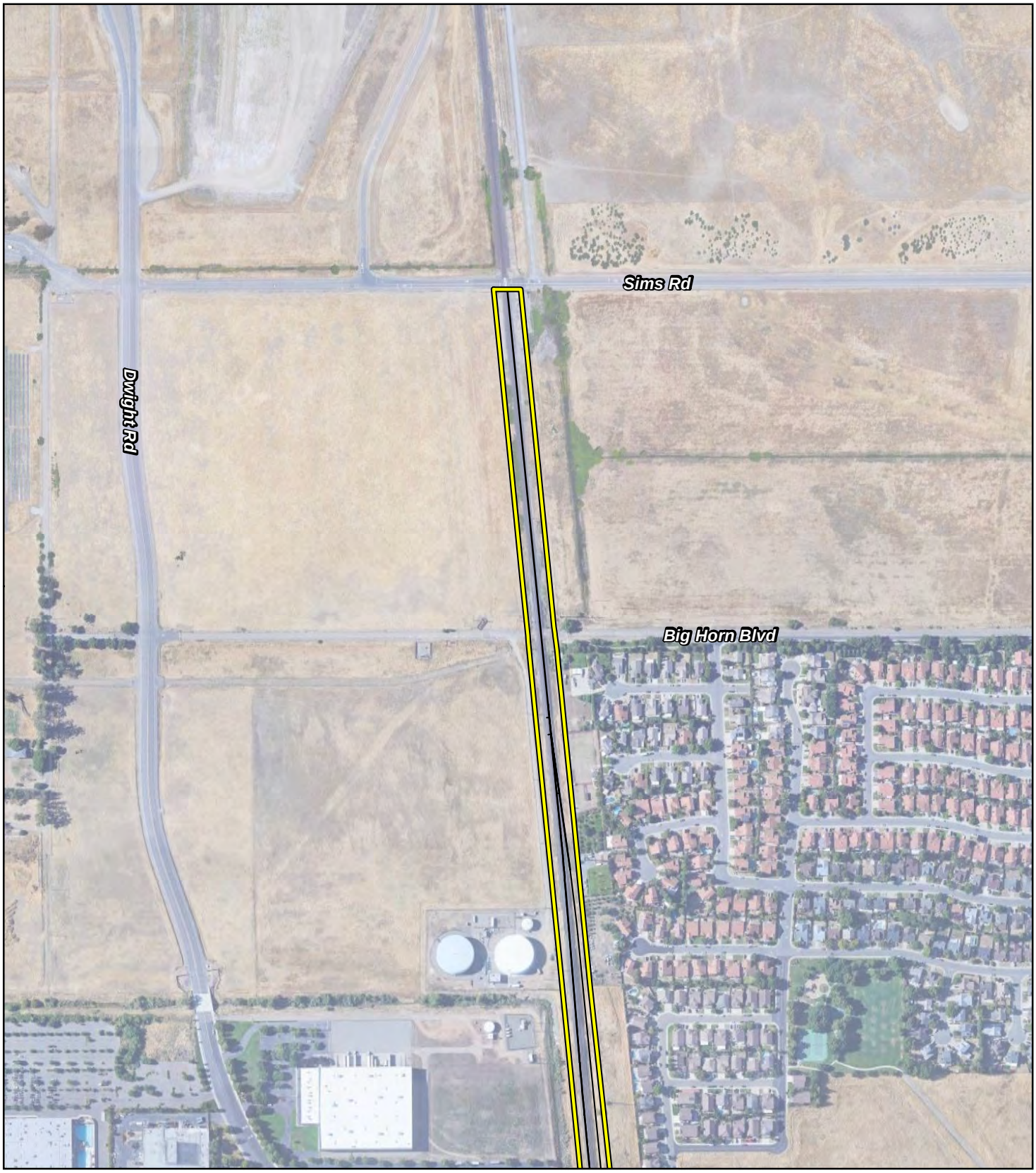
### 3.4.1 Siding Track

The proposed Project would require the construction of up to a 10,000-foot-long siding track parallel to the existing UPRR mainline track to accommodate the operational requirements UPRR needs to allow passenger service to run in this corridor and allow trains to pass each other. The proposed siding track would begin just north of Elk Grove Boulevard and extend to just south of Big Horn Boulevard. The Project also involves the removal and replacement of approximately 3,900 feet of existing UPRR mainline track between Laguna Boulevard and Big Horn Boulevard to accommodate construction of the station center loading platform between the UPRR mainline track and rail siding track. The platform, replaced mainline track, and siding track would be entirely within UPRR right-of-way.

The Project would install concrete crash barriers around the base of the bridge columns next to the proposed rail tracks at Laguna Boulevard.

### 3.4.2 Station Platform

The proposed station platform would be between the replaced mainline track and the siding track providing center passenger loading to trains on either track and would be located within UPRR right-of-way along the existing UPRR Sacramento Subdivision, which is the rail line that extends from Marysville in the north and Stockton in the south. Access to the station platform from the adjacent surface parking lot to the west would be provided by a pedestrian overcrossing that would be elevated over the replaced mainline track, an existing drainage channel, and existing maintenance road that are on the west side of the new platform. Access to the parking lot on the west side of the UPRR corridor would be via a new driveway along Dwight Road. The station platform, pedestrian overcrossing, and surface parking lot would be designed in compliance with ADA regulations and applicable federal transportation standards. The proposed station platform would be approximately 30 feet wide, 955 feet in length with the top surface of the platform 10 inches above the rail tracks. The station platform would be unattended (i.e., there would be a lack of human presence) and would include passenger amenities, such as passenger shelters, benches, lighting, security cameras, signage, public address systems, passenger information display systems, ticketing machines, bicycle storage facilities, landscaping, and emergency call boxes.

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Project Location

Proposed Project

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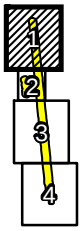


FIGURE 3.4-1

Sheet 1 of 4

*Elk Grove Station*

Proposed Project

SOURCE: Google Maps (2020); Elk Grove (2021)

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Project Location

Proposed Project

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1 2 3 4

FIGURE 3.4-1

Sheet 2 of 4

*Elk Grove Station*

Proposed Project

SOURCE: Google Maps (2020); Elk Grove (2021)

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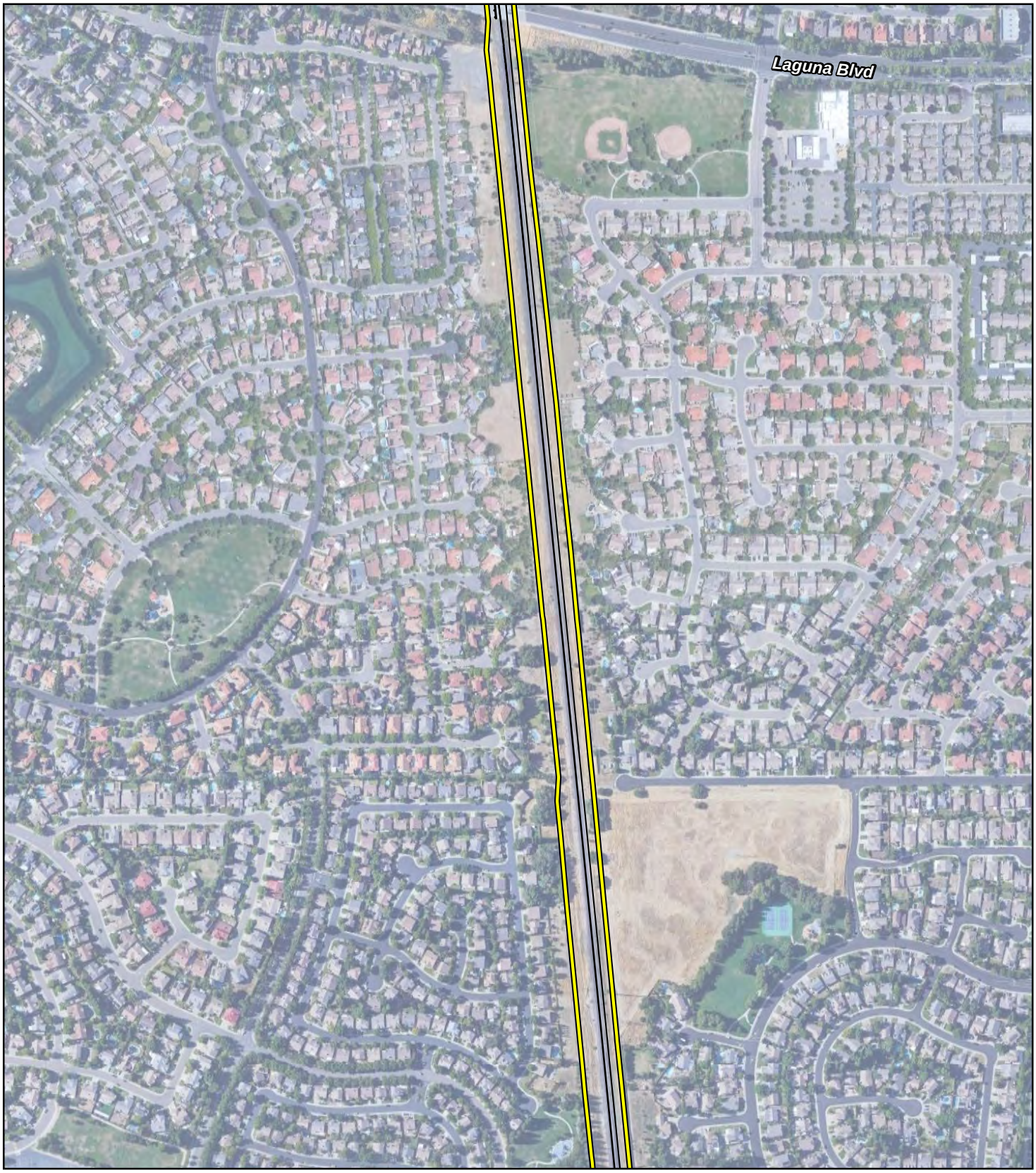


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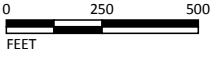
LEGEND

Project Location

Proposed Project


FIGURE 3.4-1

Sheet 3 of 4


*Elk Grove Station*

Proposed Project

SOURCE: Google Maps (2020); Elk Grove (2021)

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LEGEND

Project Location

Proposed Project

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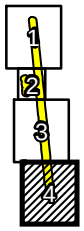


FIGURE 3.4-1

Sheet 4 of 4

*Elk Grove Station*

Proposed Project

SOURCE: Google Maps (2020); Elk Grove (2021)

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### 3.4.3 Pedestrian Overcrossing

The Project would include a pedestrian overcrossing that would provide access from the surface parking lot on the west side of the UPRR right-of-way to the passenger platform. The pedestrian overcrossing would be approximately 35 feet tall and would maintain clearance for vehicles using the maintenance road to access the drainage channel and existing utilities adjacent to the UPRR corridor. The pedestrian overcrossing would be constructed out of steel, concrete, or a combination of both materials with a minimum 10-foot-high railing on both sides of the overcrossing. The top of the overcrossing could be several feet higher than the railing depending on the final architectural treatments selected for the overcrossing and station. The bottom of the pedestrian overcrossing would be designed to maintain at least 23-foot-4-inch clearance over the UPRR tracks. On the parking lot side, the overcrossing would have stairs and elevators, while on the platform side, the overcrossing would connect to an elevated walkway that would run up the center of part of the platform with the platform stairs and elevators provided at each end of the walkway. The top of the walkway would be at a similar height to the top of the overcrossing. The elevated walkway would provide shelter along part of the platform and separate shelters would also be provided along other segments of the platform that would typically provide 10 feet of vertical clearance. Equipment required for the operation of the elevators would be higher than the top of the adjacent overcrossing and walkway but would be shielded with architectural treatments similar to other station elements. Extending the overcrossing from the platform to the east side of the UPRR right-of-way is restricted by the existing residential properties that back up to the UPRR right-of-way and existing overhead electrical transmission lines that run parallel to the UPRR right-of-way.

### 3.4.4 Access and Surface Parking Lot

The proposed Project would result in configuration of the proposed surface parking lot on APN 119-1540-021 and would include additional acquisition of the northern approximately 58 feet of APN 119-0120-066 to accommodate three bus bays. The proposed surface parking lot would accommodate approximately 227 parking spaces. The proposed station site was selected due to close proximity to existing pedestrian, bicycle and transit facilities to support use of the station by passengers utilizing non-motorized modes of transportation. SJRRC would work with the City of Elk Grove during final design to comply with the City of Elk Grove Municipal Code Section 23.54.050.

Primary access to the proposed surface parking lot would be from the proposed driveway on Dwight Road. The proposed driveway would provide signalized crosswalks for pedestrian and bicycle use as the closest crossing of Dwight Road is at the Laguna Boulevard signalized intersection to the south. The primary access driveway would serve as the ingress for passenger vehicles and would serve as the egress for all vehicles (including buses). A secondary access to the proposed parking lot would be located at the existing driveway to APN 119-0120-066. The secondary access would serve as a bus and emergency vehicle access point. The spacing between the primary driveway and the bus access driveway would be subject to City approval of a design exemption. Access to the proposed station parking lot would be from a single driveway at the new Dwight Road intersection that would accommodate ingress and egress for passenger vehicles. A bus entrance would be developed south of the new vehicular driveway to the proposed station parking lot. Buses would enter this dedicated bus entrance to access three bus bays and once loaded/unloaded, buses would circle around and head west in the internal drive aisle and exit at the main entrance (driveway) developed in

conjunction with the new Dwight Road intersection. This design would separate motor vehicles from buses and would avoid both having to use more internal drive aisles within the station parking lot. **Figure 3.4-2: Station Parking Lot Design Concept Plan** shows the concept plan for the station parking lot. Consistent with City regulations, parking lot shading will be provided, either through landscaping, solar shade canopies, or a combination of the two.

### 3.4.5 Transit Access

There are three local bus routes and potentially three commuter bus routes that would serve the proposed station. All routes would use standard 40-foot transit buses, either compressed natural gas (CNG; existing) or battery electric (future). **Table 3.4-A: Sacramento Regional Transit Bus Routes** lists the Sacramento Regional Transit (SacRT) bus routes that would serve the proposed station. SJRRC is coordinating with SacRT to extend and/or modify the existing bus routes to directly serve the proposed station where three bus bays are proposed as part of the surface parking lot improvements.

**Table 3.4-A: Sacramento Regional Transit Bus Routes**

| Route | Eastbound Trips | Westbound Trips |
|---|---|---|
| **Local Bus Routes[1]** | | |
| **Weekdays (254 days)** | | |
| E112 | 14 | 14 |
| E113 | 13 | 14 |
| E114 | 13 | 14 |
| **Saturdays (52 days)** | | |
| E112 | 0 | 0 |
| E113 | 7 | 8 |
| E114 | 7 | 8 |
| **Sunday/Holiday (59 days)** | | |
| No Service | | |
| **Commuter Bus Routes[1]** | | |
| **Weekday Service Only (254 days)** | | |
| E12 | 0 to 2 | 0 to 2 |
| E14 | 0 to 2 | 0 to 2 |
| E19 | 0 to 4 | 0 to 4 |

Source: SacRT, 2021
[1] 40-foot CNG or Battery Electric Buses

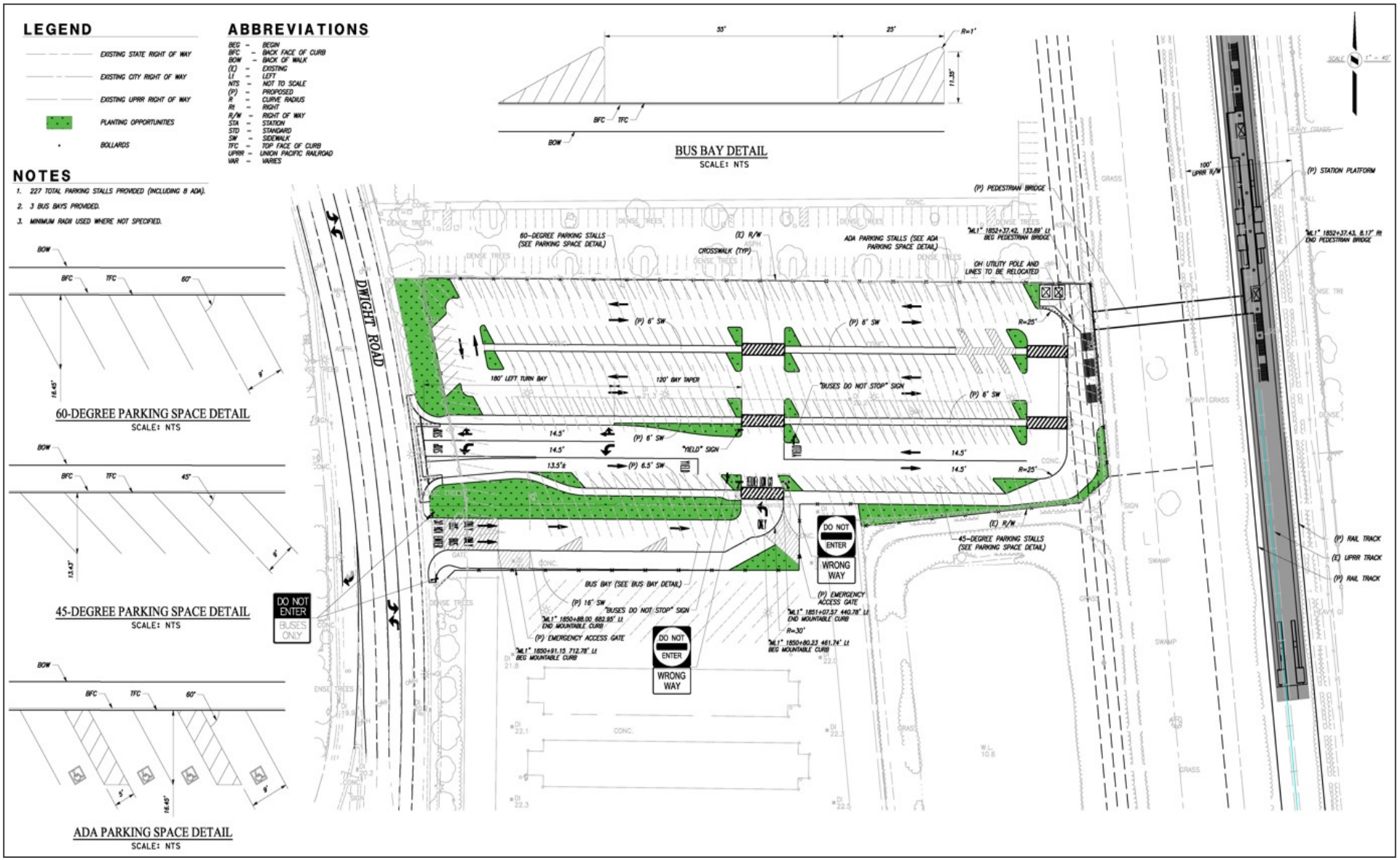


FIGURE 3.4-2

0 50 100
FEET

SOURCE: Mark Thomas

I:\MKT2104\G\Station_Lot_Plans.ai (9/20/2021)

*Elk Grove Station Project*

Station Parking Lot Design

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### 3.4.6 Culverts and Drainage

Existing culverts within UPRR right-of-way along the limits of the proposed rail siding would be extended, where needed, to accommodate the planned improvements. Existing drainage facilities in the surface parking lot area would be modified, where needed, to accommodate surface improvements that could include raised curb, curb and gutter, sidewalks, medians, and new driveway connecting to Dwight Road. Existing drainage facilities along Dwight Road would be modified, where needed, to accommodate the new intersection at the entrance to the surface parking lot.

### 3.4.7 Lighting

To minimize the creation of new sources of light and glare, all artificial outdoor lighting would be limited to safety and security requirements, designed using Illuminating Engineering Society's design guidelines, and in compliance with International Dark-Sky Association approved fixtures. As discussed in Section 3.8 of the SJRRC's *Valley Rail Station Design Guidelines* (2021), lighting would be designed to accomplish their primary purpose in specific zones (i.e., parking lot, station site, pedestrian lighting); and would use downcast, cut-off–type fixtures that direct the light only towards objects requiring illumination. Shielding would be used, where needed, to ensure light pollution is minimized. Lights would be installed at the lowest allowable height and cast low-angle illumination, while minimizing incidental light spill onto adjacent properties, open spaces, or backscatter into the nighttime sky. The lowest allowable illuminance level would be used for all lighted areas, and the amount of nighttime lights needed to light an area would be minimized to the highest degree possible. Light fixtures would have non-glare finishes that would not cause reflective daytime glare. Lighting would be designed for energy efficiency and have daylight sensors or be timed with an on/off program. Lights would provide good color rendering with natural light qualities with the minimum intensity feasible for security, safety, and personnel access. Lighting, including light color rendering and fixture types, would be designed to be aesthetically pleasing.

The placement of luminaires would allow for movement of pedestrians, bicyclists, or vehicles and would be coordinated with the final landscape plan to avoid plantings obstructing light distribution. Pedestrian scale lighting would be provided along walkways, crosswalks, ramps, stairs, and multi-use paths. Lighting would promote security by providing illumination levels, color, and quality sufficient for quality high-definition recordings by security cameras and for accuracy of license plate readers at night in parking areas as well as at the station entrance/exit (SJRRC 2021).

### 3.4.8 Ridership

Estimated daily ridership in 2025 at the proposed station is anticipated to be 890 daily passengers. The total represents the sum of boardings and alightings, such that the actual number of unique riders (i.e., individuals) would be half that value (assuming each passenger passes through the station twice on a given day) (Fehr & Peers 2021).

### 3.4.9 Conceptual Service Plan

ACE currently operates four westbound trains weekday mornings from Stockton to San Jose, and four eastbound trains weekday afternoons from San Jose to Stockton. Currently, ACE does not offer weekend service.

Amtrak's San Joaquins service was reduced due to the COVID pandemic, but SJJPA anticipates reinstating the service by spring of 2022. When operating, the San Joaquins service includes trains between Sacramento and Bakersfield (two daily southbound trains and northbound trains), and between Oakland and Bakersfield (five daily southbound and northbound trains).

The approved Valley Rail Sacramento Extension Project included the operation of two new round trip San Joaquins and extension of ACE service along the Sacramento Subdivision and new ACE service between the San Joaquin Valley and Sacramento. The proposed Project does not include changes in train frequency but would introduce service to the Elk Grove community consistent with the preliminary conceptual service plan described in the Valley Rail Sacramento Extension Project EIR. Tier 4 Siemens Chargers using renewable diesel fuel pulling 5 to 10 coaches would operate along the rail corridor, and the train dwell time at the proposed station would be on average about1 minute. The preliminary conceptual service plan as defined in the Valley Rail Sacramento Extension Project EIR is described below.

#### *3.4.9.1 San Joaquins*

As described in Chapter 2 of the Valley Rail Sacramento Extension Project EIR, implementation of that project includes two new round trip San Joaquins operating on the Sacramento Subdivision. Additional trips are not proposed as part of the proposed station project; however, the proposed Project would provide a stop that would serve the Elk Grove community.

#### *3.4.9.2 ACE*

As described in Chapter 2 of the Valley Rail Sacramento Extension Project EIR, implementation of that project also includes an extension of ACE service to the proposed Natomas/Sacramento Airport Station. Existing ACE service includes one round trip from Natomas to San Jose, three round trips from Ceres/Merced to Natomas, and one round trip from Stockton to Natomas. Additional trips are not proposed as part of the proposed station project; however, the proposed Project would offer a stop that would serve the Elk Grove community.

### 3.4.10 Construction Methods

#### *3.4.10.1 Staging Area*

The proposed surface parking lot would serve as the Project staging area during construction of the proposed station platform, surface parking lot, and proposed track work.

#### *3.4.10.2 Track*

Construction of new track would include grading for the track subgrade with graders and excavators, and the placement of subballast and ballast. Concrete or wood ties would then be laid out. Continuous Welded Rail (1,000-foot-long rail strings) are welded together and clipped to ties. The ballast is tamped with on-track machinery along with the final adjustments to the alignment and profile. Construction of new main track in the UPRR right-of-way would occur in segments; once the subgrade, ballast, and main track are installed for one segment, construction would continue down the alignment. The duration of construction activities for a new track generally lasts approximately 4 to 12 months.

### *3.4.10.3 Station*

Station improvements would include the construction of new station facilities, such as a station platform, station tracks, and passenger amenities, a surface parking lot, a pedestrian overcrossing between the parking area and station platform, and a new intersection on Dwight Road at the entrance to the surface parking lot.

Construction activities associated with station platforms include clearing and grubbing, rough grading, structural excavation for walls, forming and pouring concrete for the walls, access stairs and ramps, platform surface, installation of signage, shelters, lighting, security, railings, benches, and trash receptacles.

Construction activities associated with station tracks around the platform would be similar to track work activities described above.

Construction activities associated with surface parking areas would include development of a new intersection on Dwight Road, modified striping and signage along Dwight Road to accommodate the new intersection, clearing and grubbing, rough and final grading for the new access area between Dwight Road and the surface parking area, installation of drainage and utilities, installation of subbase and paving, installation of curb, curb and gutter, sidewalk, raised medians, pedestrian ramps, landscaping, installation of lighting and security, and installation of signage and striping.

Construction activities associated with the pedestrian overcrossing includes clearing and grubbing, rough grading, installation of utilities, installation of cast-in-drilled-hole or driven piles, installation of stair footings, placing column reinforcing steel, pouring structural concrete for columns, placing falsework for stairs and abutments, pouring structural concrete for stairs and abutments, placing reinforcing steel and pouring structural concrete for decks, placing handrails for stairs, placing railing for the elevated section of the overcrossing, installation of elevators, installation of signage, and installation of lighting.

### *3.4.10.4 Utilities*

Construction of the proposed Project is anticipated to affect some existing utilities in the Project area. Based on existing utility information provided by utility owners, the following utilities exist in the Project area.

- **UPRR right-of-way:** There are existing underground sanitary sewer, gas, and communication lines running along the UPRR right-of-way; underground electrical, water, sanitary sewer, gas, and cable television lines crossing UPRR right-of-way just south of Big Horn Boulevard, just south of Laguna Boulevard, and just south of Elk Grove Boulevard; and overhead electrical lines crossing UPRR right-of-way at one location between Laguna Boulevard and Elk Grove Boulevard. The replaced mainline track, siding track, and platform would be constructed close to existing grade within existing UPRR right-of-way and relocation of existing utilities is not anticipated. The pedestrian overcrossing would have deep support foundations that may conflict with existing utilities on the west side of the UPRR right-of-way requiring relocation that include gas and communication lines.

- **Dwight Road:** Existing underground sanitary sewer, electrical, communication, street lighting, and water lines are located within the Dwight Road right-of-way. On the east side of Dwight Road where the new driveway access to the parking lot is proposed, there are existing underground electrical, communication, and water lines. The driveway would be constructed close to existing grade similar to the adjacent driveway to the Laguna Self Storage facility. Street lighting and an above ground electrical cabinet may require relocation. New light standards, signals, and/or pedestrian pushbuttons on Dwight Road would be placed to avoid existing underground utilities.

- **Private Property West of UPRR Corridor:** The proposed parking lot would be located on a private parcel fronting the east side of Dwight Road. Existing utilities on the east side of the parcel are located in easements that have overhead electrical and underground sanitary sewer lines. The proposed pedestrian overcrossing would have deep support foundations, but these would be placed to avoid impacts to the existing underground sanitary sewer line. The pedestrian overcrossing would conflict with the overhead electrical line requiring relocation that could be accomplished by raising the electrical wires or relocating the wires underground in this location. Existing water line service feeding from the water lines along Dwight Road for the developed private parcel may need to be modified or relocated to accommodate the Project improvements. Between the private parcel and the UPRR right-of-way, there is existing privately owned right-of-way for a drainage channel and maintenance road with utility easements containing underground sanitary sewer, water, and communication lines. It is anticipated that existing utilities on this privately owned right-of-way would not require relocation.

- **Private Property East of UPRR Corridor:** There is an existing utility easement on the private parcels next to the east side of the UPRR corridor that has an existing overhead electrical line. No work is proposed east of the UPRR corridor, so relocation/modification of existing utilities is not anticipated.

SJRRC would coordinate with utility owners during the final design phase of the Project to accurately locate existing underground utilities and evaluate existing underground and overhead utilities potentially in conflict with the Project improvements to assess potential relocation needs or methods for protecting existing utilities in place.

#### *3.4.10.5 Schedule*

Construction of the proposed Project is anticipated to occur over a 14-month duration. The proposed station is anticipated to be completed in 14 months, while the proposed siding and relocated UPRR track is anticipated to be completed in 8 months. The construction of the proposed station platform and proposed siding and relocated UPRR track is anticipated to occur in parallel. The proposed Project is anticipated to be operational by early 2025.

## 3.5 DISCRETIONARY ACTIONS AND USES OF THIS EIR

A number of permits and approvals, including discretionary actions, would be required prior to implementation of the Project. As lead agency for the Project, SJRRC would be responsible for the majority of the approvals required for development, including but not limited to, use permits and tree removal permits. Other agencies may also have some authority related to the Project and its approvals, as described in **Table 3.5-A: Required Permits and Approvals**, below.

### Table 3.5-A: Required Permits and Approvals

| Agency | Permit/Approval |
|---|---|
| Federal Railroad Administration | Potential National Environmental Policy Act review and approval if federal funding is available for the Project. |
| U.S. Army Corps of Engineers | Permit for effects on wetlands and other waters of the United States under Section 404 of the Clean Water Act (CWA). |
| U.S. Fish and Wildlife Service | Concurrence of effects on listed terrestrial wildlife and plant species under ESA Section 7 consultation process; issuance of a biological opinion. |
| California State Transportation Authority | Potential source of funding. |
| California Department of Fish and Wildlife | Permits for the placement of structures affecting waterways under Section 1602 streambed alteration agreement. |
| California Department of Toxic Substances | Review of worker health and safety plan. |
| California Public Utilities Commission | Approvals required for rail crossing improvements. |
| Regional Water Quality Control Board | Permits under the CWA Section 401 water quality certification/waste discharge requirements for placement of structures affecting waterways, and under the Porter-Cologne Water Quality Control Act. |
| State Water Resources Control Board (SWRCB) | General construction activity stormwater permit under Section 402 National Pollutant Discharge Elimination System (NPDES). |
| Sacramento Area Council of Governments | Potential source of funding. |
| City of Elk Grove | Encroachment permit for construction in city right-of way. Use and building permits for improvements outside rail right-of-way. Design Review for Project components built in City jurisdiction. |

Source: Compiled by LSA Associates, Inc. (2021).

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# 4.0 EXISTING SETTING, ENVIRONMENTAL ANALYSIS, IMPACTS, AND MITIGATION MEASURES

This chapter provides a discussion of the regulatory setting, environmental setting, and impact analyses (including mitigation measures for potentially significant impacts), associated with construction, operation, and maintenance of the proposed Project. Environmental topics addressed in this EIR include: Aesthetics, Air Quality, Noise, and Transportation. The environmental topics addressed in the Initial Study, for which impacts were determined less than significant and/or for which SJRRC determined no additional analysis was warranted in the EIR, are presented in **Appendix A**: Agriculture and Forestry Resources, Biological Resources, Cultural Resources, Energy, Geology, Soils and Paleontological Resources, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use Planning, Population and Housing, Public Services, Recreation, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire. Evaluation of the resource topics is based on the guidance found in Appendix G of the *Guidelines for the California Environmental Quality Act* (*State CEQA Guidelines*) (CCR Title 14, Chapter 3, Section 15000-15387).

For each environmental impact issue analyzed, the EIR includes a detailed explanation of the existing conditions, thresholds of significance that will be applied to determine whether the Project's impacts are significant or less than significant, analysis of the environmental impacts, and a determination of whether the Project would have a significant impact if implemented. A "significant impact" or "significant effect" means "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and object of aesthetic significance. An economic or social change by itself shall not be considered to be a significant effect on the environment" (14 CCR Section 15382).

Each section is organized into eight subsections, as follows:

- **Introduction** briefly describes the topics and issues covered in the section.
- **Scoping Process** briefly summarizes any relevant comments that were received during the scoping process.
- **Existing Environmental Setting** describes the relevant physical conditions that exist at the time of the issuance of the Initial Study/Notice of Preparation (IS/NOP) that may influence or affect the issue under investigation. This section focuses on physical site characteristics that are relevant to the environmental topic analyzed.
- **Regulatory Setting** lists and discusses the laws, ordinances, regulations, plans, and policies that relate to the specific environmental topic and how they apply to the proposed Project.
- **Methodology** describes the approach and methods employed to complete the environmental analysis for the issue under investigation.

- **Thresholds of Significance** sets forth the thresholds that are the basis of the conclusions regarding significance, which are primarily the criteria in Appendix G to the *State CEQA Guidelines*, *City of Elk Grove General Plan* (2021a) and Municipal Code (2019b), and Sacramento County General Plan and Municipal Code.

- **Project Impacts** describes the potential environmental changes to the existing physical conditions that may occur if the proposed Project is implemented. Evidence is presented to show the cause-and-effect relationship between the proposed Project and potential changes in the environment. In accordance with *State CEQA Guidelines* Section 15126.2(a), this EIR is required to "identify and focus on the significant environmental effects" of the proposed Project. The magnitude, duration, extent, frequency, and range or other parameters of a potential impact are ascertained to the extent feasible to determine whether impacts may be significant. In accordance with CEQA, potential Project impacts, if any, are classified as follows for each of the environmental topics discussed in this EIR.

    - Significant and Unavoidable Impact: If the proposed Project is approved with significant and unavoidable impacts, the decision-making body is required to adopt a statement of overriding considerations pursuant to State CEQA Guidelines Section 15093 explaining why the project benefits outweigh the unavoidable adverse environmental effects caused by those significant and unavoidable environmental impacts.

    - Less than Significant Impact with Mitigation Incorporated: This classification refers to potentially significant environmental impacts that can be feasibly mitigated to a level of insignificance. If the proposed Project is approved, the decision-making body is required to make findings pursuant to State CEQA Guidelines Section 15091 that significant impacts have been mitigated to the extent feasible through implementation of mitigation measures.

    - Less than Significant Impact: Less than significant impacts are environmental impacts that have been identified but are not potentially significant. No mitigation is required for less than significant impacts.

    - No Impact: A "no impact" determination is made when the proposed Project is found to have no environmental impact.

- **Level of Significance Prior to Mitigation** summarizes the potentially significant impacts of the Project, if any, prior to mitigation.

- **Mitigation Measures** are project-specific measures that avoid, minimize, rectify, reduce, eliminate, or compensate for a potentially significant impact.

    - **Regulatory Compliance Measures** may also be identified in this section. Regulatory Compliance Measures describe any relevant and applicable laws or regulations that must be adhered to with respect to the construction or operation of the proposed project and would reduce or lessen potential impacts related to a particular issue area.

- **Level of Significance after Mitigation** describes the significance of potential impacts after implementation of mitigation measures. Potential significant unavoidable impacts are clearly stated in this section.

Sections 4.1 through 4.4 of this EIR describe the environmental setting of the Project as it relates to each specific environmental topic and the impacts that are expected to result from implementation of the proposed Project. Mitigation measures are proposed to reduce potential impacts, where appropriate. The analysis presented in Sections 4.1 through 4.4 of this EIR are based on the thresholds as presented in Appendix G of the current *CEQA Statute and Guidelines*.

## 4.1 AESTHETICS

This section identifies the existing visual characteristics and aesthetic resources on the Project site and in the surrounding area and evaluates the potential for changes in visual character that could result from Project implementation. This section also evaluates the potential loss of existing visual resources, effects on public views, visual compatibility with existing uses, and light and glare impacts.

Information in this section is based on photographs of the Project site taken during field surveys and site visits; renderings of future development associated with the Project; and the *City of Elk Grove General Plan* (2021a).

### 4.1.1 Scoping

SJRRC received 21 comment letters during the NOP scoping period. The comment letters included two concerns/comments pertaining to aesthetic resources:

- Recommendations to underground existing overhead utilities.
- Concerns regarding parking lot and platform light/glare spillover onto neighboring properties.

This EIR section considers the comments received during the NOP scoping period specifically pertaining to aesthetic resources and provides analysis of the Project impacts.

### 4.1.2 Methodology

#### 4.1.2.1 Key Concepts and Terminology

The assessment of aesthetic impacts is subjective by nature. This analysis identifies and objectively examines factors that contribute to the perception of aesthetic impacts that would be caused by implementation of the proposed Project. The potential aesthetic impacts of the proposed Project are assessed based on consideration of several factors, including scale, mass, proportion, and the concepts described below.

- **Scenic Resources:** Scenic resources are defined as natural or manmade elements that contribute to an area's scenic value and are visually pleasing. Scenic resources include landforms, vegetation, water, or adjacent scenery and may include a cultural modification to the natural environment. The degree to which these resources are present in a community is clearly subject

to personal and cultural interpretation. However, it is possible to qualify certain resources as having aesthetic characteristics and establish general guidelines for assessing the aesthetic impacts of new development.

- **Scenic Vista:** A scenic vista is a viewpoint that provides expansive views of a highly valued landscape for the public's benefit. It is usually viewed from some distance away. Aesthetic components of a scenic vista include (1) scenic quality, (2) sensitivity level, and (3) view access. A scenic vista can be impacted in two ways: a development project can have visual impacts by either directly diminishing the scenic quality of the vista or by blocking the view corridors or "vista" of the scenic resource. Important factors in determining whether a proposed project would block scenic vistas include the project's proposed height, mass, and location relative to surrounding land uses and travel corridors.

- **Sensitive Views:** Sensitive views are generally those associated with designated public vantage points and public recreational uses, but the term can be more broadly applied to encompass any valued public vantage point. Sensitivity level has to do with the (1) intensity of use of a visual resource; (2) visibility of a visual resource; and (3) importance of the visual resource to users.

- **Scenic Corridors:** Scenic corridors are channels that facilitate movement (primarily by automobile, transit, bicycle, or foot) from one location to another with expansive views of natural landscapes and/or visually attractive manmade development. Scenic corridors analyzed under CEQA typically include State-designated scenic highways and locally designated scenic routes.

- **Scenic Quality:** Scenic quality relates to a streetscape, building, group of buildings, or other manmade or natural feature that creates an overall impression of an area within an urban context. For example, a scenic vista along the boundary of a community, a pleasing streetscape with trees, and well-kept residences and yards are scenic resources that create a pleasing impression of an area. In general, concepts of scenic quality can be organized around four basic elements: (1) site utilization, (2) buildings and structures, (3) landscaping, and (4) signage. Adverse scenic quality effects can include the loss of aesthetic features or the introduction of contrasting features that could contribute to a decline in overall scenic quality.

- **Glare:** A continuous or periodic intense light that may cause eye discomfort or be temporarily blinding to humans.

- **Light Sources:** A device that produces illumination, including incandescent bulbs, fluorescent and neon tubes, halogen and other vapor lamps, and reflecting surfaces or refractors incorporated into a lighting fixture. Any translucent enclosure of a light source is considered to be part of the light source.

- **Regulations Governing Scenic Quality.** Visual impacts are evaluated based on the Project's consistency with design guidelines in the City's General Plan and development standards related to aesthetics in the City's Municipal Code (2019b).

The impact analysis focuses on aesthetic-related changes to the Project site and surrounding area that may result from construction and operation of the proposed Project. This would include changes in vistas and viewsheds where visual changes would be evident, potential conflicts with applicable zoning and other regulations governing scenic quality, changes to scenic resources along designated scenic roads, and the introduction of new sources of light and glare.

The viewshed impact analysis evaluates Project impacts from three viewing distance zones, as explained below.

- **Foreground Views:** These views include elements that are seen at a close distance and that dominate the entire view. These vantage points are generally 50 feet or less from the Project site, surrounding topography, and other prominent physical features in the Project vicinity.

- **Middle-Ground Views:** These views include elements that are seen at a moderate distance and that partially dominate the view. These vantage points are generally located between 500 feet and 1 mile from the Project site.

- **Background Views:** These views include elements that are seen at a long distance and typically comprise horizon-line views that are part of the overall visual composition of the area. These vantage points are generally farther than 1 mile from the Project site.

**Light and Glare.** The analysis of light and glare identifies the location of light-sensitive land uses and describes the existing ambient conditions on and in the vicinity of the Project site. The analysis describes the proposed Project's light and glare sources and the extent to which project lighting, including any potential illuminated signage, would spill off the Project site onto adjacent light-sensitive areas. The analysis also describes the affected street frontages, the direction in which the light would be focused, and the extent to which the proposed Project would illuminate sensitive land uses. The analysis also considers the potential for sunlight to reflect off windows and building surfaces (glare) and the extent to which such glare would interfere with the operation of motor vehicles, aviation, or other activities. Glare can also be produced during evening and nighttime hours by artificial light sources, such as illuminated signage and vehicle headlights. Glare-sensitive uses generally include residences and transportation corridors (i.e., roadways).

**Shade/Shadow.** Prolonged periods of shade and shadowing have the potential to negatively affect the character of certain land uses. Shadow-sensitive uses include routinely used outdoor spaces associated with residential, recreational, or institutional land uses; commercial uses (e.g., pedestrian-oriented outdoor spaces or restaurants with outdoor seating areas); and existing or planned solar collectors/panels.

#### 4.1.2.2 Approach

As stated above, the assessment of aesthetic impacts is subjective by nature. The analysis identifies and objectively examines factors that contribute to the perception of aesthetic impacts due to Project implementation. The Project's potential aesthetic impacts are assessed based on consideration of several factors, including scale, mass, proportion, and the concepts described above. Key views from public vantage points and near sensitive receptors are used in the analysis to

demonstrate pre- and post-project visual conditions at the Project site and surrounding area. Overall, the analysis in this section evaluates aesthetic changes that would occur because of Project implementation.

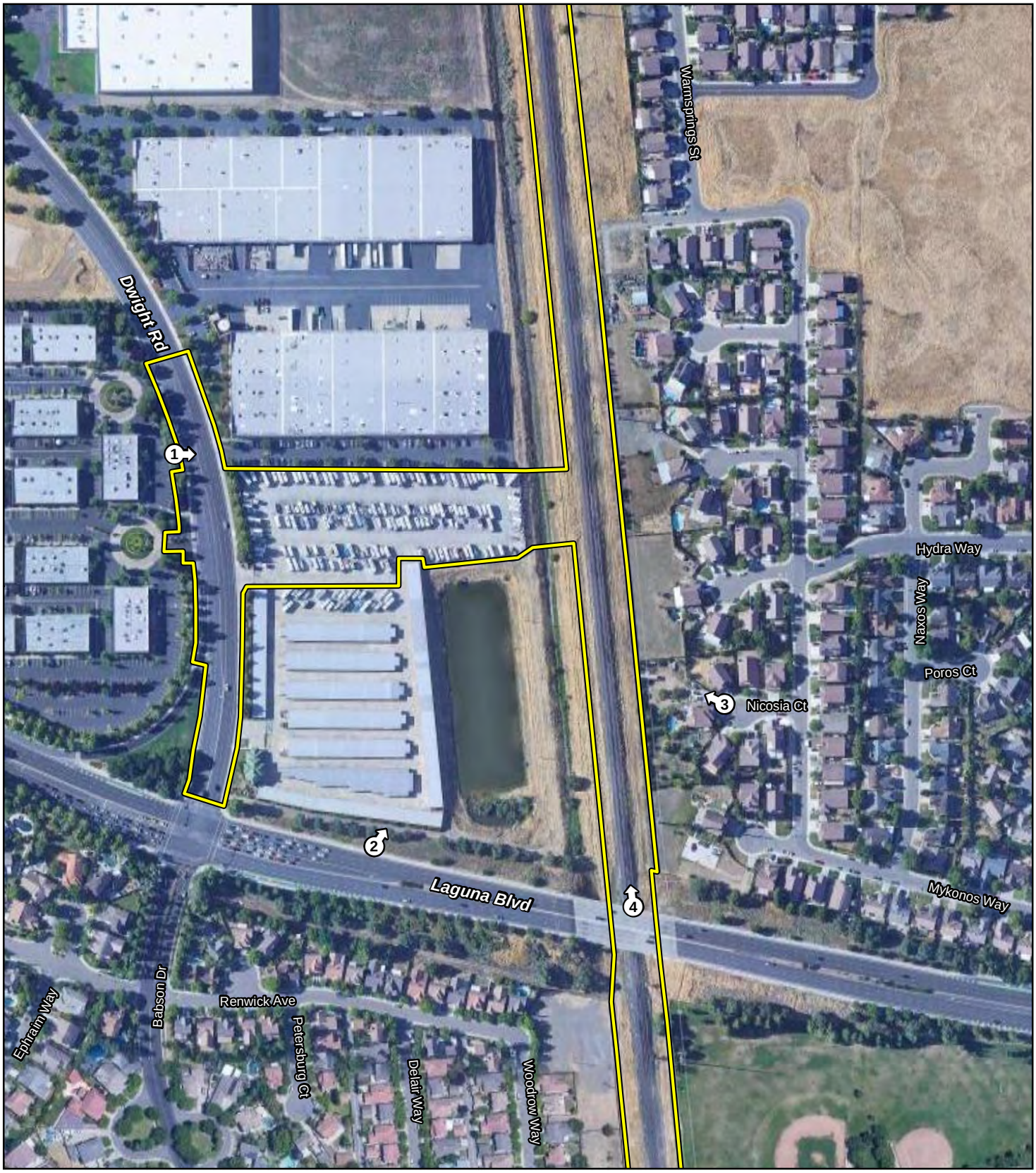
**Figure 4.1-1: Key View Locations** illustrates the four vantage points from which key view photographs were taken and illustrates the representative view from that location. **Figure 4.1-2: Key Views 1 through 4** illustrates each of the four key views selected for this analysis as seen under existing conditions. Additionally, visual impacts are evaluated based on the Project's consistency with goals and policies established in the *City of Elk Grove General Plan* (2021a) and development standards related to aesthetics in the City's Municipal Code (2019b).[1] The key view locations represent views of the Project site from sensitive receptors in single-family residential units east of the Project site, customers at commercial uses west and north of the Project site, and motorists along Laguna Boulevard looking north toward the Project site.

### 4.1.3 Existing Environmental Setting

The proposed Project would consist of two components totaling 35 acres: the parking lot and road improvements (5 acres) and the station platform and rail line improvements (30 acres). The proposed Project would be located in the City of Elk Grove on portions of 7 parcels: Assessor's Parcel Number (APN) 119-1540-021 and 119-0120-066 (proposed surface parking lot site); APN 119-1540-010 (proposed pedestrian overcrossing site); and APNs 119-0120-006, 119-0120-008, 119-0120-014, and 132-0020-002 (proposed platform, rail siding, and proposed UPRR mainline track site).

The location of the proposed parking lot is currently occupied by the Laguna Self Storage business (3000 Dwight Road) and contains surface parking for storage of large vehicles (i.e., trucks, trailers, boats, and motorhomes). The proposed station platform site would be located in the UPRR corridor. From Laguna Boulevard north to Big Horn Boulevard, the UPRR corridor is surrounded by light industrial uses to the west and residential uses to the east. There is an existing storm water detention basin to the south of the proposed surface parking lot area and a drainage channel on the west side of the UPRR corridor north of Laguna Boulevard. North of Big Horn Boulevard to Sims Road within the limits of Sacramento County are lands subject to the South Sacramento County Habitat Conservation Plan (HCP). The City of Elk Grove is not a party to the South Sacramento County HCP, and the Project site does not include lands that are within the HCP limits. Between Elk Grove Boulevard and Laguna Boulevard, the UPRR corridor is surrounded primarily by low-density residential uses and a resource management and conservation/parks and open space use to the east and west (John L. Zehnder Park). South of Elk Grove Boulevard, the UPRR corridor is surrounded by open space to the east and west. The existing visual characteristics of the Project site are those of an urbanized area.

[1] The aesthetics analysis in this EIR is based on the Project's consistency with the City of Elk Grove General Plan and the City's Municipal Code. While the northern portion of the Project is adjacent to lands subject to the *County of Sacramento General Plan* and the County's *Municipal Code*, the Project improvements in that area would occur entirely within the UPRR corridor. Activities in existing UPRR right-of-way are exempt from local building and zoning codes and other land use ordinances. This analysis focuses on the development of Project facilities outside of the UPRR corridor.




LSA

LEGEND

Project Location

Key View Locations

FIGURE 4.1-1

N

0 150 300

FEET

SOURCE: Google (2020); Elk Grove (2021)

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*Elk Grove Station Project*

Key View Locations

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**Key View 1** from Dwight Road, looking west towards the Project.

**Key View 2** from Laguna Boulevard near Dwight Road, looking northeast towards the Project.

**Key View 3** from Nicosia Court, looking northwest towards Project.

**Key View 4** from the Laguna Boulevard overcrossing, looking north towards the proposed station platform.

LSA

FIGURE 4.1-2

*Elk Grove Station Project*

Existing Key Views 1 through 4

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According to the United States Census Bureau (2012), the City of Elk Grove is located within the Sacramento, CA Urbanized Area (U.S. Census Bureau 2012). As described in *State CEQA Guidelines* Section 15387 and defined by the United States Census Bureau, an "urbanized area" is a central city or a group of contiguous cities with a population of 50,000 or more people, together with adjacent densely populated areas having a population density of at least 1,000 people per square mile. Because the City is located in an urbanized area, for the purposes of this analysis the Project site is considered an urbanized area.

The City of Elk Grove and the Project site are located in the Sacramento Valley which is mostly composed of flat land with no significant landforms. The visual character of the City of Elk Grove consists of suburban development, including single and multifamily residential units set along wide meandering streets lined with sidewalks; commercial and office uses set in large retail and business centers; smaller strip malls; parks; and public spaces, as well as roadways and other infrastructure. Scattered vacant parcels and open agricultural land is also located in the City. The western and central portions of Elk Grove are more urbanized.

The City of Elk Grove identifies scenic resources that contribute to the overall visual character of the area. The following areas are designated scenic resources by the City of Elk Grove: Stone Lakes National Wildlife Refuge, Cosumnes River Preserve, parks and open space areas, and local lakes, rivers, and creeks. The Project site is located approximately 4.3 miles northeast of the Stone Lakes National Wildlife Refuge and 11 miles north of the Cosumnes River Preserve. There are numerous parks, bodies of water, and open space parcels/areas within a one-mile radius of the Project site; however, none of these scenic resources are visible from the Project site nor is the Project site visible from these resources. The City of Elk Grove does not designate any area within the City as scenic vistas. There are currently no designated scenic corridors within or visible from the City or Project site; however, a portion of State Route 160, approximately 2.3 miles west of the proposed Project site, is an Officially Designated State scenic corridor.

## 4.1.4 Regulatory Setting

### 4.1.4.1 Federal Regulations

No federal policies or regulations pertaining to aesthetics are applicable to the proposed Project.

### 4.1.4.2 State Regulations

**Caltrans Scenic Highway Program.** There are no State-designated scenic highways in the immediate vicinity of the proposed Project (Caltrans 2015).

### 4.1.4.3 Regional and Local Regulations

The Interstate Commerce Commission Termination Act of 1995 (ICCTA) (49 U.S.C.A. §10101 et seq.) abolished the Interstate Commerce Commission and gave the Surface Transportation Board exclusive jurisdiction over: (1) transportation by rail carriers and the remedies provided with respect to rates, classifications, rules (including car service, interchange, and other operating rules), practices, routes, services, and facilities of such carriers; and (2) the construction, acquisition, operation, abandonment, or discontinuance of spur, industrial, team, switching, or side tracks, or facilities. 49 U.S.C. § 10501(b). In short, the ICCTA affords railroads engaged in interstate commerce

considerable flexibility in making necessary improvements and modifications to rail infrastructure, subject to the requirements of the Surface Transportation Board.[1] ICCTA broadly preempts state and local regulation of railroads, and this preemption extends to the construction and operation of rail lines. The SJJPA, a State joint powers agency, and the SJRRC, propose improvements within and outside of the UPRR right-of-way, and consistent with the ICCTA, activities in existing UPRR right-of-way are exempt from local building and zoning codes and other land use ordinances. Project improvements proposed outside of the UPRR right-of-way, however, would be subject to regional and local plans and regulations. Although ICCTA does broadly preempt state and local regulation of railroads, SJJPA and SJRRC intend to obtain local agency permits for construction of facilities that fall outside of the UPRR right-of-way, even though SJRRC has not determined that such permits are legally necessary, and such permits may not be required.

**City of Elk Grove Zoning and Municipal Code.** Municipal Code Title 23 (the Elk Grove Zoning Code) provides development standards that address building mass, setbacks, landscaping, lighting, and signage to achieve an aesthetically pleasing appearance. Lighting is specifically addressed in Chapter 23.56 of the Elk Grove Zoning Code and sets standards to reduce the potential for local light and glare, as well as contributions to skyglow. Section 23.56.030 discusses requirements for shielding of fixtures and levels of illumination, and restrictions on fixture heights and hours of illumination. Municipal Code Section 23.56.040 (2019b) prohibits certain types of lighting, such as neon tubing or band lighting along building structures, searchlights, illumination of entire buildings, roof-mounted lights (except for security purposes with motion detection), and any light that interferes with a traffic signal or other necessary safety or emergency lighting.

Section 23.16.080 establishes an expanded design review process for all development citywide requiring additional site and design consideration beyond conformance with minimum standards of the Zoning Code. The Design Guidelines include design provisions for site planning, architecture, lighting, and landscaping, as well as provisions regarding the preservation of natural features and compatibility with surrounding property. The City strongly encourages project design that incorporates existing natural features of project areas, including but not limited to trees/tree clusters, topography, and creeks. The guidelines encourage the use of landscaping to reduce potential impacts of lighting from parking areas on both the project area and on adjacent vacant land. In addition, the guidelines specify that perimeter landscaping design maximize screening and buffering between adjacent uses.

**Elk Grove General Plan.** The City General Plan contains the following policies and standards pertaining to aesthetics that would be applicable to the proposed Project:

**Policy LU-2-4:** Require new infill development projects to be compatible with the character of surrounding areas and neighborhoods, support increased transit use, promote pedestrian and bicycle mobility, and increase housing diversity.

[1] Altamont Corridor Express (ACE) and Amtrak operate within a right-of-way and on tracks owned by UPRR, which operates interstate freight rail service in the same right-of-way and on the same tracks.

**Policy LU-5-2:** Provide and implement regulations that encourage high-quality signage, ensure that businesses and organizations can effectively communicate through sign displays, promote wayfinding, achieve visually vibrant streetscapes, and control excessive visual clutter.

**Policy LU-5-3:** Reduce the unsightly appearance of overhead and aboveground utilities by requiring the undergrounding of appropriate services within the urban areas of the City.

> **Standard LU-5-3.a**: New utility facilities should be located underground to the extent possible. Facilities to be placed underground should include electrical transformers (where consistent with the guidelines of the electrical utility), water backflow preventers, and similar items.
>
> **Standard LU-5-3.b:** Require that existing overhead utility facilities be undergrounded as a condition of project approval. This shall include electrical service lines under 69 kilovolts (kV). Electrical service lines of 69 kV and higher are encouraged to be undergrounded.

**Policy LU-5-4:** Require high standards of architectural and site design, and apply strong design controls for all development projects, both public and private, for the enhancement and development of community character and for the proper transition between areas with different types of land uses. Design standards shall address new construction and the reuse and remodeling of existing buildings.

> **Standard LU-5-4.a:** Nonglare glass shall be used in all nonresidential buildings to minimize and reduce impacts from glare. Buildings that are allowed to use semi-reflective glass must be oriented so that the reflection of sunlight is minimized. This requirement shall be included in subsequent development applications.

**Policy LU-5-6:** Improve the visual appearance of business areas and districts by applying high standards for architectural design, landscaping, and signs for new development and the reuse or remodeling of existing buildings.

**Policy NR-2-3:** Ensure that trees that function as an important part of the City's or a neighborhood's aesthetic character or as natural habitat on public and private land are retained or replaced to the extent possible during the development of new structures, roadways (public and private, including roadway widening), parks, drainage channels, and other uses and structures.

The Sacramento County General Plan Final EIR identifies scenic views as elements like mountain ranges, valleys, and ridgelines. The General Plan EIR also defines scenic resources as mature oak trees, natural water features, rock outcroppings, and historic buildings. The relatively flat terrain of the proposed Project area inhibits views of distant mountains and valleys. Mature Valley oaks are present within the Project site.

### 4.1.5 Thresholds of Significance

The thresholds for aesthetics impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The proposed Project may be deemed to have a significant impact with respect to aesthetics if it would:

**Threshold 4.1-1:** **Have a substantial adverse effect on a scenic vista.**

**Threshold 4.1-2:** **Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.**

**Threshold 4.1-3:** **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 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.**

**Threshold 4.1-4:** **Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.**

### 4.1.6 Project Impacts

#### 4.1.6.1 Effect on a Scenic Vista

**Threshold 4.1-1: Would the Project have an adverse effect on a scenic vista?**

**No Impact.** The proposed Project would be developed within the City of Elk Grove where the existing visual characteristics of the area consist of an urbanized setting. The northern and southern termini of the proposed Project would be developed adjacent to lands subject to Sacramento County policies. The Project site is currently occupied by a surface parking lot storage area for Laguna Self Storage and UPRR tracks/berms. The topography of the area is generally flat and devoid of unique scenic resources and expansive views of scenic features are not available from within or in the vicinity of the site. According to the *City of Elk Grove General Plan* (2021a), the City has not designated any scenic vistas within the City. Further, where the Project site is adjacent to lands subject to Sacramento County policies, no scenic views or views of scenic resources are available. Therefore, no scenic vistas are visible from the Project site or would be blocked by implementation of the proposed Project.

**No impact** would occur, and no mitigation would be required.

**Level of Significance prior to Mitigation: No Impact.**

**Regulatory Compliance Measures and Mitigation Measures: No regulatory compliance measures nor Project-specific mitigation measures would be required.**

**Level of Significance after Mitigation: Not applicable.**

#### 4.1.6.2 Damage Scenic Resources in a State Scenic Highway

**Threshold 4.1-2: Would the Project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State scenic highway?**

**No Impact.** The Caltrans Scenic Highway Program identifies State Route 160 (approximately 2.3 miles west of the Project site) just north of Cosumnes River Boulevard to the Sacramento/Contra Costa County Line as the closest State-designated scenic highway. Due to intervening topography, distance, existing buildings, and vegetation (i.e., trees) the Project site is not visible from State Route 160. There are no City or County designated Scenic Corridors that cross the Project Site or are near/ adjacent to the Project site. Furthermore, the Project site is not currently occupied by rock outcropping, historic buildings, nor any other scenic resources, as it is occupied by a surface parking lot storage area for Laguna Self Storage and UPRR tracks/berms. There are ornamental trees along the western and northern perimeters of the surface parking lot storage area; however, these trees would more than likely be retained through Project implementation. In the event that existing trees would be removed, they would be replaced as part of the proposed landscaping in the proposed surface parking lot. Overall, implementation of the proposed Project would not substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within view of a State scenic highway. No impact would occur, and no mitigation measures are required.

**Level of Significance prior to Mitigation:** No Impact.

**Regulatory Compliance Measures and Mitigation Measures:** No regulatory compliance measures nor Project-specific mitigation measures would be required.

**Level of Significance after Mitigation:** Not applicable.

#### 4.1.6.3 Conflict with Zoning or Other Regulations Pertaining to Scenic Quality

**Threshold 4.1-3: Would the Project, if located in a 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 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 Measures.** According to the United State Census Bureau (2012), the City of Elk Grove is located within the Sacramento Urbanized Area. As described in *State CEQA Guidelines* Section 15387 and defined by the United States Census Bureau, an "urbanized area" is a central city or a group of contiguous cities with a population of 50,000 or more people, together with adjacent densely populated areas having a population density of at least 1,000 people per square mile. Because the City is in an urbanized area, for the purposes of this analysis, the Project site is considered within an urbanized area. Improvements proposed by SJRRC within the existing UPRR right-of-way are not subject to local or regional plans or regulations. While the proposed Project would be developed adjacent to lands subject to Sacramento County jurisdiction, the proposed Project area is limited to the existing UPRR right-of-way and lands subject

to the City of Elk Grove jurisdiction. The proposed station parking lot and pedestrian bridge would be located on parcels within the jurisdiction of Elk Grove on parcels with a land use and zoning designation of Light Industrial (LI). The proposed station platform would be located within UPRR right-of-way; as such, this portion of the Project would not be subject to Elk Grove's land use or zoning regulations.

**Key View Analysis.** Previously referenced **Figure 4.1-2: Existing Key Views 1 through 4** illustrates each of the four key public vantage points selected for this analysis. Key views were selected to demonstrate existing conditions in the vicinity of the proposed station platform and parking lot area. To determine impacts related to aesthetics, the existing conditions are compared to the station platform rendering provided in **Figure 4.1-3: Simulated Views 1 and 2** and **Figure 4.1-4: Simulated Views 3 and 4**. The station rendering is illustrative of the station platform development that would occur upon Project implementation and is representative of the scale, mass, and proportion of the components associated with the proposed Project.

The following discussion describes the four key views in their existing and post-Project condition in order to analyze impacts associated with Project implementation and to verify that scenic vistas/resources would not be blocked from view for sensitive receptors.

**Key View 1.** Key View 1, in **Figure 4.1-2**, depicts views of the Project site from Dwight Road east toward the parking lot of Laguna Self Storage and the UPRR corridor. Key View 1 represents the view of the Project site as seen by patrons of the commercial buildings and motorists along Dwight Road as one looks east towards the Project site.

*Existing Conditions.* The foreground of this picture shows the edge of Dwight Road, including pedestrian and bicycle facilities (i.e., the sidewalk and bike lane). Dwight Road is not a scenic corridor. The middle-ground of the image shows the existing fence, gate, ornamental trees, and surface parking lot storage area for Laguna Self Storage. The background of this picture shows utility poles and utility lines and the trees of the neighborhood to the east of the UPRR corridor. None of the features in this photograph are visually remarkable or memorable and the visual characteristics of this area are typical of an urbanized area.

*Post-Project Conditions.* Construction of the Project would replace the current Laguna Self Storage parking facility with station parking, elevators, and access ramps. In the foreground would be the vehicle and bus parking lot entrance, site signage, and fencing. Motorists' views of the site would be intermittent as they travel on Dwight Road and would blend with the existing surrounding setting. In the middle-ground, the parking spaces, light standards, and site landscaping would be visible. As depicted on **Figure 4.1-3**, the background of this viewpoint would consist of the proposed station, including steps, elevators, and pedestrian access facilities. Rooflines and trees on the east side of the UPRR corridor would largely remain visible with the exception of residences obstructed by the proposed station.

**Key View 2.** Key View 2, as shown in **Figure 4.1-2**, depicts views of the Project site from the north side of Laguna Boulevard, approximately 370 feet east of the Laguna Boulevard/Dwight Road intersection, looking northeast towards the Project site. Key View 2 represents the views of the Project site as seen from the public right-of-way along Laguna Boulevard.

**Simulated View 1** on Dwight Road looking east toward the proposed Project

**Simulated View 2** Laguna Boulevard just east of Dwight Road looking northeast toward the proposed Project

LSA

FIGURE 4.1-3

*Elk Grove Station*
Simulated Views 1 and 2

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**Simulated View 3** Nicosia Court looking northwest toward the proposed Project

**Simulated View 4** Laguna Boulevard overcrossing looking north toward the proposed Project

LSA

FIGURE 4.1-4

*Elk Grove Station*
Simulated Views 3 and 4

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*Existing Conditions.* The foreground of this picture shows vacant land just north of the Laguna Boulevard right-of-way and shrubbery against the southern end of the Laguna Self Storage facility. Middle-ground views show the storage units associated with Laguna Self Storage and the stormwater holding pond between the UPRR right-of-way and self-storage parcel. Background views at this location show the existing surface parking lot associated with Laguna Self Storage, the UPPR right-of-way occupied by a berm and railroad tracks, utility poles, the commercial building to the north of the surface parking lot of the Laguna Self Storage Facility, and single-family (one- and two story) residential units northeast of the UPRR corridor. None of the features in this photograph are visually remarkable or memorable and the visual characteristics of this area are typical of an urbanized area located adjacent to active railroad tracks.

*Post-Project Conditions.* Construction of the Project would change this key view. As depicted in **Figure 4.1-3**, the foreground and middle-ground would remain visually similar to existing conditions. In the back ground, the proposed station would be visible, with its platform, overhead pedestrian facilities, elevators, and other station facilities. Residential units would still be visible to the west. The pedestrian overcrossing would conflict with the overhead electrical line to the western side of the UPRR right-of-way, and these lines would be relocated by either raising the electrical wires or relocating the wires underground in this location. Overhead electrical lines on the eastern side would remain in place. The western side would also be occupied by the station parking area and landscaped pedestrian facilities.

**Key View 3.** Key View 3, as shown in **Figure 4.1-2**, depicts the Project site within the residential neighborhood to the east side of the UPRR right-of-way looking northwest towards the Project site. Key View 3 represents the view of the Project site from the public right-of-way in the residential neighborhood to the east of the Project site.

*Existing Conditions.* The foreground and middle-ground at this view shows residential units on Nicosia Court. The background at this view shows the tops of ornamental trees and electrical lines/poles. The roofline of the industrial buildings north of the Project site are partially visible in the background. The visual characteristics of this area are typical of a residential neighborhood.

*Post-Project Conditions.* Construction of the Project would change this key view. As depicted in **Figure 4.1-4**, the foreground and middle-ground (residential units) would remain unchanged; however, in the background, the proposed station would be visible, with its platform, overhead pedestrian facilities, elevators, and other station facilities. The pedestrian overcrossing would conflict with the overhead electrical line to the west side of the UPRR right-of-way, and the overhead utility lines would be relocated by either raising the electrical wires or relocating the wires underground in this location. Overhead electrical lines on the east side would remain in place. The station parking area and associated landscaping and pedestrian facilities would be introduced west of the proposed station but would not be visible beyond the fence along the west side of the residential properties and the station facilities.

**Key View 4.** Key View 4, as shown in **Figure 4.1-2**, depicts the Project site from the Laguna Boulevard overcrossing, looking north towards the proposed station platform. Key View 4 represents the view of the Project site from the perspective of motorists on Laguna Boulevard looking north toward the Project site.

*Existing Conditions.* The foreground of this photograph provides views of the unnamed drainage basin on the western side of the UPRR right-of-way, the basalt covered berm occupied by the UPRR track, an unimproved access road to the east of the UPRR right-of-way, and a berm covered with natural vegetation adjacent to the retaining wall separating the UPRR right-of-way from the residential units to the east. Middle-ground views at this location show the existing surface parking storage for Laguna Self Storage surrounded by a perimeter fence to the west of the UPRR right-of-way, electrical poles/lines, an unimproved access road, unnamed drainage ditch, commercial buildings north of the Project site, electrical transmission lines and poles, the retaining wall separating the UPRR right-of-way from the residential units to the east, one- and two-story single family residential units, and ornamental trees. The background at this location provides similar views as the middle-ground; however, more commercial buildings are visible to the west of the UPRR right-of-way and more single-family residential units are visible to the east of the UPRR right-of-way. None of the features in this photograph are visually remarkable or memorable and the visual characteristics of this area typical of an urbanized area located adjacent to active railroad tracks.

*Post-Project Conditions.* Construction of the Project would change this key view as shown in **Figure 4.1-4**. In the foreground, there would be two tracks approaching the station, and the proposed station would be visible, with its platform, overhead pedestrian facilities, elevators, and other station facilities. The pedestrian overcrossing would conflict with the overhead electrical line to the western side of the UPRR right-of-way, and these lines would be relocated by either raising the electrical wires or relocating the wires underground in this location. Overhead electrical lines on the eastern side would remain in place. The station parking area and landscaped pedestrian facilities would be introduced west of the tracks beyond the drainage basin, which would remain in place. Residences east of the UPRR right-of-way would remain visible, as would other industrial uses other than the Laguna Self Storage facility west of the UPRR right-of-way. It is unlikely that the residences or industrial businesses would remain visible in the background.

**Key View Summary.** Key Views 1 through 4 provided above illustrate development that is anticipated to occur with approval of the proposed Project. As shown at each of the key views, there are no visible scenic vistas and therefore none would be blocked with implementation of the proposed Project. The existing visual characteristics of the site, that of a typical urban environment adjacent to railroad right-of-way, would incrementally change with implementation of the proposed Project; however, the visual characteristics of the site would continue to be representative of a typical urban environment where a transportation corridor is located. The components of the proposed Project would be designed consistent with City of Elk Grove policies and design standards to ensure the station structure as well as the supporting parking lot is aesthetically pleasing to neighboring sensitive receptors. Compliance with design guidelines and landscaping guidelines would also ensure the Project is developed consistent with visual characteristics of the surrounding uses. Overall, the analysis presented above does not find that implementation of the proposed Project would substantially affect views of scenic vistas in and around the Project area.

Renderings of the station platform and parking lot associated with the proposed Project are shown in Section 3.0 Project Description in **Figure 3.4-2: Station Parking Lot Design Concept Plan**. The surface parking lot would be developed where the

existing surface parking storage area for Laguna Self Storage is located; as such, the visual characteristics of this area would negligibly change. The station parking lot would include drive aisles, approximately 227 parking stalls, internal sidewalks, bus bays, and interspersed areas of landscaping. Landscaping in the station parking lot area would consist of drought tolerant grasses and shrubbery and would be consistent with landscaping requirements for development on land with a Light Industrial zoning designation. In accordance with the Elk Grove Zoning Code, the station parking lot would have a minimum landscape coverage of 15 percent. CALGreen (California Green Building Standards Code) requires 50 percent of parking areas shaded within 15 years, which could be met through a combination of shade tree plantings and photovoltaic solar canopies. The station parking lot would also include the installation of lighting fixtures/standards for safety and security purposes. The lighting standards set forth by Section 23.56.030, Title 23 of the Elk Grove Municipal Code (2019b) would be applied when designing the lighting for the station parking lot. The station parking lot component of the proposed Project would be similar in appearance to the existing surface parking lot surrounding the commercial building north of the Project site.

On the east side of the station parking lot, a staircase and structure containing an elevator to the pedestrian bridge would be developed. The staircase and elevator structure on the eastern side of the station parking lot as well as the pedestrian bridge would be developed to a maximum height of 42 feet. Section 23.29.020, Title 23 of the Elk Grove Municipal Code identifies 40 feet as the general height limit for uses in light industrial zones (Table 23.29-1); however, Section 23.48.040, Title 23 of the Elk Grove Municipal Code states that "Minor projections, including elevator and mechanical equipment enclosures, may exceed the height limit by fifteen (15' 0") feet, provided they are screened by a parapet or pitched roof." The elevator structure would be developed to a maximum height of 42 feet while a heating, ventilation, and air conditioning unit would occupy the top 2-3 feet of the structure. Because the pedestrian bridge and elevator would be screened, the proposed structures are considered consistent with the zoning designation and allowable height limits. The staircase, elevator structure, and pedestrian bridge would be constructed of landscape-matching colored concrete with non-glare metal railings and shielded light fixtures. Overall, the staircase/elevator structure and pedestrian bridge would be developed to comply with design standards as set forth by the Zoning Code of the Elk Grove Municipal Code.

The stairs/elevator structures developed as part of the station platform would be developed within UPRR right-of-way and therefore compliance with Elk Grove design standards would not be required. However, the SJRRC is committed to designing station platforms that complement the existing visual character of the site through the use of non-reflective materials, consistent with the SJRRC's *Valley Rail Station Design Guidelines* (SJRRC 2021); shielded light fixtures; and privacy screening features to preserve privacy for neighboring residential properties directly to the east. The staircases, elevator structures, and pedestrian platform above the at-grade loading station platform would be developed to a maximum height of 42 feet above grade. At this height, residents in single-family homes to the east of the Project site would have partially obstructed views of the station platform above the retaining wall separating the UPRR right-of-way from the residential parcels. While the proposed station platform structure would be visible from residences adjacent to the UPRR corridor, the proposed station platform would be consistent with the existing character of the rail corridor and would obstruct views of the existing Laguna Self Storage facility and commercial

buildings to the west and would also obstruct views of the proposed parking lot and pedestrian overcrossing.

The visual character and quality of the Project site and surrounding area is low and not highly memorable as the area is composed of urban uses (i.e., railroad corridor, commercial buildings, self-storage business) and no natural geologic formations, topography or remarkable landscaping is present. The most vulnerable sensitive receptors, residences east of the Project site, currently have views of typical urbanized uses adjacent to the UPRR corridor in the City of Elk Grove. Although there would be a negligible change in the visual character and quality of the site compared to existing conditions, impacts could potentially be significant because of the proximity and sensitivity of residences to the east of the proposed station site.

**Level of Significance prior to Mitigation:** Potentially Significant.

**Regulatory Compliance Measures and Mitigation Measures:** The following mitigation measures would be implemented to reduce impacts associated with the change in visual character of the site with implementation of the proposed Project:

**MM AES-1:** **Landscape station parking lot.** The station parking shall be planted with trees and groundcover to improve the visual quality and character of the site, provide shade, and reduce the urban "heat island" effect. Shrubs may also be used if space allows. Trees shall be scattered throughout the parking lot area, rather than planted all in one location. All landscaping shall be designed to ensure passenger safety (e.g., so that security cameras and safety lighting are not obscured) and shall be compliant to the landscaping standards of the City of Elk Grove Municipal Code. In addition, plant palettes shall incorporate drought-tolerant plant species and shall have a strong emphasis on California native plant species that are appropriate for a given site. An irrigation and maintenance program shall be implemented during the plant establishment period, and shall be continued, as needed, to ensure plant survival. The landscaping plan shall maximize the use of planting zones that are water efficient. SJRRC shall provide the landscape plan for the station parking lot to the City of Elk Grove for review and approval prior to construction.

**MM AES-2:** **Apply aesthetic treatments to the components of the station.** SJRRC shall implement an aesthetic design treatment for the elevator structures and staircases on the eastern side of the station parking lot, the pedestrian crossing, and the station platform and loading area. Aesthetic treatments shall be consistent with SJRRC's Valley Rail Station Design Guidelines.

**MM AES-3**: **Apply a screening design feature on the upper station pedestrian-way to screen user views of neighboring residential units.** SJRRC shall include a screening feature (i.e., etched/fogged glass, vegetated screening feature, slatted screening, etc.) on the eastern side of the structure facing the single-family residential units to the east. The screening feature shall be consistently designed with the aesthetic treatments described in Mitigation Measure AES-2. The screening feature shall be implemented in a way that station users' views of neighboring residential properties is reduced.

**Level of Significance after Mitigation:** Less Than Significant. Although the impact is considered less than significant, SJRRC has identified mitigation measures (e.g., landscaping, aesthetic treatments, and screening) to further reduce aesthetics impacts.

#### 4.1.6.4 Create New Glare or Light

**Threshold 4.1-4: Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

**Less than Significant Impact.** As previously discussed, the Project site is in an urbanized area of Elk Grove where light and glare already exist. The portion of the site where the station parking lot would be developed is currently occupied by the surface parking area for Laguna Self Storage. This area is illuminated at night with security lights. The commercial building north of the Project site as well as the surface parking lot serving the building are also illuminated at night for safety and security purposes. The UPRR right-of-way where the proposed station platform would be developed is not illuminated at night, except for some lighting spillover from the residential units to the east.

Most construction activities on the Project site would occur during daylight hours. Any construction-related illumination during evening and nighttime hours would consist of minimum lighting required for safety and security purposes only and would occur only for the duration required for the temporary construction process. If lighting is necessary at the station location during evening or nighttime construction periods, all light standards would be faced toward the west to avoid direct illumination of the residential units east of the UPRR right-of-way. Due to the limited nature of nighttime construction lighting, illumination resulting from construction activities would not substantially impact sensitive receptors, substantially alter the character of off-site areas surrounding the Project site or interfere with the performance of an off-site activity. For these reasons, construction of the proposed Project would not create a new source of light or glare that would adversely affect day or nighttime views in the area. Lighting and glare impacts associated with construction activities would be less than significant.

Once the Project is built and operational, additional lighting and illumination in the area would occur during evening and nighttime hours. The proposed station parking lot would be designed to include light fixtures/standards that would illuminate the parking lot, pedestrian ways, and accessway for the pedestrian bridge. Lighting for these Project components would be designed in compliance with the City of Elk Grove Municipal Code, Chapter 23.56 Lighting (2019b). In accordance with Chapter 23.56 of the Elk Grove Municipal Code, the components of the proposed Project within the jurisdiction of the City would include lighting with full shielding to prevent off-site spillover on to adjacent properties. Lighting for these Project components would also be subject to illumination standards through the Elk Grove Municipal Code, where the station parking lot shall be illuminated with a minimum maintained one foot-candlelight and an average not to exceed four foot-candles of light. Pedestrian walkways (i.e., pedestrian walkways in the station parking lot and on the pedestrian bridge of the proposed Project) shall be illuminated with a minimum maintained one-half foot-candle of light and an average not to exceed two foot-candles of light. Compliance with these lighting standards would ensure that the components of the proposed Project within the jurisdiction of the City would not generate a new source of substantial lighting that would spill over onto neighboring properties.

The proposed station platform would be developed within UPRR right-of-way; therefore, City of Elk Grove lighting standards would not be applicable to the proposed station platform. Lighting would also be needed for the proposed station for security and safety purposes. As discussed in the Valley Rail Station Design Guidelines, lighting should be dark sky compliant and should operate continuously, relying on automatic and manual controls to provide efficient energy use. Section 3.8.2 of the Valley Rail Station Design Guidelines states that "Luminaires should be selected, located, and/or aimed to accomplish their primary purpose while producing a minimum of objectionable glare and/or interference with task accuracy, vehicular traffic, and neighboring areas." Due to the proximity of the residential units east of the Project site, new lighting associated with the proposed station could spill over onto the properties occupied by the residential units; however, proposed lighting would be focused and directional to minimize light spill on the neighboring properties.

**Level of Significance prior to Mitigation:** Less than Significant Impact.

**Regulatory Compliance Measures and Mitigation Measures:** No regulatory compliance or mitigation measures are required.

**Level of Significance after Mitigation:** Not applicable.

## 4.2 AIR QUALITY

This section identifies and describes the baseline conditions for air quality in the Project site and vicinity, the regulatory setting for air quality, identifies potentially significant impacts that may result from Project implementation, and prescribes mitigation measures to reduce the severity of potentially significant impacts.

### 4.2.1 Scoping

SJRRC received 21 comment letters during the public review period of the NOP. The comment letters included the following concerns/comments pertaining to air quality:

- Concerns regarding air pollution in the vicinity of the Project associated with trains and additional vehicles, and the potential to impact nearby residences.
- Comments stating that that the transportation mode shift enabled by the proposed Project would contribute to State of California goals of reducing vehicle miles traveled and GHG emissions.
- Concerns regarding locating a diesel-powered train station in the Elk Grove urban area and the potential to increase TACs and diesel particulate matter.
- Recommendations to require newer technologies and require underground electric for all train proposals.
- A comment that projects that are not consistent with a qualified Climate Action Plan must implement BMPs as identified in the SMAQMD Thresholds Document.

- Comments relating to GHG emissions analysis, including a request that the analysis include an evaluation of project consistency with the City of Elk Grove Climate Action Plan (CAP). In addition, a comment stating that if the analysis demonstrates that project GHG emissions exceed applicable thresholds, emissions should be mitigated using mitigation methods referenced in the SMAQMD CEQA Guide's chapter on GHG Emissions.

- Comments related to the construction analysis, including a comment stating that if the analysis demonstrates that project construction emissions exceed applicable thresholds of significance, emissions should be mitigated using mitigation methods referenced in the SMAQMD CEQA Guide's chapter on Construction-Generated Criteria Air Pollutant and Precursor Emissions. Additionally, all projects are subject to SMAQMD rules and regulations during construction.

- Comments related to the operations analysis, including a comment stating that if the analysis demonstrates that project operational emissions will exceed applicable thresholds of significance for operational criteria pollutants, emissions should be mitigated using applicable mitigation methods referenced in the SMAQMD CEQA Guide's chapter on Operational Air Pollutant and Precursor Emissions.

- Comments related to the health impact analysis, including that the project is surrounded by residential uses, and may expose residents to TAC emissions from train traffic including idling locomotive engines. In addition, it was recommended to use the SMAQMD CEQA Guide's chapter on Toxic Air Contaminants, and Mobile Sources Air Toxics Protocol and Exposure Reduction Measures.

- A request to evaluate potential health impacts that may occur from any commuter buses serving the station.

- A request to include an analysis of health impacts that may result from project emissions, pursuant to the Sierra Club v. County of Fresno case regarding the "Friant Ranch" project ((2018) 6 Cal. 5th 502) decision.

- A recommendation to provide 20 percent electric vehicle ready spaces, in addition to electric vehicle charging stations, onsite.

- A recommendation that multi-modal improvements provide for direct bicycle and pedestrian access from all neighborhoods adjacent to the station area.

- A request that the analysis addresses climate change.

This EIR section considers the comments received during the NOP scoping period specifically pertaining to air quality and provides analysis of the Project impacts. However, as discussed in Section 3.8, Greenhouse Gas Emissions, of the Initial Study prepared for the proposed Project (Appendix A), the proposed Project would result in less-than-significant GHG impacts. Therefore, potential impacts related to GHG emissions and global climate change are not be addressed in the following analysis.

### 4.2.2 Methodology

The proposed Project would result in criteria pollutant emissions from construction and operational sources. Construction activities would generate emissions at the site from off-road construction equipment, and on roadways as a result of construction-related truck hauling, vendor deliveries, and worker commuting. Operational activities would also generate emissions at the Project site from miscellaneous on-site sources, such as mobile sources (e.g., vehicle trips), energy sources (e.g., electricity), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment). This analysis utilizes the California Emissions Estimator Model (CalEEMod) version 2020.4.0 to quantify the criteria pollutant emissions for both construction and operation of the proposed Project. The maximum daily emissions are calculated for the criteria pollutants. The CalEEMod output is contained in Appendix C of this EIR.

In addition, the proposed Project would result in idling trains adjacent to residential receptors which could increase long-term cancer risk in the Project vicinity. In order to assess the potential increase in risk, the United States Environmental Protection Agency (USEPA) AERMOD dispersion model is utilized to determine the pollutant concentrations associated with station train emissions, in conjunction with the California Air Resources Board (CARB) HARP2 model to determine the associated site-specific potential health risk levels to which existing residents would be exposed.

### 4.2.3 Existing Environmental Setting

The following discussion provides an overview of existing air quality conditions in the City of Elk Grove and surrounding region. The ambient air quality standards and the regulatory framework are summarized and climate, air quality conditions, and typical air pollutant types and sources are also described.

#### 4.2.3.1 Air Pollutants and Health Effects

Both State and federal governments have established health-based Ambient Air Quality Standards for six criteria air pollutants: carbon monoxide (CO), ozone ($O_3$), nitrogen dioxide ($NO_2$), sulfur dioxide ($SO_2$), lead (Pb), and suspended particulate matter. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Two criteria pollutants, $O_3$ and $NO_2$, are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as CO, $SO_2$, and Pb are considered local pollutants that tend to accumulate in the air locally.

The primary pollutants of concern in the Project area are $O_3$, CO, and suspended particulate matter. Significance thresholds established by an air district are used to manage total regional and local emissions within an air basin based on the air basin's attainment status for criteria pollutants. These emission thresholds were established for individual development projects that would contribute to regional and local emissions and could adversely affect or delay the air basin's projected attainment target goals for nonattainment criteria pollutants.

Because of the conservative nature of the significance thresholds, and the basin-wide context of individual development project emissions, there is no direct correlation between a single project

and localized air quality-related health effects. One individual project that generates emissions exceeding a threshold does not necessarily result in adverse health effects for residents in the project vicinity. This condition is especially true when the criteria pollutants exceeding thresholds are those with regional effects, such as ozone precursors like nitrogen oxides ($NO_x$) and reactive organic gases (ROG).

Further, by its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to by itself to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, the air districts have considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

Occupants of facilities such as schools, daycare centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to air pollutants because these population groups have increased susceptibility to respiratory disease. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions, compared to commercial and industrial areas, because people generally spend longer periods of time at their residences, with greater associated exposure to ambient air quality conditions. Recreational uses are also considered sensitive compared to commercial and industrial uses due to greater exposure to ambient air quality conditions associated with exercise. These populations are referred to as sensitive receptors.

Air pollutants and their health effects, and other air pollution-related considerations, are summarized in **Table 4.2-A** and are described in more detail below.

### Table 4.2-A: Sources and Health Effects of Air Pollutants

| Pollutants | Sources | Primary Effects |
|---|---|---|
| Ozone ($O_3$) | • Precursor sources: motor vehicles, industrial emissions, and consumer products. | • Respiratory symptoms.<br>• Worsening of lung disease leading to premature death.<br>• Damage to lung tissue.<br>• Crop, forest, and ecosystem damage.<br>• Damage to a variety of materials, including rubber, plastics, fabrics, paints, and metals. |
| Particulate Matter Less than 2.5 Microns in Aerodynamic Diameter ($PM_{2.5}$) | • Cars and trucks (especially diesels).<br>• Fireplaces, woodstoves.<br>• Windblown dust from roadways, agriculture, and construction. | • Premature death.<br>• Hospitalization for worsening of cardiovascular disease.<br>• Hospitalization for respiratory disease.<br>• Asthma-related emergency room visits.<br>• Increased symptoms, increased inhaler usage. |
| Particulate Matter Less than 10 Microns in Aerodynamic Diameter ($PM_{10}$) | • Cars and trucks (especially diesels).<br>• Fireplaces, woodstoves.<br>• Windblown dust from roadways, agriculture, and construction. | • Premature death and hospitalization, primarily for worsening of respiratory disease.<br>• Reduced visibility and material soiling. |

## Table 4.2-A: Sources and Health Effects of Air Pollutants

| Pollutants | Sources | Primary Effects |
|---|---|---|
| Nitrogen Oxides ($NO_x$) | ● Any source that burns fuels such as cars, trucks, construction and farming equipment, and residential heaters and stoves. | ● Lung irritation.<br>● Enhanced allergic responses. |
| Carbon Monoxide (CO) | ● Any source that burns fuels such as cars, trucks, construction and farming equipment, and residential heaters and stoves. | ● Chest pain in patients with heart disease.<br>● Headache.<br>● Light-headedness.<br>● Reduced mental alertness. |
| Sulfur Oxides ($SO_x$) | ● Combustion of sulfur-containing fossil fuels.<br>● Smelting of sulfur-bearing metal ores.<br>● Industrial processes. | ● Worsening of asthma: increased symptoms, increased medication usage, and emergency room visits. |
| Lead (Pb) | ● Contaminated soil. | ● Impaired mental functioning in children.<br>● Learning disabilities in children.<br>● Brain and kidney damage. |
| Toxic Air Contaminants (TACs) | ● Cars and trucks (especially diesels).<br>● Industrial sources, such as chrome platers.<br>● Neighborhood businesses, such as dry cleaners and service stations.<br>● Building materials and products. | ● Cancer.<br>● Reproductive and developmental effects.<br>● Neurological effects. |

Source: California Air Resources Board (2018).

[a] Ozone is not generated directly by these sources. Rather, chemicals emitted by these precursor sources react with sunlight to form ozone in the atmosphere.

**Ozone.** Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving ROG and $NO_x$. The main sources of ROG and $NO_x$, often referred to as ozone precursors, are combustion processes (including combustion in motor vehicle engines) and the evaporation of solvents, paints, and fuels. In the Sacramento Valley Air Basin (SVAB), automobiles are the largest source of ozone precursors. Ozone is referred to as a regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process. Ozone causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

**Carbon Monoxide.** CO is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles. CO transport is limited – it disperses with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations near congested roadways or intersections may reach unhealthful levels that adversely affect local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service (LOS) or with extremely high traffic volumes. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, and fatigue, impair central nervous system function, and induce angina (chest pain) in persons with serious heart disease. Extremely high levels of CO, such as those generated when a vehicle is running in an unventilated garage, can be fatal.

**Particulate Matter.** Particulate matter is a class of air pollutants that consists of heterogeneous solid and liquid airborne particles from manmade and natural sources. Particulate matter is categorized in two size ranges: $PM_{10}$ for particles less than 10 microns in diameter and $PM_{2.5}$ for particles less than

2.5 microns in diameter. In the SVAB, motor vehicles generate the majority of the air basin's particulates, through tailpipe emissions as well as brake pad, tire wear, and entrained road dust. Wood burning in fireplaces and stoves, industrial facilities, and ground-disturbing activities such as construction are other sources of such fine particulates. These fine particulates are small enough to be inhaled into the deepest parts of the human lung and can cause adverse health effects. According to CARB, studies in the United States and elsewhere have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks, and studies of children's health in California have demonstrated that particle pollution may significantly reduce lung function growth in children (CARB 2020). Statewide attainment of particulate matter standards could reduce premature deaths, hospital admissions for cardiovascular and respiratory disease and asthma-related emergency room visits, and episodes of respiratory illness in California.

**Nitrogen Dioxide.** $NO_2$ is a reddish brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of $NO_2$. Aside from its contribution to ozone formation, $NO_2$ also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. $NO_2$ may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. $NO_2$ decreases lung function and may reduce resistance to infection.

**Sulfur Dioxide.** $SO_2$ is a colorless acidic gas with a strong odor. It is produced by the combustion of sulfur-containing fuels such as oil, coal, and diesel. $SO_2$ has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of acute and chronic respiratory disease. $SO_2$ also reduces visibility and the level of sunlight at the ground surface.

**Lead.** Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery factories. Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the USEPA established national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The USEPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of USEPA regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically.

**Toxic Air Contaminants.** In addition to the criteria pollutants discussed above, TACs are another group of pollutants of concern. TACs are injurious in small quantities and are regulated by the USEPA and CARB. Some examples of TACs include benzene, butadiene, formaldehyde, and hydrogen sulfide. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants.

TACs do not have ambient air quality standards, but are regulated by the USEPA, CARB, and the SMAQMD. In 1998, CARB identified particulate matter from diesel-fueled engines as a TAC. CARB

has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines (CARB 2000a). High-volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (e.g., distribution centers and truck stops) were identified as posing the highest risk to adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or industrial facilities, high-volume transit centers, and schools with a high volume of bus traffic. Health risks from TACs are a function of both concentration and duration of exposure.

Unlike TACs emitted from industrial and other stationary sources noted above, most diesel particulate matter is emitted from mobile sources—primarily "off-road" sources such as construction and mining equipment, agricultural equipment, and truck-mounted refrigeration units, as well as trucks and buses traveling on freeways and local roadways.

Although not specifically monitored, recent studies indicate that exposure to diesel particulate matter may contribute significantly to a cancer risk (a risk of approximately 500 to 700 in 1 million) that is greater than all other measured TACs combined (CARB 2000a). The technology for reducing diesel particulate matter emissions from heavy-duty trucks is well established, and both State and federal agencies are moving aggressively to regulate engines and emission control systems to reduce and remediate diesel emissions. CARB anticipated that in 2020, average statewide diesel particulate matter concentrations will decrease by 85 percent from levels in 2000 with full implementation of CARB's Diesel Risk Reduction Plan (CARB 2000a), meaning that the statewide health risk from diesel particulate matter is expected to decrease from 540 to 21.5 cancer cases in 1 million. It is likely that cancer risk in the SVAB from diesel particulate matter will decrease by a similar factor.

**Valley Fever.** Valley Fever is a fungal infection caused by *coccidioides* organisms. It can cause fever, chest pain and coughing, among other signs and symptoms. The *coccidioides* species of fungi that cause Valley Fever are commonly found in the soil in certain areas. These fungi can be stirred into the air by anything that disrupts the soil, such as farming, construction, and wind. The fungi can then be breathed into the lungs and cause Valley Fever, also known as acute coccidioidomycosis. A mild case of Valley Fever usually goes away on its own. In more severe cases of Valley Fever, doctors prescribe antifungal medications that can treat the underlying infection. Valley Fever is not contagious and therefore does not spread from person to person. Most cases (approximately 60 percent) have no symptoms or only very mild flu-like symptoms and do not see a doctor. When symptoms are present, the most common are fatigue, cough, fever, profuse sweating at night, loss of appetite, chest pain, generalized muscle and joint aches particularly of the ankles and knees. There may also be a rash that resembles measles or hives but develops more often as tender red bumps on the shins or forearms.

#### 4.2.3.2 National and State Ambient Air Quality Standards

Both State and federal governments have established health-based Ambient Air Quality Standards for criteria air pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

Both USEPA and CARB have established ambient air quality standards for the following common pollutants: CO, $O_3$, $NO_2$, $SO_2$, Pb, and suspended particulate matter. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. These ambient air quality standards are levels of contaminants that avoid specific adverse health effects associated with each pollutant.

Federal standards include both primary and secondary standards. Primary standards establish limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, and damage to animals, crops, vegetation, and buildings (USEPA 2017). State and federal standards for the criteria air pollutants are listed in **Table 4.2-B**.

## Table 4.2-B: Federal and State Ambient Air Quality Standards

| Pollutant | Averaging Time | California Standards[a] | | Federal Standards[b] | | |
|---|---|---|---|---|---|---|
| | | Concentration[c] | Method[d] | Primary[c,e] | Secondary[c,f] | Method[g] |
| **Ozone** ($O_3$)[h] | 1-Hour | 0.09 ppm (180 µg/m$^3$) | Ultraviolet Photometry | – | Same as Primary Standard | Ultraviolet Photometry |
| | 8-Hour | 0.07 ppm (137 µg/m$^3$) | | 0.070 ppm (137 µg/m$^3$) | | |
| **Respirable Particulate Matter** ($PM_{10}$)[i] | 24-Hour | 50 µg/m$^3$ | Gravimetric or Beta Attenuation | 150 µg/m$^3$ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 20 µg/m$^3$ | | – | | |
| **Fine Particulate Matter** ($PM_{2.5}$)[i] | 24-Hour | – | | 35 µg/m$^3$ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 12 µg/m$^3$ | Gravimetric or Beta Attenuation | 12.0 µg/m$^3$ | | |
| **Carbon Monoxide** (CO) | 8-Hour | 9.0 ppm (10 mg/m$^3$) | Non-Dispersive Infrared Photometry (NDIR) | 9 ppm (10 mg/m$^3$) | – | Non-Dispersive Infrared Photometry (NDIR) |
| | 1-Hour | 20 ppm (23 mg/m$^3$) | | 35 ppm (40 mg/m$^3$) | | |
| | 8-Hour (Lake Tahoe) | 6 ppm (7 mg/m$^3$) | | – | – | |
| **Nitrogen Dioxide** ($NO_2$)[j] | Annual Arithmetic Mean | 0.03 ppm (57 µg/m$^3$) | Gas Phase Chemi-luminescence | 53 ppb (100 µg/m$^3$) | Same as Primary Standard | Gas Phase Chemi-luminescence |
| | 1-Hour | 0.18 ppm (339 µg/m$^3$) | | 100 ppb (188 µg/m$^3$) | – | |
| **Lead** (Pb)[l,m] | 30-Day Average | 1.5 µg/m$^3$ | Atomic Absorption | – | – | High-Volume Sampler and Atomic Absorption |
| | Calendar Quarter | – | | 1.5 µg/m$^3$ (for certain areas)[l] | Same as Primary Standard | |
| | Rolling 3-Month Average [i] | – | | 0.15 µg/m$^3$ | | |
| **Sulfur Dioxide** ($SO_2$)[k] | 24-Hour | 0.04 ppm (105 µg/m3) | Ultraviolet Fluorescence | 0.14 ppm (for certain areas) | – | Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method) |
| | 3-Hour | – | | – | 0.5 ppm (1300 µg/m$^3$) | |
| | 1-Hour | 0.25 ppm (655 µg/m$^3$) | | 75 ppb (196 µg/m$^3$)[k] | – | |
| | Annual Arithmetic Mean | – | | 0.030 ppm (for certain areas)[k] | – | |
| **Visibility-Reducing Particles** [l] | 8-Hour | See footnote [n] | Beta Attenuation and Transmittance through Filter Tape | No Federal Standards | | |
| **Sulfates** | 24-Hour | 25 µg/m$^3$ | Ion Chromatography | | | |
| **Hydrogen Sulfide** | 1-Hour | 0.03 ppm (42 µg/m$^3$) | Ultraviolet Fluorescence | | | |
| **Vinyl Chloride** [j] | 24-Hour | 0.01 ppm (26 µg/m$^3$) | Gas Chromatography | | | |

Source: Ambient Air Quality Standards (California Air Resources Board 2016).

*Table notes continued on the following page*

[a] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter ($PM_{10}$, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For $PM_{10}$, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m$^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact USEPA for further clarification and current national policies.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] Any equivalent measurement method which can be shown to the satisfaction of CARB to give equivalent results at or near the level of the air quality standard may be used.

[e] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[f] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[g] Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.

[h] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[i] On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m$^3$ to 12.0 µg/m$^3$. The existing national 24- hour PM2.5 standards (primary and secondary) were retained at 35 µg/m$^3$, as was the annual secondary standard of 15 µg/m$^3$. The existing 24-hour $PM_{10}$ standards (primary and secondary) of 150 µg/m$^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[j] To attain the 1-hour national standard, the three-year average of the annual 98$^{th}$ percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of ppb. California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[k] On June 2, 2010, a new 1-hour $SO_2$ standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the three-year average of the annual 99$^{th}$ percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 $SO_2$ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[l] CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[m] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m$^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[n] In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

°C = degrees Celsius
CARB = California Air Resources Board
USEPA = United States Environmental Protection Agency
ppb = parts per billion
ppm = parts per million
mg/m$^3$ = milligrams per cubic meter
µg/m$^3$ = micrograms per cubic meter

#### 4.2.3.3 Existing Climate and Air Quality

The following provides a discussion of the local and regional air quality and climate in the Elk Grove area.

**Regional and Local Air Quality.** The Project site is located in the City of Elk Grove, which is part of the SVAB and is under the jurisdiction of the SMAQMD.

Air quality is a function of both local climate and local sources of air pollution. The amount of a given pollutant in the atmosphere is determined by the amount of the pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain, and, for photochemical pollutants, sunshine.

A region's topographic and meteorological features have a direct correlation with air pollution flow and therefore are used to determine the boundary of air basins. Sacramento County is located within the boundaries of the SVAB. The SVAB is bounded by the North Coast Ranges on the west and the Northern Sierra Nevada Mountains on the east. The intervening terrain is flat. Sacramento is often described as a bowl-shaped valley.

The Sacramento Valley has a Mediterranean climate, characterized by hot dry summers and mild rainy winters. During the year the temperature may range from 20 to 115 degrees Fahrenheit with summer highs usually in the 90s and winter lows occasionally below freezing. Average annual rainfall is about 20 inches with snowfall being very rare. The prevailing winds are moderate in strength and vary from moist breezes from the south to dry land flows from the north.

The mountains surrounding the Sacramento Valley create a barrier to airflow, which can trap air pollutants in the valley when meteorological conditions are right, and a temperature inversion exists. Air stagnation in the autumn and early winter occurs when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows pollutants to become concentrated in the air. The surface concentrations of pollutants are highest when these conditions are combined with increased levels of smoke or when temperature inversions trap cool air, fog and pollutants near the ground.

The ozone season (May through October) in the Sacramento Valley is characterized by stagnant morning air or light winds with the Delta sea breeze arriving in the afternoon out of the southwest. Usually, the evening breeze transports the airborne pollutants to the north out of the Sacramento Valley. During about half of the days from July to September, however, a phenomenon called the "Schultz Eddy" prevents this from occurring. Instead of allowing for the prevailing wind patterns to move north carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern and pollutants to circle back southward. This phenomenon's effect exacerbates the pollution levels in the area and increases the likelihood of violating the federal and State air quality standards.

**Attainment Status.** CARB is required to designate areas of the State as attainment, nonattainment, or unclassified for all State standards. An *attainment* designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A *nonattainment* designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An *unclassified* designation signifies that data does not support either an attainment or nonattainment status. The California Clean Air Act (CCAA) divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The USEPA also designates areas as attainment, nonattainment, or classified. The air quality data are also used to monitor progress in attaining air quality standards. **Table 4.2-C** provides a summary of the attainment status for the SVAB with respect to National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS).

## Table 4.2-C: Attainment Status of Criteria Pollutants in the Sacramento Valley Air Basin

| Pollutant | State | Federal |
|---|---|---|
| $O_3$ 1-hour | Nonattainment | No Federal Standard |
| $O_3$ 8-hour | Nonattainment | Nonattainment |
| $PM_{10}$ | Nonattainment | Attainment |
| $PM_{2.5}$ | Attainment | Nonattainment |
| CO | Attainment | Attainment |
| $NO_2$ | Attainment | Attainment/Unclassified |
| $SO_2$ | Attainment | Attainment/Unclassified |
| Pb | Attainment | Attainment |
| All others | Attainment/Unclassified | N/A |

Source: Air Quality Pollutants and Standards (SMAQMD). Website: http://www.airquality.org/air-quality-health/air-quality-pollutants-and-standards (accessed September 2021).

CO = carbon monoxide
N/A = not applicable
$NO_2$ = nitrogen dioxide
$O_3$ = ozone
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
$PM_{10}$ = particulate matter less than 10 microns in size
Pb = lead
$SO_2$ = sulfur dioxide

**Air Quality Monitoring Results.** Air quality monitoring stations are located throughout the nation and maintained by the local air pollution control district and State air quality regulating agencies. Ambient air data collected at permanent monitoring stations are used by the USEPA to identify regions as attainment or nonattainment depending on whether the regions met the requirements stated in the primary NAAQS. Attainment areas are required to maintain their status through moderate, yet effective air quality maintenance plans. Nonattainment areas are imposed with additional restrictions as required by the USEPA. In addition, different classifications of attainment such as marginal, moderate, serious, severe, and extreme are used to classify each air basin in the State on a pollutant-by-pollutant basis. Different classifications have different mandated attainment dates and are used as guidelines to create air quality management strategies to improve air quality and comply with the NAAQS by the attainment date. A region is determined to be unclassified when the data collected from the air quality monitoring stations do not support a designation of attainment or nonattainment, due to lack of information, or a conclusion cannot be made with the available data.

Pollutant monitoring results for the years 2018 to 2020 at the Elk Grove ambient air quality monitoring station (the closest monitoring station to the Project site), shown in **Table 4.2-D**, indicate that air quality near the Project site has generally been good.

## Table 4.2-D: Ambient Air Quality at the Elk Grove Monitoring Station

| Pollutant | Standard | 2018 | 2019 | 2020 |
|---|---|---|---|---|
| **Carbon Monoxide (CO) [2]** | | | | |
| Maximum 1-hour concentration (ppm) | | 3.2 | 1.4 | 4.3 |
| Number of days exceeded: | State: > 20 ppm | 0 | 0 | 0 |
| | Federal: > 35 ppm | 0 | 0 | 0 |
| Maximum 8-hour concentration (ppm) | | 2.4 | 1.3 | 1.6 |
| Number of days exceeded: | State: > 9 ppm | 0 | 0 | 0 |
| | Federal: > 9 ppm | 0 | 0 | 0 |
| **Ozone ($O_3$)** | | | | |
| Maximum 1-hour concentration (ppm) | | 0.096 | 0.103 | 0.111 |
| Number of days exceeded: | State: > 0.09 ppm | 1 | 2 | 1 |
| Maximum 8-hour concentration (ppm) | | 0.082 | 0.078 | 0.082 |
| Number of days exceeded: | State: > 0.07 ppm | 2 | 6 | 2 |
| | Federal: > 0.07 ppm | 2 | 4 | 2 |
| **Coarse Particulates ($PM_{10}$) [1]** | | | | |
| Maximum 24-hour concentration (µg/m$^3$) | | 212.0 | 55.0 | 203.0 |
| Number of days exceeded: | State: > 50 µg/m$^3$ | 4 | 1 | 10 |
| | Federal: > 150 µg/m$^3$ | 1 | 0 | 1 |
| Annual arithmetic average concentration (µg/m$^3$) | | 27.4 | 18.4 | 33.2 |
| Exceeded for the year: | State: > 20 µg/m$^3$ | Yes | No | Yes |
| | Federal: > 50 µg/m$^3$ | No | No | No |
| **Fine Particulates ($PM_{2.5}$)** | | | | |
| Maximum 24-hour concentration (µg/m$^3$) | | 229.7 | 34.9 | 148.5 |
| Number of days exceeded: | Federal: > 35 µg/m$^3$ | ND | ND | ND |
| Annual arithmetic average concentration (µg/m$^3$) | | ND | 5.9 | 11.0 |
| Exceeded for the year: | State: > 12 µg/m$^3$ | ND | No | No |
| | Federal: > 12 µg/m$^3$ | ND | No | No |
| **Nitrogen Dioxide ($NO_2$)** | | | | |
| Maximum 1-hour concentration (ppm) | | 0.033 | 0.059 | 0.021 |
| Number of days exceeded: | State: > 0.250 ppm | 0 | 0 | 0 |
| Annual arithmetic average concentration (ppm) | | 0.004 | 0.003 | 0.003 |
| Exceeded for the year: | Federal: > 0.053 ppm | No | No | No |
| **Sulfur Dioxide ($SO_2$) [3]** | | | | |
| Maximum 1-hour concentration (ppm) | | 0.004 | 0.004 | 0.009 |
| Number of days exceeded: | State: > 0.25 ppm | 0 | 0 | 0 |
| Maximum 3-hour concentration (ppm) | | ND | ND | ND |
| Number of days exceeded: | Federal: > 0.50 ppm | ND | ND | ND |
| Maximum 24-hour concentration (ppm) | | 0.001 | 0.001 | 0.0002 |
| Number of days exceeded: | State: > 0.04 ppm | 0 | 0 | 0 |
| | Federal: > 0.14 ppm | 0 | 0 | 0 |
| Annual arithmetic average concentration (ppm) | | 0.0004 | 0.0004 | 0.0005 |
| Exceeded for the year: | Federal: > 0.030 ppm | No | No | No |

Source: CARB and USEPA. 2021.

[1] Data from the 3847 Branch Center Road, Sacramento monitoring site.

[2] Data from the 100 Bercut Drive, Sacramento monitoring site.

[3] Data from the 2701 Avalon Drive, Arden-Arcade monitoring site.

µg/m$^3$ = micrograms per cubic meter

ND = No data (there was insufficient [or no] data to determine the value)

ppm = parts per million

As indicated in the monitoring results, the State $PM_{10}$ standards were exceeded four times in 2018, once in 2019, and 10 times in 2020. The federal $PM_{10}$ standard had one exceedance in 2018, none in 2019, and one in 2020. $PM_{2.5}$ levels exceeded the federal standard in 2018 and in 2020. The State 1-hour $O_3$ was exceeded once in 2018, twice in 2019, and once in 2020. The State 8-hour $O_3$ standards were exceeded twice in 2018, six times in 2019, and twice in 2020. The federal 8-hour ozone standards were exceeded twice in 2018, four times in 2019, and twice in 2020. The CO, $SO_2$, and $NO_2$ standards were not exceeded in this area during the 3-year period.

### 4.2.4 Regulatory Setting

USEPA and CARB regulate direct emissions from motor vehicles. SMAQMD is the regional agency primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as monitoring ambient pollutant concentrations.

#### 4.2.4.1 Federal Regulations

At the federal level, USEPA has been charged with implementing national air quality programs. USEPA air quality mandates are drawn primarily from the Federal Clean Air Act (FCAA), which was enacted in 1963. The FCAA was amended in 1970, 1977, and 1990.

The FCAA required USEPA to establish primary and secondary NAAQS and required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The FCAA Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. USEPA has responsibility to review all state SIPs to determine conformity with the mandates of the FCAA and determine if implementation will achieve air quality goals. If the USEPA determines a SIP to be inadequate, a Federal Implementation Plan may be prepared for the nonattainment area, which imposes additional control measures. Failure to submit an approvable SIP or to implement the plan within the mandated timeframe may result in sanctions on transportation funding and stationary air pollution sources in the air basin.

The USEPA is also required to develop National Emission Standards for Hazardous Air Pollutants, which are defined as those which may reasonably be anticipated to result in increased deaths or serious illness, and which are not already regulated. An independent science advisory board reviews the health and exposure analyses conducted by the USEPA on suspected hazardous pollutants prior to regulatory development.

#### 4.2.4.2 State Regulations

CARB is the agency responsible for the coordination and oversight of State and local air pollution control programs in California and for implementing the CCAA, adopted in 1988. The CCAA requires that all air districts in the State achieve and maintain the CAAQS by the earliest practical date. The CCAA specifies that districts should focus on reducing the emissions from transportation and air-wide emission sources, and provides districts with the authority to regulate indirect sources.

CARB is also primarily responsible for developing and implementing air pollution control plans to achieve and maintain the NAAQS. CARB is primarily responsible for statewide pollution sources and produces a major part of the SIP. Local air districts provide additional strategies for sources under their jurisdiction. CARB combines this data and submits the completed SIP to USEPA.

Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control and air quality management districts), establishing CAAQS (which are more stringent than the NAAQS), determining and updating area designations and maps, and setting emissions standards for mobile sources, consumer products, small utility engines, and off-road vehicles. CARB's Diesel Risk Reduction Plan is intended to substantially reduce diesel particulate matter emissions and associated health risks through introduction of ultra-low-sulfur diesel fuel – a step already implemented – and cleaner-burning diesel engines (CARB 2000b).

Because of the robust evidence relating proximity to roadways and a range of non-cancer and cancer health effects, CARB also created guidance for avoiding air quality conflicts in land use planning in its Air Quality and Land Use Handbook: A Community Health Perspective (CalEPA and CARB 2005). In its guidance, CARB advises that new sensitive uses (e.g., residences, schools, day care centers, playgrounds, and hospitals) not be located within 500 feet of a freeway or urban roads carrying 100,000 vehicles per day, or within 1,000 feet of a distribution center (warehouse) that accommodates more than 100 trucks or more than 90 refrigerator trucks per day.

CARB guidance suggests that the use of these guidelines be customized for individual land use decisions, and take into account the context of development projects. The Air Quality and Land Use Handbook specifically states that these recommendations are advisory and acknowledges that land use agencies must balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

#### 4.2.4.3 Regional Regulations

**Sacramento Metropolitan Air Quality Management District.** SMAQMD has specific air quality-related planning documents, rules, and regulations. This section summarizes the local planning documents and regulations that may be applicable to the proposed Project as administered by SMAQMD with CARB oversight.

The following outlines several attainment plans adopted by SMAQMD to achieve and maintain State and federal air quality standards.

> ***Redesignation Substitution for the 1979 Ozone Standard.*** SMAQMD prepared a Redesignation Substitution (RS) Request. This request demonstrated that the Sacramento Federal Ozone Nonattainment Area (SFNA) met USEPA's requirements, based on ambient air quality monitoring to be redesignated as attainment for the revoked 1979 1-hour NAAQS of 124 parts per billion (ppb). The RS Request was approved by SMAQMD on September 28, 2017 and has been forwarded to USEPA by CARB. Once approved by USEPA, this RS Request will redesignate the SFNA to attainment and remove the previous Clean Air Act obligations associated with that standard.

***Attainment Plan for the 2008 Ozone NAAQS.*** The Sacramento region is classified as a severe-15 nonattainment area for the 2008 NAAQS. SMAQMD, along with the other air districts which comprise the SFNA, developed a plan to demonstrate attainment of the 2008 8-hour NAAQS of 75 ppb by an attainment year of 2024. This plan was approved by the SMAQMD on August 24, 2017, and the four other air districts that comprise the SFNA (Yolo-Solano Air Quality Management District, Feather River Air Quality Management District, Placer County Air Pollution Control District, and El Dorado County Air Quality Management District). CARB approved the Plan on November 16, 2017. The Plan will be forwarded to the USEPA.

***$PM_{2.5}$ Maintenance Plan and Redesignation Request.*** The Sacramento region was classified as attainment for the 2012 annual average $PM_{2.5}$ NAAQS of 12 µg/$m^3$, and classified as nonattainment in 2009 for the 2006 24-hour $PM_{2.5}$ NAAQS of 35µg/$m^3$. The region prepared the $PM_{2.5}$ Maintenance Plan and Redesignation Request to address how the region attained and would continue to attain the 24-hour $PM_{2.5}$ standard. The region attained the standard based on 2009 to 2011 monitoring data, but postponed the submittal of the plan because of high concentrations in 2012 that caused exceedances.

***$PM_{10}$ Implementation/Maintenance Plan and Redesignation Request for Sacramento County.*** The Sacramento region was classified as attainment for the 1997 $PM_{10}$ 24-hour NAAQS of 150 µg/$m^3$. In October 2010, the SMAQMD prepared the $PM_{10}$ Implementation /Maintenance Plan and Redesignation Request for Sacramento County. The USEPA approved the $PM_{10}$ Plan, which allowed USEPA to proceed with the redesignation of Sacramento County as attainment for the $PM_{10}$ NAAQS. The approval of the first Maintenance Plan showed maintenance from 2013 through 2023.

***1991 Air Quality Attainment Plan (and subsequent Triennial Assessments).*** The CCAA requires that by the end of 1994 and once every three years thereafter, districts are to assess their progress toward attaining state air quality standards. The triennial assessment reports the level of air quality improvement and the amounts of emission reductions achieved from control measures for the preceding three-year period. The most current update to this report by SMAQMD is the 2015 Triennial Report and Progress Plan.

The rules and regulations include procedures and requirements to control the emission of pollutants and to prevent adverse impacts. All projects within SMAQMD's jurisdictional area are subject to SMAQMD rules and regulations in effect at the time of construction. Specific SMAQMD rules that could be applicable to the proposed Project may include, but are not limited to, the following:

***Rule 201: General Permit Requirements.*** Any project that includes the use of equipment capable of releasing emissions to the atmosphere may be required to obtain permit(s) from SMAQMD before equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact SMAQMD early to determine whether a permit is required and to begin the permit application process. Portable construction equipment (e.g., generators, compressors, pile drivers, lighting equipment) with an internal combustion engine greater than 50 horsepower must have a SMAQMD permit or CARB portable-equipment registration.

***Rule 402: Nuisance.*** A developer and proposed project cannot emit any quantities of air contaminants or other materials that would cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public; or that would endanger the comfort, repose, health, or safety of any persons or the public; or that would cause or have natural tendency to cause injury or damage to business or property.

***Rule 403: Fugitive Dust.*** The developer or contractor is required to control dust emissions from earthmoving activities or any other construction activity to prevent airborne dust from leaving the project site.

***Rule 442: Architectural Coatings.*** The developer or contractor is required to use coatings that comply with the content limits for VOCs specified in the rule.

***Rule 453: Cutback and Emulsified Asphalt Paving Materials.*** The developer or contractor is required to use asphalt paving materials that comply with the VOC content limits specified in the rule.

In addition, SMAQMD recommends that all construction projects include Basic Construction Emission Control Practices, as outlined in the SMAQMD CEQA Guide (SMAQMD 2021), and that any projects with construction mitigation requirements must reduce emissions from off-road equipment. If modeled construction-generated emissions for a project are not reduced to SMAQMD's threshold of significance by application of these standard construction mitigation measures, then a mitigation fee may be assessed to achieve the necessary mitigation.

**Sacramento Area Council of Governments.** The Sacramento Area Council of Governments (SACOG) serves as the metropolitan planning organization (MPO) for the Sacramento region, developing a regional Metropolitan Transportation Plan (MTP) and Sustainable Communities Strategy (SCS) in coordination with each of the local 28 member cities and counties. SACOG plays a central role in transportation infrastructure planning for the region, while also serving as a forum for the study, planning, and resolution of other planning issues facing the local member governments. The most recent 2020 MTP/SCS for the SACOG region was adopted in November 2019. The 2020 MTP/SCS lays out a plan that links land use, air quality, and transportation needs.

#### 4.2.4.4 Local Regulations

Project improvements within the existing Union Pacific Railroad (UPRR) right-of-way are exempt from City of Elk Grove regulations and policies. However, project components located outside the UPRR right-of-way (surface parking lot and pedestrian overcrossing) would be subject to City of Elk Grove regulations and policies. The City of Elk Grove addresses air quality in the Community and Resource Protection Element of the General Plan (City of Elk Grove 2021a). The Community and Resource Protection Element contains policies and standards that work to improve air quality. The following policies and standards are applicable to the proposed Project.

- **Policy NR-4-1:** Require all new development projects which have the potential to result in substantial air quality impacts to incorporate design, and/or operational features that result in a reduction in emissions equal to 15 percent compared to an "unmitigated baseline project." An

unmitigated baseline project is a development project which is built and/or operated without the implementation of trip reduction, energy conservation, or similar features, including any such features which may be required by the Zoning Code or other applicable codes.

  - **Standard-4-1a:** As part of the environmental review of projects that are not exempt, the City shall identify the air quality impacts of development proposals to avoid significant adverse impacts and require appropriate mitigation measures to the extent feasible and appropriate, potentially including—in the case of projects which may conflict with applicable air quality plans—emission reductions in addition to those required by Policy NR-4-1.

- **Policy NR-4-2:** Minimize air pollutant emissions from all City facilities and operations (including in-house and contracted) to the extent feasible and consistent with the City's need to provide a high level of public service.

- **Policy NR-4-3:** Implement and support programs that reduce mobile source emissions.

- **Policy NR-4-4:** Promote pedestrian/bicycle access and circulation to encourage residents to use alternative modes of transportation in order to minimize direct and indirect emissions of air contaminants.

- **Policy NR-4-5:** Emphasize demand management strategies that seek to reduce single-occupant vehicle use in order to achieve State and federal air quality plan objectives.

- **Policy NR-4-6:** Offer a public transit system that is an attractive alternative to the use of private motor vehicles.

- **Policy NR-4-8:** Require that development projects incorporate best management practices during construction activities to reduce emissions of criteria pollutants.

  - **Standard NR-4-8.a:** Require all future projects with construction emissions to incorporate the Sacramento Metropolitan Air Quality Management District's (SMAQMD) Basic Construction Emission Control Practices as identified in the most current version of the SMAQMD CEQA Guide in effect at the time of construction.

  - **Standard NR-4-8.b:** All projects with construction emissions exceeding the SMAQMD ozone precursors thresholds shall implement enhanced exhaust control practices as identified in the most current version of the SMAQMD CEQA Guide in effect at the time of construction.

  - **Standard NR-4-8.c:** All projects with construction emissions exceeding the SMAQMD fugitive particulate matter (PM) thresholds shall implement enhanced fugitive PM dust control practices as identified in the most current version of the SMAQMD CEQA Guide in effect at the time of construction.

  - **Standard NR-4-8.d:** For projects exceeding the SMAQMD NOx and PM construction emissions thresholds that cannot be mitigated to less than significant with implementation

of Standards NR-4-8.a, NR- 4-8.b, and NR-4-8.c, the project shall pay a mitigation fee into the SMAQMD's off-site mitigation program.

### 4.2.5 Thresholds of Significance

The thresholds for Air Quality impacts used in this analysis are consistent with Appendix G of the State CEQA Guidelines. The proposed Project may be deemed to have a significant impact with respect to Air Quality if it would:

**Threshold 4.2-1:** **Conflict with or obstruct implementation of the applicable air quality plan.**

**Threshold 4.2-2:** **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.**

**Threshold 4.2-3:** **Expose sensitive receptors to substantial pollutant concentrations.**

**Threshold 4.2-4:** **Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.**

As discussed in Section 3.3, Air Quality, of the Initial Study prepared for the proposed Project (Appendix A), the proposed Project would result in less-than-significant construction and operation odor impacts. Therefore, potential impacts related to odors are not be addressed in the following analysis.

### 4.2.6 Project Impacts

#### 4.2.6.1 Air Quality Plan Consistency

**Threshold 4.2-1: Would the Project conflict with or obstruct implementation of the applicable air quality plan?**

**Less than Significant Impact.** An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of the air quality plan is to bring the area into compliance with the requirements of the federal and State air quality standards. To bring the SVAB into compliance, SMAQMD has developed the RS Request for the 1979 1-hour Ozone NAAQS for the SFNA, the Attainment Plan for the 2008 Ozone NAAQS, the $PM_{2.5}$ Maintenance Plan and Redesignation Request, the $PM_{10}$ Implementation/ Maintenance Plan and Redesignation Request for Sacramento County, and the 1991 Air Quality Attainment Plan (and subsequent Triennial Assessments).

The proposed Project was assessed to determine if impacts associated with implementation of the proposed Project would conflict with or obstruct the implementation of the applicable attainment plan. Based on the SMAQMD CEQA Guide, by exceeding the SMAQMD's mass emission thresholds for operational emissions of ROG, $NO_x$, $PM_{10}$ or $PM_{2.5}$, a project would be considered to conflict with or obstruct implementation of SMAQMD air quality planning efforts.

As discussed below, construction of the proposed Project would not result in the generation of criteria air pollutants that would exceed SMAQMD thresholds of significance. Implementation of **Mitigation Measure AIR-1** would further reduce construction dust impacts. Operational emissions associated with the proposed Project would also not exceed SMAQMD established significance thresholds for ROG, $NO_x$, $PM_{10}$, or $PM_{2.5}$ emissions. Therefore, the proposed Project would not conflict with or obstruct implementation of SMAQMD air quality plans. In addition, the proposed Project would provide expanded transit service in the City of Elk Grove to communities outside of the City which in turn would reduce automobile travel and vehicle miles traveled (VMT), consistent with the objectives of the SMAQMD air quality plans.

In addition, because the proposed Project could promote indirect regional growth as a result of improved and expanded access to transit services, this analysis also considers whether the proposed Project would result in unanticipated growth in the region that could result in increased indirect criteria air pollutant emissions not considered in the drafting of the applicable air quality plans, regional transportation plans, and sustainable communities strategies.

As detailed in Section 5.4.11, Population and Housing of this EIR), it is not anticipated that construction of the proposed Project would cause substantial population growth or a substantial increase in housing demand in the region. Transit stations are more likely to increase the attractiveness of developing the surrounding area if local land use policies and the character of the surrounding area are conducive to such development. The new station platform would provide accessibility, proximity to transit services, and may be an attractive benefit consistent with intensified development. The proposed station would be served by Sacramento Regional Transit routes along Laguna Boulevard and would provide connectivity between transit service and the proposed station. Existing residential development is east and south of the proposed station in the City of Elk Grove. There are limited undeveloped parcels surrounded by either industrial uses or residential uses in the Project vicinity. Therefore, the proposed station would not result in new land uses or cause the redistribution or intensification of planned land uses that could induce unplanned growth. Therefore, the proposed Project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be **less than significant,** and no mitigation measures would be required.

**Level of Significance prior to Mitigation:** Less than Significant Impact.

**Regulatory Compliance Measures and Mitigation Measures:** No regulatory compliance measures or mitigation measures would be required.

**Level of Significance after Mitigation:** Less than Significant Impact.

#### 4.2.6.2 Cumulatively Considerable Net Increases of Criteria Pollutants

**Threshold 4.2-2: Would the project 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 with Mitigation Incorporated.** The SVAB is designated as non-attainment for $O_3$ and $PM_{2.5}$ for federal standards and non-attainment for $O_3$ and $PM_{10}$ for State standards. The SMAQMD's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, the SMAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is unnecessary. The following analysis assesses the potential Project-level construction- and operation-related air quality impacts.

***Short-Term Construction Emissions***

During construction of the proposed Project, short-term degradation of air quality may occur due to the release of particulate matter emissions (e.g., fugitive dust) generated by demolition, grading, hauling, and other activities. Emissions from construction equipment are also anticipated and would include CO, $NO_x$, ROG, directly-emitted particulate matter ($PM_{2.5}$ and $PM_{10}$), and TACs such as diesel exhaust particulate matter.

Site preparation and Project construction would involve site preparation, grading, paving, building, and architectural coating activities. Construction-related effects on air quality from the proposed Project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Vehicles leaving the site could deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. $PM_{10}$ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. $PM_{10}$ emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. SMAQMD has established standard measures for reducing fugitive dust emissions ($PM_{10}$). With the implementation of these Basic Construction Emission Control Practices (Best Management Practices [BMPs]), fugitive dust emissions from construction activities would not result in adverse air quality impacts.

In addition to dust-related $PM_{10}$ emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, $SO_2$, $NO_x$, ROGs and some soot particulate ($PM_{2.5}$ and $PM_{10}$) in exhaust emissions. If construction activities were to increase traffic congestion in the

Project area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the proposed Project using CalEEMod, consistent with SMAQMD recommendations. As stated in Chapter 3.0, Project Description, construction of the proposed Project is anticipated to occur over a 14-month duration. The proposed station is anticipated to be completed in 14 months, while the proposed siding and relocated UPRR track is anticipated to be completed in 8 months. The construction of the proposed station platform and proposed siding and relocated UPRR track is anticipated to occur in parallel. Other construction details are not yet known; therefore, default assumptions (e.g., construction equipment and worker and truck trips) from CalEEMod were used. This analysis assumes the use of Tier 2 construction equipment. Construction-related emissions are presented in **Table 4.2-E**. CalEEMod output sheets are included in Appendix C.

## Table 4.2-E: Project Construction Emissions

| Project Construction | ROG | $NO_x$ | CO | $SO_x$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| **Pounds Per Day** | | | | | | |
| Maximum Daily Emissions | 14.2 | 51.3 | 39.5 | 0.1 | 9.9 | 5.5 |
| SMAQMD Thresholds | N/A | 85.0 | N/A | N/A | 80.0 with BMPs | 82.0 with BMPs |
| **Exceed Threshold?** | **No** | **No** | **N/A** | **N/A** | **No** | **No** |
| **Tons Per Year** | | | | | | |
| Annual Emissions | 0.4 | 4.0 | 3.5 | <0.1 | 0.8 | 0.3 |
| SMAQMD Thresholds | N/A | N/A | N/A | N/A | 14.6 with BMPs | 15.0 with BMPs |
| **Exceed Threshold?** | **N/A** | **N/A** | **N/A** | **N/A** | **No** | **No** |

Source: LSA (October 2021)
BMP = Best Management Practices
CO = carbon monoxide
$NO_X$ = nitrogen oxides
$PM_{10}$ = particulate matter less than 10 microns in aerodynamic diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in aerodynamic diameter
ROG = reactive organic gases
SMAQMD = Sacramento Metropolitan Air Quality Management District
$SO_x$ = sulfur oxides

As shown in **Table 4.2-E**, construction emissions would be below SMAQMD thresholds. In order to reduce construction $PM_{2.5}$ and $PM_{10}$ impacts to a less-than-significant level, SMAQMD requires implementation of SMAQMD BMPs. Therefore, **Mitigation Measure AIR-1**, which requires implementation of BMPs during Project construction and would reduce construction-related air quality impacts of $PM_{10}$ and $PM_{2.5}$ fugitive dust emissions, consistent with SMAQMD requirements, would be required. With implementation of Mitigation Measure AIR-1, construction of the proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project is nonattainment under applicable federal or State ambient air quality standards. Impacts would be **less than significant with mitigation**.

***Long-Term Operational Emissions***

Long-term air pollutant emission impacts that would result from the proposed Project are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment).

$PM_{10}$ emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of $PM_{10}$ occurs when vehicle tires pulverize small rocks and pavement, and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other PM emission processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles.

Energy source emissions typically result from activities for which electricity is used. The quantity of emissions is the product of usage intensity (i.e., the amount of electricity) and the emission factor of the fuel source. The emission factor is determined by the fuel source, with cleaner energy sources, like renewable energy, producing fewer emissions than conventional sources. Energy source emissions generated by the proposed Project would primarily be associated with lighting.

Typically, area source emissions consist of direct sources of air emissions located at the Project site, including architectural coatings and the use of landscape maintenance equipment. Area source emissions generated by the Project would include emissions from the use of landscaping equipment and the use of consumer products.

Long-term operational emissions associated with the proposed Project were calculated using CalEEMod. Trip generation rates used in CalEEMod for the Project were based on the Project's trip generation estimates, which assume the proposed Project would typically generate approximately 880 average daily trips (Fehr & Peers 2021). When Project-specific data were not available, default assumptions from CalEEMod were used to estimate Project emissions. Model results are shown in **Table 4.2-F**. CalEEMod output sheets are included in Appendix C.

## Table 4.2-F: Project Operation Emissions

| Project Operation | ROG | $NO_x$ | CO | $SO_x$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| **Pounds Per Day** | | | | | | |
| Area Source Emissions | 0.7 | <0.1 | <0.1 | 0.0 | <0.1 | <0.1 |
| Energy Source Emissions | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Mobile Source Emissions | 2.4 | 2.1 | 15.6 | <0.1 | 2.9 | 0.8 |
| **Total Emissions** | **3.1** | **2.1** | **15.6** | **<0.1** | **2.9** | **0.8** |
| SMAQMD Thresholds | 65.0 | 65.0 | N/A | N/A | 80.0 with BMPs | 82.0 with BMPs |
| **Exceed Threshold?** | **No** | **No** | **N/A** | **N/A** | **No** | **No** |
| **Tons Per Year** | | | | | | |
| Area Source Emissions | 0.1 | <0.1 | <0.1 | 0.0 | 0.0 | 0.0 |
| Energy Source Emissions | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Mobile Source Emissions | 0.3 | 0.4 | 2.6 | <0.1 | 0.5 | 0.1 |
| **Total Emissions** | **0.4** | **0.4** | **2.6** | **<0.1** | **0.5** | **0.1** |
| SMAQMD Thresholds | N/A | N/A | N/A | N/A | 14.6 with BMPs | 15.0 with BMPs |
| **Exceed Threshold?** | **N/A** | **N/A** | **N/A** | **N/A** | **No** | **No** |

Source: LSA (October 2021)
BMP = Best Management Practices
CO = carbon monoxide
$NO_X$ = nitrogen oxides
$PM_{10}$ = particulate matter less than 10 microns in aerodynamic diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in aerodynamic diameter
ROG = reactive organic gases
SMAQMD = Sacramento Metropolitan Air Quality Management District
$SO_x$ = sulfur oxides

The primary emissions associated with the Project are regional in nature, meaning that air pollutants are rapidly dispersed on release or, in the case of vehicle emissions associated with the Project, emissions are released in other areas of the SVAB. The daily and annual emissions associated with Project operational trip generation, energy, and area sources are identified in Table 4.2-E. The results shown in Table 4.2-E indicate the Project would not exceed the significance criteria for ROG, $NO_x$, $PM_{10}$ or $PM_{2.5}$ emissions. Therefore, operation of the proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project is nonattainment under applicable federal or State ambient air quality standards. Impacts would be **less than significant,** and no mitigation measures would be required.

### *Localized CO Emissions*

Vehicular trips associated with the proposed Project would contribute to congestion at intersections and along roadway segments in the Project vicinity. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the proposed Project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited; under normal meteorological conditions, CO disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital

patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of Project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate Project vicinity are not available. Ambient CO levels monitored at the ambient air quality monitoring station nearest the Project site showed a highest recorded 1-hour concentration of 3.2 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 2.4 ppm (the State standard is 9 ppm) during the past 3 years (Table 4.2-D). The highest CO concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

The proposed Project would generate 880 average daily trips. However, the proposed Project would provide expanded transit service in the City of Elk Grove to communities outside of the City which in turn would reduce automobile travel and VMT. Therefore, it is assumed that the addition of the proposed Project traffic would not create any significant adverse impacts to nearby intersections.

Given the extremely low level of CO concentrations in the Project area, and lack of traffic impacts at any intersections, Project-related vehicles are not expected to result in the CO concentrations exceeding the State or federal CO standards, and therefore the Project would not result in a significant contribution to elevated CO concentrations. Because no CO hot spots would occur, there would be no Project-related impacts on CO concentrations. Impacts would be **less than significant,** and no mitigation measures would be required.

**Level of Significance prior to Mitigation:** Potentially Significant Impact.

**Regulatory Compliance Measures and Mitigation Measures:**

**MM AIR-1:** **Application of SMAQMD Basic Construction Emission Control Practices.** Consistent with SMAQMD Basic Construction Emission Control Practices (Best Management Practices [BMPs]), the following controls shall be included as specifications for the proposed Project and implemented at the construction site:

- Control of fugitive dust is required by District Rule 403 and enforced by SMAQMD staff.
- All exposed surfaces shall be watered two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways shall be covered.

- Wet power vacuum street sweepers shall be used to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved shall be completed as soon as possible. In addition, building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling time shall be minimized either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Clear signage shall be provided that posts this requirement for workers at the entrances to the site.
- Current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1] shall be provided. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_cert1.html.
- All construction equipment shall be maintained in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

**Level of Significance after Mitigation:** Less than Significant Impact.

#### 4.2.6.3 Sensitive Receptor Exposure to Air Quality Emissions

**Threshold 4.2-3: Would the project expose sensitive receptors to substantial pollutant concentrations?**

**Less Than Significant Impact.** As previously discussed, sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Individuals particularly vulnerable to diesel particulate matter are children, whose lung tissue is still developing, and the elderly, who may have serious health problems that can be aggravated by exposure to diesel particulate matter. Exposure from diesel exhaust associated with construction activity contributes to both cancer and chronic non-cancer health risks. The nearest residential uses to the Project site are single-family homes located approximately 140 feet to the east of the easternmost rail replacement and approximately 160 feet east of the proposed platform.

The following section describes the potential impacts on sensitive receptors from construction and operation of the proposed Project.

**Project Construction – Toxic Air Contaminants.** Construction of the proposed Project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction

equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, construction contractors would be required to implement measures to reduce or eliminate emissions by implementing the SMAQMD's construction BMPs as required by **Mitigation Measure AIR-1**. Project construction emissions would be below SMAQMD significance thresholds. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations during Project construction. Impacts would be **less than significant,** and no mitigation measures would be required.

**Project Operation – Toxic Air Contaminants.** The proposed Project would result in idling trains adjacent to residential receptors which could increase long-term cancer risk in the Project vicinity. To determine health risks associated with the idling trains to residential receptors, a Health Risk Assessment (HRA) was conducted for the proposed Project based on three current guidance documents: 1) the California USEPA Air Toxics Hot Spots Program Risk Assessment Guidelines (CalEPA 2015); 2) the California Air Pollution Control Officers Association (CAPCOA) Health Risk Assessment for Proposed Land Use Projects (CAPCOA 2009); and 3) the SMAQMD Mobile Sources Air Toxics Protocol (MSAT Protocol; SMAQMD 2020).

The HRA was conducted utilizing the USEPA's AERMOD dispersion model to determine the pollutant concentrations associated with station train emissions, in conjunction with the CARB's HARP2 model to determine the associated site-specific potential health risk levels existing residents would be exposed to. Model inputs, including detailed meteorological data for the site, were obtained from the SMAQMD. In addition, the HRA assumed that trains would idle for one minute and that there would be 14 train loadings per day. The types of trains were assumed to be Tier 4 Siemens Chargers using diesel fuel pulling five to ten coaches.

**Table 4.2-G** identifies the maximum computed cancer risks due to exposure of train emissions for a 70-year and 30-year exposure period, including an adjustment factor to account for child exposure. Model outputs and graphics displaying the Project site, modeled roadways, and risk contour lines are included in Appendix D.

### Table 4.2-G: Maximum Long-Term Health Risk Impacts from the Proposed Project

| | 70-Year Carcinogenic Inhalation Health Risk in One Million | 30-Year Carcinogenic Inhalation Health Risk in One Million | Chronic Inhalation Hazard Index |
|---|---|---|---|
| Maximally Exposed Individual | 5.73 | 4.86 | 0.0014 |
| **Threshold** | **10.0** | **10.0** | **1.0** |
| **Exceed?** | **No** | **No** | **No** |

Source: LSA (October 2021).

Results of the analysis indicate that the maximally exposed individual (MEI) inhalation 70-year cancer risk would be 5.73 in 1 million, while the 30-year cancer risk would be 4.86 in 1 million. The resulting risk levels would be below the SMAQMD threshold of 10 in 1 million. As such, the 70-year cancer risk and 30-year cancer risk would not exceed SMAQMD thresholds. Therefore, impacts would be **less than significant**.

**Asbestos.** The Project site is not located within an area known to contain naturally occurring asbestos (NOA; Department of Conservation n.d.) and the Project would not involve the demolition of buildings which could contain asbestos. Furthermore, the handling and disposal of these materials is regulated by the federal and state Occupational Safety and Health Administration (OSHA and Cal/OSHA), and the National Emissions Standards for Hazardous Air Pollutants regulations as listed in the Code of Federal Regulations requiring notification and inspection. Because the SJRRC and its construction contractors are required to comply with these materials handling regulations, and because the Project-related construction area would be fenced to exclude the presence of non-authorized personnel, the potential risk for naturally occurring asbestos during Project construction is minimal. Impacts would be **less than significant,** and no mitigation measures would be required.

**Valley Fever.** Disturbance of soil containing *Coccidioides immitis* could expose the receptors adjacent to the Project construction sites to spores known to cause Valley Fever. Receptors adjacent to the construction area, therefore, may be at increased risk of inhaling *Coccidioides immitis* spores and subsequently developing Valley Fever. However, receptors must be exposed to and inhale the spores to be at an increased risk of developing Valley Fever. Moreover, not everyone who is exposed to *Coccidioides* becomes ill. In addition, dust control measures would reduce the potential for Valley Fever infection. Implementation of Mitigation Measure AIR-1 requires implementation of BMPs during Project construction which would reduce the exposure to the workers and nearby residences. Therefore, dust from the construction of the proposed Project is not anticipated to significantly add to the existing exposure of people to Valley Fever. Impacts would be **less than significant,** and no mitigation measures would be required.

**Level of Significance prior to Mitigation:** Less Than Significant.

**Regulatory Compliance Measures and Mitigation Measures:** No regulatory compliance measures or mitigation measures would be required.

**Level of Significance after Mitigation:** Less Than Significant.

## 4.3 NOISE

Analysis in this section is based on the technical noise and vibration assessment prepared for this Project. All specific calculations associated with the Project are provided in **Appendix E**. This section evaluates the existing noise and vibration levels on the Project site and in the surrounding area and evaluates the potential changes in noise and vibration levels that could result from implementation of the proposed Project.

### 4.3.1 Scoping

The SJRRC received 21 comment letters during the Notice of Preparation (NOP) public review period. Five comment letters were from residents in the vicinity of the Project, who expressed concerns that noise levels from the Project would impact their residences. A comment letter from the California Department of Fish and Wildlife (CDFW) recommended that the EIR include avoidance and minimization measures, including noise monitoring, to ensure that impacts to nesting birds or their nests do not occur.

### 4.3.2 Methodology

The evaluation of impacts associated with the proposed Project includes the following:

- Noise levels from short-term construction of the Project at off-site noise-sensitive uses and a comparison to Federal Transit Administration (FTA) guidelines;
- Long-term noise levels at off-site noise sensitive uses as a result of stationary noise sources, such as the proposed parking lot, and potential operations at the proposed station (i.e., public address system), and a comparison of those levels to the pertinent noise standards; and
- Ground-borne vibration levels at off-site noise sensitive uses as a result of short-term construction of the Project.

The approved Valley Rail Sacramento Extension Project EIR assessed noise from train operations, such as wheels on tracks and horns, and determined that no severe noise impacts were identified. Because the proposed Project would not introduce a change in operations along the UPRR corridor and operations would be consistent with those evaluated in the approved Valley Rail Sacramento Extension Project EIR, further evaluation of train operations is not included in this section of the EIR.

It should be noted that as stated in the FTA *Transit Noise and Vibration Impact Assessment Manual* (FTA Manual; FTA 2018), for diesel trains at slower speeds, rail train noise is dominated by the locomotive exhaust noise, but as speed increases, wheel-rail noise becomes the dominant noise source. Therefore, a train traveling through a station at a constant cruising speed generates more noise than a decelerating or accelerating train. This analysis assumes trains traveling through the station at a constant cruising speed, which is a more conservative assessment than analyzing noise when the train is decelerating (approaching the station) and accelerating (leaving the station) at speeds less than the cruise speed.

### 4.3.3 Existing Environmental Setting

This section describes the fundamentals of noise and vibration and describes the existing noise environment of the Project site and its vicinity.

#### 4.3.3.1 Characteristics of Sound

Noise is generally defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is the number of complete vibrations or cycles per second of a wave that results in the range of tone from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment, and it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effects on adjacent sensitive land uses.

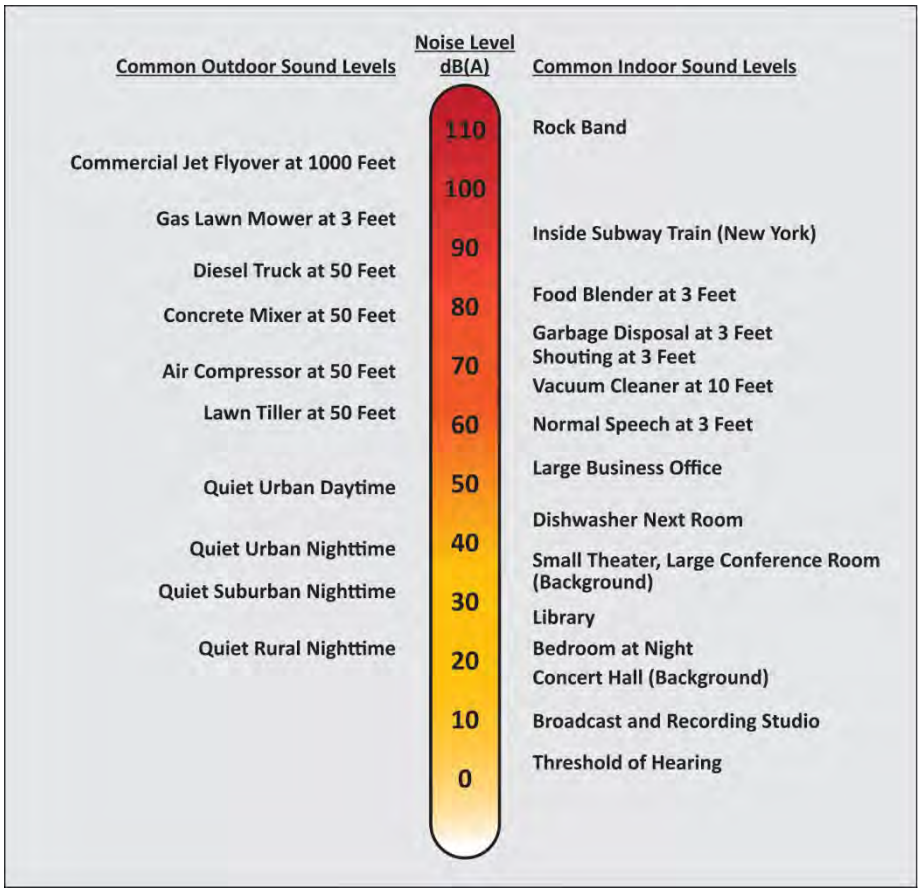
**Measurement of Sound.** Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level deemphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. **Table 4.3-A: Definitions of Acoustical Terms** contains a list of typical acoustical terms and definitions. **Figure 4.3-1: Typical A-Weighted Sound Levels** shows representative outdoor and indoor noise levels in units of dBA.

## Table 4.3-A: Definitions of Acoustical Terms

| Term | Definitions |
|---|---|
| Decibel, dB | A unit of sound level that denotes the ratio between two quantities proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio. |
| Frequency, Hz | Of a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., number of cycles per second). |
| A-Weighted Sound Level, dBA | The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise. |
| $L_{01}$, $L_{10}$, $L_{50}$, $L_{90}$ | The fast A-weighted noise levels equaled or exceeded by a fluctuating sound level for 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period. |
| Equivalent Continuous Noise Level, $L_{eq}$ | The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time varying sound. |
| Community Noise Equivalent Level, CNEL | The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of five decibels to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m. |
| Day/Night Noise Level, $L_{dn}$ | The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m. |
| $L_{max}$, $L_{min}$ | The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging. |
| Ambient Noise Level | The all-encompassing noise associated with a given environment at a specified time, usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant. |
| Intrusive | The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level. |

Source: *Handbook of Acoustical Measurements and Noise Control* (Cyril Harris 1998)

**Figure 4.3-1: Typical A-Weighted Sound Levels**




Source: Compiled by LSA (2016).

A decibel (dB) is a unit of measurement which indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise sensitive receptor of concern.There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level ($L_{eq}$) is the total sound energy of time varying noise over a sample period. However, the predominant

rating scales for human communities in the State of California are the $L_{eq}$, the community noise equivalent level (CNEL), and the day-night average level ($L_{dn}$) based on A-weighted decibels (dBA). CNEL is the time varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly $L_{eq}$ for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). $L_{dn}$ is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours. CNEL and $L_{dn}$ are within one dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

Other noise rating scales of importance when assessing the annoyance factor include the maximum noise level ($L_{max}$), which is the highest exponential time averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of maximum levels denoted by $L_{max}$ for short-term noise impacts. $L_{max}$ reflects peak operating conditions, and addresses the annoying aspects of intermittent noise.

Noise standards in terms of percentile exceedance levels, $L_n$, are often used together with the $L_{max}$ for noise enforcement purposes. When specified, the percentile exceedance levels are not to be exceeded by an offending sound over a stated time period. For example, the $L_{10}$ noise level represents the level exceeded 10 percent of the time during a stated period. The $L_{50}$ noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The $L_{90}$ noise level represents the noise level exceeded 90 percent of the time and is considered the lowest noise level experienced during a monitoring period. It is normally referred to as the background noise level. For a relatively steady noise, the measured $L_{eq}$ and $L_{50}$ are approximately the same.

Noise impacts can be described in three categories. The first is audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3.0 dBA or greater, since, as described earlier, this level of noise change has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1.0 and 3.0 dBA. This range of noise levels has been found to be noticeable only in laboratory environments. The last category is changes in noise level of less than 1.0 dBA that are inaudible to the human ear. A change in noise level of at least 5 dBA would be required before any noticeable change in human response would be expected and a 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response. Only audible changes in existing ambient or background noise levels are considered potentially significant.

**Physiological Effects of Noise.** The effects of noise on people can also be described in three categories: annoyance, interference with activities such as speech or sleep, and physiological effects such as hearing loss. Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, functions of the ear, and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling.

Unwanted community effects of noise occur at levels much lower than those that cause hearing loss and other health effects. Noise annoyance occurs when it interferes with sleeping, conversation, and noise-sensitive work, including learning or listening to the radio, television, or music. According to World Health Organization *Guidelines for Community Noise* (WHO 1999), few people are seriously annoyed by daytime activities with noise levels below 55 dBA, or are only moderately annoyed with noise levels below 50 dBA.

#### 4.3.3.2 Characteristics of Ground-borne Vibration

Vibrating objects in contact with the ground radiate vibration waves through various soil and rock strata to the foundations of nearby buildings. As the vibration propagates from the foundation throughout the remainder of the building, the vibration of floors and walls may cause perceptible vibration from the rattling of windows or a rumbling noise. The rumbling sound caused by the vibration of room surfaces is called ground-borne noise. When assessing annoyance from ground-borne noise, vibration is typically expressed as root mean square (rms) velocity in units of decibels of 1 micro-inch per second. To distinguish vibration levels from noise levels, the unit is written as "VdB." Human perception to vibration starts at levels as low as 67 VdB and sometimes lower. Annoyance due to vibration in residential settings starts at approximately 70 VdB. Ground-borne vibration is almost never annoying to people who are outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of the building, the motion does not provoke the same adverse human reaction.

In extreme cases, excessive ground-borne vibration has the potential to cause structural damage to buildings. Vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). Common sources of ground-borne vibration include trains and construction activities such as blasting, pile driving, and operating heavy earthmoving equipment. Typical vibration source levels from construction equipment are shown in **Table 4.3-B: Typical Vibration Source Levels for Construction Equipment.**

**Table 4.3-B: Typical Vibration Source Levels for Construction Equipment**

| Equipment | | PPV at 25 feet (in/sec) | Approximate VdB at 25 feet |
|---|---|---|---|
| Pile Driver (impact) | Upper range | 1.518 | 112 |
| | Typical | 0.644 | 104 |
| Pile Driver (sonic) | Upper range | 0.734 | 105 |
| | Typical | 0.170 | 93 |
| Clam shovel drop (slurry wall) | | 0.202 | 94 |
| Hydromill (slurry wall) | In soil | 0.008 | 66 |
| | In rock | 0.017 | 75 |
| Vibratory roller | | 0.210 | 94 |
| Hoe ram | | 0.089 | 87 |
| Large bulldozer | | 0.089 | 87 |
| Caisson drilling | | 0.089 | 87 |
| Loaded trucks | | 0.076 | 86 |
| Jackhammer | | 0.035 | 79 |
| Small bulldozer | | 0.003 | 58 |

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).

#### 4.3.3.3 Existing Noise Environment

The noise environment in the City is affected by a variety of noise sources, including vehicle traffic, aircraft, commercial, industrial, and railroad noise. The primary existing noise and vibration sources in the Project area are transportation facilities, including Laguna Boulevard and Elk Grove Boulevard as well as existing train activity along the UPRR corridor. The following section describes the existing noise environment and identifies the primary noise sources in the vicinity of the Project site.

**Existing Transportation Related Noise.** Motor vehicles with their distinctive noise characteristics are a major source of noise in the City. The amount of noise varies according to many factors, such as volume of traffic, vehicle mix (percentage of cars and trucks), average traffic speed, and distance from the observer. Traffic noise depends primarily on traffic speed (high-frequency tire noise increases with speed) and the proportion of truck traffic, which generates engine, exhaust and wind noise. The proximity of major streets, and the large amount of truck traffic serving commercial uses in the area, make the City susceptible to traffic noise. Traffic noise at the Project site is primarily associated with vehicle traffic on Laguna Boulevard and Elk Grove Boulevard.

Existing railroad activity along the UPRR corridor is also a primary source of noise in the vicinity; however, train events are currently intermittent and inconsistent.

**Existing Commercial/Industrial/Office Noise.** Commercial and light industrial activity is a minor noise source at the Project site. Automobile and truck access, vehicles parking, and loading/ unloading activities are all associated with the parking lots and buildings located to the north of the proposed station, between Dwight Road and the UPRR corridor.

**Existing Aircraft Noise.** The closest airstrip to the Project site is Borges-Clarksburg Airport, located approximately 2.5 miles west of the project site, and the closest airport to the Project site is Sacramento Executive Airport, located approximately 4.6 miles northwest of the Project site. In addition, Franklin Field (F72) is located 7 miles south of the Project site, Mustang Airport (2CL9) is located more than 10 miles southeast of the Project site, and Mather Airport is located 11 miles northwest of the Project site. Although aircraft-related noise is occasionally audible on the Project site, the site does not lie within the 65 dBA CNEL noise contours of any of these airports. Due to the distance of the CNEL contours, this topic is not discussed further in this section of the EIR.

**Existing Sensitive Land Uses.** Certain land uses are considered more sensitive to noise than others. Examples of these include residential areas, transient lodging, educational facilities, hospitals, childcare facilities, and senior housing. The Project site is immediately surrounded by commercial, office, light industrial, and residential uses and transportation facilities. The nearest residential uses to the Project site are single-family homes as close as 140 feet to the east of the easternmost rail replacement and 310 feet east of the proposed platform.

**Noise Level Monitoring.** To update and assess the existing noise conditions in the Project vicinity, noise measurements were conducted at the Project site. Three long-term (24-hour) measurements were taken from August 24, 2021 to August 25, 2021. Additionally, two short-term (15-minute) measurements were taken on August 25, 2021. Based on noise measurement results, the uses in the vicinity of the Project site are exposed to noise levels between 59 dBA $L_{dn}$ and 63 dBA $L_{dn}$ primarily

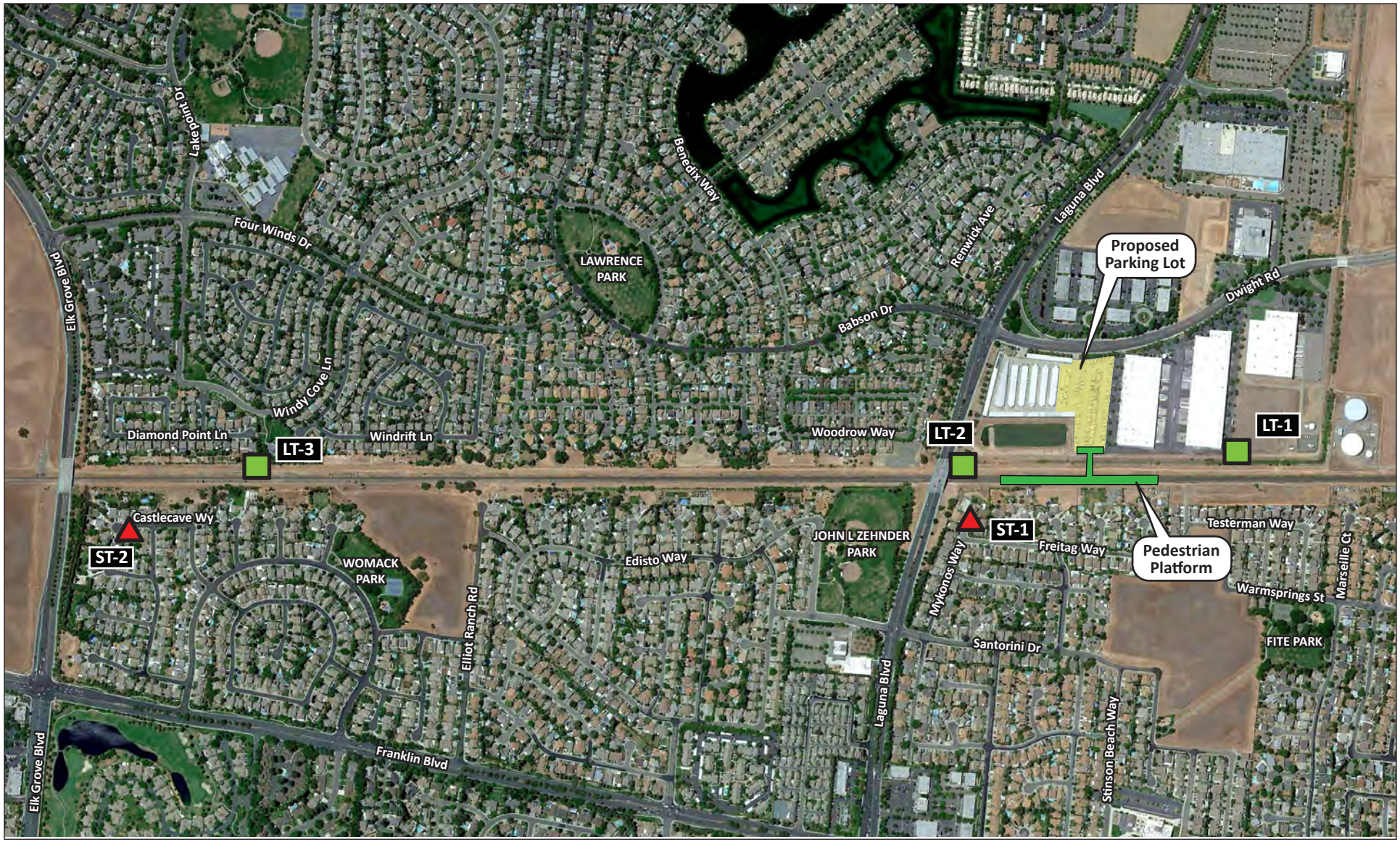
associated with vehicle traffic noise and railroad events. Noise measurement locations are shown in **Figure 4.3-2: Noise Monitoring Locations** and the results are summarized in **Table 4.3-C: Existing Noise Level Measurements.** Noise measurement data information is provided in **Appendix E** of this analysis.

## Table 4.3-C: Existing Noise Level Measurements

| Location Number | Location Description | Daytime Noise Levels[1] (dBA $L_{eq}$) | Nighttime Noise Levels[2] (dBA $L_{eq}$) | Average Daily Noise Levels (dBA $L_{dn}$) | Primary Noise Sources |
|---|---|---|---|---|---|
| LT-1 | Northeast corner of commercial/ industrial park, 165 feet west of center of railway, approximately 800 feet north of proposed station parking. | 46.1–68.0 | 44.9–68.0 | 61.2 | Passing trains, commercial/industrial parking lot activity, wind. |
| LT-2 | 7 feet above ground in tree, 125 feet west of center of railway, approximately 700 feet south of proposed station parking and 120 feet north of Laguna Blvd. traffic. | 50.6–66.7 | 42.8–52.7 | 60.0 | Passing trains, traffic on Laguna Blvd. |
| LT-3 | Eastern edge of Caterino Park, 90 feet west of center of railway, approximately ¼ mile north of proposed southern terminus. | 43.1–69.9 | 43.2–50.4 | 62.0 | Passing trains, distant Elk Grove Blvd. traffic, Windy Cove Ln. traffic, park activity. |
| ST-1[3] | Cul-de-sac near Mykonos & Freitag Way, 1st/2nd row sidewalk, 250 feet from Laguna Blvd. | 49.6–65.7 | 41.8–51.7 | 59.1 | Laguna Blvd., neighborhood activity. |
| ST-2[3] | Sidewalk in front of 9585 Castlecave Ct. Approximately 400 feet from Elk Grove Blvd. | 50.8–65.5 | 51.0–58.1 | 62.8 | Elk Grove Blvd., neighborhood activity, wildlife. |

Source: Compiled by LSA (September 2021).
[1] Daytime Noise Levels = noise levels during the hours of 7:00 a.m. to 7:00 p.m.
[2] Nighttime Noise Levels = noise levels during the hours of 10:00 p.m. to 7:00 a.m.
[3] Short-term measurement data estimated based on corresponding long-term measurement intervals.

$L_{dn}$ = Day/Night Noise Level
dBA = A-weighted decibels




LSA

FIGURE 4.3-2

0 500 1000
FEET

N

Long Term Monitoring Locations

Short Term Monitoring Locations

*Elk Grove Station Project EIR*

Noise Monitoring Locations

SOURCES: Google Earth, 6/20/2021; LSA, 2021

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### 4.3.4 Regulatory Setting

This section summarizes federal, State, regional, and local regulations related to noise and vibration that are applicable to the proposed Project.

#### 4.3.4.1 Federal Regulations

**Noise Control Act of 1972.** The Noise Control Act of 1972 (42 United States Code 4910) was the first comprehensive statement of national noise policy. The Noise Control Act declared "it is the policy of the U.S. to promote an environment for all Americans free from noise that jeopardizes their health or welfare." Although the Noise Control Act, as a funded program, was ultimately abandoned at the federal level, it served as the catalyst for comprehensive noise studies and the generation of noise assessment and mitigation policies, regulations, ordinances, standards, and guidance for many states, counties, and municipal governments. For example, the noise elements of community general plan documents and local noise ordinances considered in this analysis were largely created in response to the passage of the Noise Control Act.

**Federal Railroad Administration Guidelines and Noise Emission Compliance Regulation.** The FRA has developed a guidance manual for assessing noise and vibration impacts from major rail projects. Although not at the level of a rule or a standard, FRA guidance is intended to satisfy environmental review requirements and assist project sponsors in addressing predicted construction and operation noise and vibration during the design process.

FRA also has a regulation governing compliance of noise emissions from interstate railroads. FRA's Railroad Noise Emission Compliance Regulation (49 CFR Part 210) prescribes compliance requirements for enforcing railroad noise emission standards adopted by EPA (40 CFR Part 201).

**Federal Transit Administration Guidelines.** Similar to FRA, the FTA has developed a guidance manual for assessing noise and vibration impacts from major rail projects intended to satisfy environmental review requirements and assist project sponsors in addressing predicted construction and operation noise and vibration during the design process. The FTA Manual (FTA 2018) noise and vibration impact criteria for rail projects and their associated fixed facilities, such as storage and maintenance yards, passenger stations and terminals, parking facilities, and substations, are described below for CEQA Thresholds of Significance, and are the primary noise criteria used for the proposed Project. FTA guidance is accepted by FRA.

**Construction Noise Impact Criteria. Table 4.3-D: FTA Construction Noise Assessment Criteria** presents the FTA noise assessment criteria for construction activity. The last column applies to construction activities that extend over 30 days near any given receiver. $L_{dn}$ is used to assess impacts in residential areas, and 24-hour $L_{eq}$ is used in commercial and industrial areas.

## Table 4.3-D: FTA Construction Noise Assessment Criteria

| Land Use | 8-hour $L_{eq}$, dBA | | Noise Exposure, $L_{dn}$, dBA |
|---|---|---|---|
| | Day | Night | 30-day Average |
| Residential | 80 | 70 | 75 |
| Commercial | 85 | 85 | 80[a] |
| Industrial | 90 | 90 | 85[a] |

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
a=24-hour $L_{eq}$, not $L_{dn}$.
$L_{eq}$=equivalent sound level
dBA=A-weighted decibel
$L_{dn}$=day-night sound level

The 8-hour $L_{eq}$ and the 30-day average $L_{dn}$ noise exposure from construction noise calculations use the noise emission levels of the construction equipment, its location, and operating hours. The construction noise limits are normally assessed at the noise-sensitive receiver property line.

**Construction Vibration Impact Criteria.** Guidelines in the FTA Manual (FTA 2018) provide the basis for the construction vibration assessment. FTA provides construction vibration criteria designed primarily to prevent building damage, and to assess whether vibration might interfere with vibration-sensitive building activities or temporarily annoy building occupants during the construction period. The FTA criteria include two ways to express vibration levels:

- Root-mean-square (RMS) vibration velocity level (Lv, in VdB ) for annoyance and activity interference.
- Peak particle velocity (PPV), which is the maximum instantaneous peak of a vibration signal used for assessments of damage potential.

To avoid temporary annoyance to building occupants during construction, or construction interference with vibration-sensitive equipment inside special-use buildings, such as a magnetic resonance imaging machine, FTA recommends using the long-term operational vibration criteria (discussed below in Operational Noise and Vibration Impact Assessment Criteria).

**Table 4.3-E: Federal Transit Administration Construction Vibration Damage Criteria** presents the FTA building damage criteria for construction activity, and lists PPV and approximate $L_v$ limits for four building categories. These limits are used to estimate potential problems that should be addressed during final design.

## Table 4.3-E: Federal Transit Administration Construction Vibration Damage Criteria

| Building Category | PPV (inch/sec) | Approximate Lv[1] |
|---|---|---|
| I. Reinforced concrete, steel, or timer (no plaster) | 0.5 | 102 |
| II. Engineered concrete and masonry (no plaster) | 0.3 | 98 |
| III. Non-engineered timber and masonry buildings | 0.2 | 91 |
| IV. Buildings extremely susceptible to vibration damage | 0.12 | 90 |

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
1 RMS vibration velocity level in VdB relative to 1 micro-inch/second.
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration decibel

**Train Vibration Impact Criteria. Table 4.3-F: Federal Transit Administration Ground-borne Vibration and Ground-borne Noise Impact Criteria** summarizes FTA criteria for acceptable ground-borne vibration, and presents vibration sensitivity in terms of the land use categories. These levels represent the maximum vibration level of an individual train pass-by. A vibration event occurs each time a train passes the building or property and causes discernible vibration. Frequent events are more than 70 vibration events per day, occasional events are 30 to 70 vibration events per day, and infrequent events are fewer than 30 vibration events per day. Ground-borne vibration impacts from train operations inside vibration-sensitive buildings are defined by the vibration velocity level, expressed in terms of VdB, and the number of vibration events per day from the same kind of source.

## Table 4.3-F: Federal Transit Administration Ground-borne Vibration and Ground-borne Noise Impact Criteria

| Land Use Category | Ground-borne Vibration Impact Levels (VdB re 1 micro-inch /sec) | | | Ground-borne Noise Impact Levels (dBA re 20 micro Pascals) | | |
|---|---|---|---|---|---|---|
| | Frequent Events | Occasional Events | Infrequent Events | Frequent Events | Occasional Events | Infrequent Events |
| Category 1: Buildings where vibration would interfere with interior operations[1] | 65 | 65 | 65 | N/A[2] | N/A[2] | N/A[2] |
| Category 2: Residences and buildings where people normally sleep. | 72 | 75 | 80 | 35 | 38 | 43 |
| Category 3: Institutional land uses with primarily daytime use. | 75 | 78 | 83 | 40 | 43 | 48 |

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
1 Criteria for this land use are based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. For equipment that is more sensitive, a detailed vibration analysis must be performed.
2 Vibration-sensitive equipment is generally not sensitive to ground-borne noise.
VdB=vibration decibel
dBA=A-weighted decibel
N/A=not applicable

**Table 4.3-F: Federal Transit Administration Ground-borne Vibration and Ground-borne Noise Impact Criteria** includes additional FTA criteria for ground-borne noise. Although the criteria are expressed in dBA, which emphasizes the more audible middle and high frequencies, the criteria are significantly lower than airborne noise criteria to account for the annoying low frequency character of ground-borne noise. Ground-borne noise is a low-frequency rumbling sound inside buildings, caused by vibrations of floors, walls, and ceilings. Ground-borne noise is generally not a problem for buildings near railroad tracks at or above grade, because the airborne noise from trains typically masks the effects of ground-borne noise. Ground-borne noise becomes an issue in cases where airborne noise cannot be heard, such as for buildings near tunnels.

#### 4.3.4.2 State Regulations

**California Noise Control Act.** At the State level, the California Noise Control Act, enacted in 1973 (Health and Safety Code 46010 et seq.), requires the Office of Noise Control in the Department of Health Services to provide assistance to local communities developing local noise control programs. The Office of Noise Control also works with the Office of Planning and Research to provide guidance for preparing required noise elements in city and county general plans, pursuant to Government Code Section 65302(f). In preparing the noise element, a city or county must identify local noise sources, and analyze and quantify, to the extent practicable, current and projected noise levels for various sources, including highways and freeways; passenger and freight railroad operations; ground rapid transit systems; commercial, general, and military aviation and airport operations; and other ground stationary noise sources. These noise sources also would include commuter rail alignments. The California Noise Control Act stipulates the mapping of noise-level contours for these sources, using community noise metrics appropriate for environmental impact assessment as defined below. Cities and counties use these as guides to making land use decisions to minimize the community residents' exposure to excessive noise.

#### 4.3.4.3 Regional Regulations

SJJPA, a State Joint Powers Agency, and the SJRRC propose improvements within and outside of the UPRR right-of-way (ROW). The Interstate Commerce Commission Termination Act (ICCTA) affords railroads engaged in interstate commerce considerable flexibility in making necessary improvements and modifications to rail infrastructure, subject to the requirements of the Surface Transportation Board.[1] ICCTA broadly preempts state and local regulation of railroads, and this preemption extends to the construction and operation of rail lines. Therefore, activities in existing UPRR right-of-way are exempt from local building and zoning codes and other land use ordinances. Project improvements proposed outside of the UPRR right-of-way, however, would be subject to regional and local plans and regulations. Although ICCTA does broadly preempt state and local regulation of railroads, SJJPA and SJRRC intend to obtain local agency permits for construction of facilities that fall outside of the UPRR right-of-way, even though SJRRC has not determined that such permits are legally necessary, and such permits may not be required.

The following regional policy is applicable to the proposed Project:

[1] Altamont Corridor Express (ACE) and Amtrak operate within a ROW and on tracks owned by UPRR, which operates interstate freight rail service in the same ROW and on the same tracks.

***County of Sacramento General Plan* Policy Document (County of Sacramento 2017a).**[1] Policy NO-9 requires that noise from transportation projects should be mitigated to below 60 dBA if the projected future traffic noise level exceeds 65 dBA at sensitive land uses. If the pre-project traffic noise level exceeds 65 dBA, noise should be mitigated if there is a projected significant increase in noise, as defined in **Table 4.3-G: County of Sacramento Noise from Transportation Projects.**

## Table 4.3-G: County of Sacramento Noise from Transportation Projects

| Pre-Project Noise Environment ($L_{dn}$) | Significant Increase |
|---|---|
| Less than 60 dB | 5+ dB |
| 60 to 65 dB | 3+ dB |
| Greater than 65 dB | 1.5+ dB |

Source: *County of Sacramento General Plan,* Noise Element (2017a).

For railroads, a maximum ($L_{max}$) noise level standard of 70 dB shall be applied to all sleeping rooms to reduce the potential for sleep disturbance during nighttime train passages.

***County of Sacramento Municipal Code*.** Exterior noise standards are described under section 6.68.070 of the *County of Sacramento Municipal Code* (2018) as follows:

A. The following noise standards, as shown in **Table 4.3-H: Exterior Noise Standards for Sensitive Receptors**, unless otherwise specifically indicated in this chapter, shall apply to all properties within a designated noise area.

## Table 4.3-H: Exterior Noise Standards for Sensitive Receptors

| Noise Area | County Zoning Districts | 7:00 am to 10:00 pm | 10:00 pm to 7:00 am |
|---|---|---|---|
| 1 | RE-1, RD-1, RE-2, RD-2, RE-3, RD-3, RD-4, R-1-A, RD-5, R-2, RD-10, R-2A, RD-20, R-3, R-D-30, RD-40, RM-1, RM-2, A-1-B, AR-1, A-2, AR-2, A-5, AR-5 | 55 dBA | 50 dBA |

Source: County of Sacramento Municipal Code (1981).

B. It is unlawful for any person at any location within the County to create any noise which causes the noise levels on an affected property, when measured in the designated noise area, to exceed for the duration of time set forth following, as shown in **Table 4.3-I: County of Sacramento Municipal Code Time Adjustments**, the specified exterior noise standards in any one hour by:

[1] The northern portion of the Project is adjacent to lands subject to the *County of Sacramento General Plan* and the County's *Municipal Code*. Though no lands under the jurisdiction of Sacramento County are within the Project footprint, applicable County policies are listed as the Project has the potential to result in impacts to adjacent sensitive receptors.

## Table 4.3-I: County of Sacramento Municipal Code Time Adjustments

| Cumulative Duration of the Intrusive Sound | Allowance Decibels |
|---|---|
| 1. Cumulative period of 30 minutes per hour | 0 |
| 2. Cumulative period of 15 minutes per hour | + 5 |
| 3. Cumulative period of 5 minutes per hour | +10 |
| 4. Cumulative period of 1 minute per hour | +15 |
| 5. Level not to be exceeded for any time per hour | +20 |

Source: County of Sacramento Municipal Code (1981).

C. Each of the noise limits specified in subdivision (b) of this section shall be reduced by five dBA for impulsive or simple tone noises, or for noises consisting of speech or music.

D. If the ambient noise level exceeds that permitted by any of the first four noise-limit categories specified in subdivision (b), the allowable noise limit shall be increased in five dBA increments in each category to encompass the ambient noise level. If the ambient noise level exceeds the fifth level category, the maximum ambient noise level shall be the noise limit for that category.

**Construction Noise.** Section 6.68.090, Exemptions, states that the following activities shall be exempted from the provisions of this chapter:

e. Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided said activities do not take place between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday; Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday and on each Sunday after the hour of 8:00 p.m. Provided, however, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 8:00 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner.

### 4.3.4.4 Local Regulations

The Project corridor traverses and is located in the jurisdiction of Elk Grove, California and portions of the Project such as the proposed parking lot, Dwight Road roadway improvements, and the proposed pedestrian overcrossing are located outside the UPRR corridor. Therefore, the following noise and vibration policy has been reviewed and considered for the preparation of this analysis:

**City of Elk Grove Municipal Code.** Exterior noise standards are described under section 6.32.080 of the City of Elk Grove Municipal Code (2019b) as follows:

A. Except as otherwise provided, it is unlawful for any person to create any noise that results in the exposure of sensitive receptors to noise levels that exceed the levels of **Table 4.3-J: Exterior Noise Standards for Sensitive Receptors.**

## Table 4.3-J: Exterior Noise Standards for Sensitive Receptors

| Noise Source Type | 7:00 am to 10:00 pm | 10:00 pm to 7:00 am |
|---|---|---|
| Stationary noise sources, generally | 55 dBA | 45 dBA |
| Stationary noise sources which are tonal, impulsive, repetitive, or consist primarily of speech or music | 50 dBA | 40 dBA |

Source: City of Elk Grove Municipal Code (2019b).

B. Boundary between Different Noise Areas. If the measurement location is on a boundary between two (2) different designated noise areas, the lower noise level limit applicable to the two (2) areas shall apply.

C. If the measured ambient noise level at the time of a complaint investigation exceeds the identified permissible noise level provided in **Table 4.3-J: Exterior Noise Standards for Sensitive Receptors**, the allowable noise shall conform to the following:

1. Where the ambient noise level is less than sixty (60) dB but greater than the threshold in **Table 4.3-J: Exterior Noise Standards for Sensitive Receptors**, a maximum increase of five (5) dB above the ambient noise level is allowed.

2. Where the ambient noise level is between sixty (60) dB and sixty-five (65) dB, inclusive, a maximum increase of three (3) dB above the ambient noise level is allowed.

3. Where the ambient noise level is greater than sixty-five (65) dB, a maximum increase of one and one-half (1.5) dB above the ambient noise level is allowed. [Ord. 6-2019 §3 (Exh. A), eff. 4-26-2019; Ord. 9-2011 §3, eff. 6-24-2011]

While the above standards are applied for most development within the City, Section 6.32.100 (J), Exemptions, states that railroad activities such as the operation of locomotives, rail cars, and facilities by a railroad that is regulated by the State Public Utilities Commission are exempted from the provisions of Chapter 6.32 Noise Control of the City of Elk Grove Municipal Code (2019b).

The following prohibited activities are described as violations under section 6.32.140 of the City of Elk Grove Municipal Code (2019b) and are applicable to the proposed Project:

- **Construction Noise.** Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling or repair work daily between the hours of 7:00 p.m. and 7:00 a.m. when located in close proximity to residential uses, or between the hours of 8:00 p.m. and 6:00 a.m. when not located in close proximity to residential uses, so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities. However, when an unforeseen or unavoidable

condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 8:00 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner.

- **Stationary Nonemergency Signaling Devices.** Sounding or allowing the sounding of an electronically amplified signal from a stationary bell, chime, siren, whistle, or similar devices intended for nonemergency purposes, from a private property for more than 10 consecutive seconds in any hourly period.

### 4.3.5 Thresholds of Significance

The thresholds for noise impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The proposed Project may be deemed to have a significant impact with respect to noise if it would result in:

**Threshold 4.2-1:** **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.**

**Threshold 4.2-2:** **Generation of excessive ground-borne vibration or ground-borne noise levels.**

**Threshold 4.2-3:** **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 two 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.**

As described above in Section 4.2.3.3, the site does not lie within the 65 dBA CNEL noise contours of any public or private airport facilities. Therefore, no impacts would occur related to operations of public or private airports, and Threshold 4.2-3 is not discussed further below.

### 4.3.6 Project Impacts

#### 4.3.6.1 Temporary or Permanent Noise Increase

**Threshold 4.2-1: Would the Project generate 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?**

**Temporary Construction Noise.** Construction for the various improvements would include three basic activities: (1) site work, (2) rail work, and (3) structures work. Construction of the proposed Project is anticipated to occur over a 14-month duration. The proposed station is anticipated to be completed in 14 months, while the proposed siding and relocated UPRR track is anticipated to be completed in 8 months. Because most improvements are on an active freight rail line, construction work could occur during the nighttime. The City generally limits construction noise to the hours of

7:00 a.m. to 7:00 p.m. Nighttime construction work is generally prohibited, but there are conditions for a variance, as detailed in Section 4.2.4.4, above.

**Table 4.3-K: Residential Noise Impact Assessment for Construction Activities** summarizes the estimated construction noise levels and residential noise impact screening distances for each of the planned construction activities. The noise estimates are based on scenarios for the construction activities, using FTA methodology and FTA criteria, both described above. However, to be conservative, the screening distance estimates did not assume any topography or ground effects. The results of the analysis indicate that noise impacts would be limited to residences within 135 to 270 feet from the construction site, depending on the activity. The potential for noise impact would be greatest during structures work at locations where pile driving is required for pedestrian overcrossing construction.

Construction activities would be considered to have a significant impact if they would generate noise exposure in excess of the FTA thresholds. As shown in **Table 4.3-K: Residential Noise Impact Assessment for Construction Activities**, the operation of certain construction equipment and construction activities could generate noise exposure in excess of FTA thresholds. Nighttime construction near residential uses would have larger impacts than daytime construction and would result in a potentially significant impact.

## Table 4.3-K: Residential Noise Impact Assessment for Construction Activities

| Construction Activity and Equipment | Noise Level at 50 feet (dBA) | Equipment Usage Factor (%) | 8-hour $L_{eq}$ at 50 feet (dBA) | | Approx. Noise Impact Distance (feet) |
|---|---|---|---|---|---|
| | | | Predicted Exposure | Daytime Criterion | |
| **SITE WORK** | | | 89 | 80 | 135 |
| Grader | 85 | 53 | 82 | — | — |
| Water Truck | 84 | 44 | 80 | — | — |
| D6 Dozer | 85 | 61 | 83 | — | — |
| Compactor | 82 | 45 | 79 | — | — |
| Dump Truck | 84 | 23 | 78 | — | — |
| **RAIL WORK** | | | 90 | 80 | 150 |
| Locomotive | 88 | 25 | 82 | — | — |
| D6 Dozer | 85 | 38 | 81 | — | — |
| Grader | 85 | 38 | 81 | — | — |
| Water Truck | 84 | 38 | 80 | — | — |
| Tamper | 83 | 20 | 76 | — | — |
| Aligner | 85 | 20 | 78 | — | — |
| Swinger | 85 | 19 | 78 | — | — |
| Welder | 74 | 38 | 70 | — | — |
| Flat Bed Truck | 84 | 31 | 79 | — | — |
| Pickup Truck | 75 | 25 | 69 | — | — |
| SUV | 75 | 31 | 70 | — | — |

## Table 4.3-K: Residential Noise Impact Assessment for Construction Activities

| Construction Activity and Equipment | Noise Level at 50 feet (dBA) | Equipment Usage Factor (%) | 8-hour $L_{eq}$ at 50 feet (dBA) | | Approx. Noise Impact Distance (feet) |
|---|---|---|---|---|---|
| | | | Predicted Exposure | Daytime Criterion | |
| 35-Ton RT Crane | 83 | 38 | 79 | — | — |
| Flat Bed Tractor | 84 | 13 | 75 | — | — |
| Wheel Loader | 80 | 28 | 74 | — | — |
| **STRUCTURES** | | | 95 | 80 | 270 |
| Impact Pile Driver | 101 | 20 | 94 | — | — |
| Generator | 82 | 90 | 82 | — | — |
| 75-Ton Mobile Crane | 83 | 38 | 79 | — | — |
| Water Truck | 84 | 20 | 77 | — | — |
| Flat Bed Truck | 84 | 25 | 78 | — | — |
| Pickup Truck | 75 | 53 | 72 | — | — |
| Concrete Mixer | 85 | 13 | 76 | — | — |
| Concrete Pump | 82 | 18 | 75 | — | — |
| Wheel Loader | 80 | 20 | 73 | — | — |
| Welder | 74 | 31 | 69 | — | — |

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
$L_{eq}$ = equivalent sound level
dBA = A-weighted decibel

Although the measures specified in **Mitigation Measure NOI-1,** below, would generally reduce the construction noise levels, the measures would not necessarily guarantee that sensitive residential receptors would not be exposed to noise levels exceeding the 80 dBA limit during the day, or the 70 dBA limit at night. In addition, given the active railroad, it is probable that construction near some residential areas would have to be conducted at night to avoid disruption of freight and passenger rail operations, and to complete construction on schedule. Furthermore, a temporary sound barrier may be effective in certain locations; but in many cases, the nature of the construction work makes use of such sound walls infeasible.

Construction-related noise would be short-term and would cease after the construction is completed. Still, even with mitigation, the impact of temporary construction-related noise on nearby noise-sensitive receptors would remain a significant and unavoidable impact, particularly where heavy construction would occur immediately adjacent to residences, and where construction would occur at night near residences.

**Level of Significance prior to Mitigation:** Potentially Significant.

**Regulatory Compliance Measures and Mitigation Measures:** The following mitigation measures would apply to all Project improvements to minimize construction noise impacts. However, implementation of **Mitigation Measure NOI-1** would not necessarily guarantee that sensitive residential receptors would not be exposed to noise levels exceeding the 80 dBA limit during the

day, or the 70 dBA limit at night. Therefore, this impact would be significant and unavoidable without additional analysis of the loudest construction equipment proposed with the Project, and potentially, noise reduction measures such as temporary noise-shielding barriers.

**MM NOI-1:** **Implement a Construction Noise Control Plan.** A noise control plan, provided by the construction contractor of the SJRRC, shall incorporate, at a minimum, the following best practices into the construction scope of work and specifications to reduce the impact of temporary construction-related noise on nearby noise-sensitive receptors to be implemented:

- Install temporary construction site sound barriers near noise sources.
- Use moveable sound barriers at the source of the construction activity.
- Avoid the use of impact pile-drivers where possible near noise-sensitive areas, or use quieter alternatives (e.g., drilled piles) where geological conditions permit.
- Locate stationary construction equipment as far as possible from noise-sensitive sites.
- Re-route construction-related truck traffic along roadways that will cause the least disturbance to residents.
- Use low-noise-emission equipment.
- Implement noise-deadening measures for truck loading and operations.
- Line or cover storage bins, conveyors, and chutes with sound-deadening material.
- Use acoustic enclosures, shields, or shrouds for equipment and facilities.
- Use high-grade engine exhaust silencers and engine-casing sound insulation.
- Minimize the use of generators to power equipment.
- Limit use of public address systems.
- Grade surface irregularities on construction sites.
- Monitor and maintain equipment to meet noise limits.
- Establish an active community liaison program to keep residents informed.

**Level of Significance after Mitigation:** Significant and Unavoidable.

#### 4.3.6.2 Stationary Operational Noise

Per the FTA Manual, screening distances for different noise sources determine the level of analysis required. Parking lot and station noise levels are described below.

**Parking Lot.** There would be no noise impacts associated with the proposed parking lot use because there are no sensitive receptors within the 125-foot screening distance for parking facilities.

**Station Operations.** There is potential for noise impacts associated with stationary sources proposed at the platform because there are approximately 15 residences within the 250-foot screening distance for commuter rail stations (without horns blowing). Diesel trains decelerating or accelerating into or out of the station generate less noise than a train traveling at a constant cruising speed (FTA 2018). Therefore, because trains associated with the proposed Project would be decelerating or accelerating at the proposed station, no increase in ambient noise levels associated with train operations is anticipated with the proposed Project.

Sources that have potential to generate noise at the platform include amplified speech such as a public address (PA) system. However, the proposed Project would be designed to meet the City of Elk Grove noise criteria. PA systems can be designed to have automatic volume adjustment controls so the announcements are only a few decibels above ambient noise levels. With proper design of the PA systems and the automatic volume adjustment, the noise from the PA system would not generate any adverse effects in communities near the stations. Although details of the location or specific details of proposed noise generating sources are not available at this time, when locations and details of station operations are known, a site-specific noise analysis including noise from the PA system can be completed, which would include noise reduction measures in order to meet the City of Elk Grove noise criteria.

**Level of Significance prior to Mitigation:** Potentially Significant.

**MM NOI-2:** **Final Noise Analysis During Final Design.** Prior to construction of the proposed station, the construction contractor of the SJRRC shall provide a detailed analysis of potential noise level impacts associated with the station operations at residential receivers to the east and, if needed, recommend noise reduction measures to ensure fixed noise sources do not exceed the City of Elk Grove noise criteria. One potential noise reduction measure would be to ensure that the volume of the future PA system would be set so as not exceed the local criteria or cause a noticeable noise increase, whichever is lower.

**Level of Significance after Mitigation:** Less than Significant with Mitigation.

#### 4.3.6.3 Project-Related Traffic Noise

The proposed Project is estimated to generate an average daily traffic (ADT) volume of 624 based on information in the *SJRRC Elk Grove Station VMT Evaluation* (Fehr & Peers 2021). The largest noise increase would occur when comparing existing to existing plus Project volumes of 37,712 and 38,336, respectively. It takes a doubling of traffic to increase traffic noise levels by 3 dBA per the following equation that was used to determine potential traffic noise increases:

$$\text{Change in Noise Level} = 10 \log_{10} [V_{e+pt}/V_{existing}]$$

where: $V_{existing}$ = the existing daily volume
$V_{e+pt}$ = existing daily volumes plus project trips
Change in Noise Level = the increase in noise level due to project trips

The Project-related traffic would increase traffic noise along adjacent roadways by up to 0.1 dBA. This noise level increase would not be perceptible to the human ear in an outdoor environment. Therefore, traffic noise impacts from Project-related traffic on off-site sensitive receptors would be less than significant, and no mitigation measures are required.

**Level of Significance prior to Mitigation:** Less Than Significant.

**Regulatory Compliance Measures and Mitigation Measures:** No regulatory compliance measures nor Project-specific mitigation measures would be required.

**Level of Significance after Mitigation:** Not applicable.

#### 4.3.6.4 Ground-borne Vibration/Ground-borne Noise

**Threshold 4.2-2: Would the project generate excessive ground-borne vibration or ground-borne noise levels?**

**Ground-borne vibration from construction.** Construction of track improvements as part of the Project could expose sensitive receptors to substantial increases in ground-borne vibration levels. However, this potentially significant impact would be reduced to a less-than-significant level through implementation of **Mitigation Measure NOI-3**, below.

Construction of track improvements can be expected to generate vibration levels from 25 feet away as high as 94 VdB due to compactors during site work; 87 VdB due to bulldozers during rail work; and 104 VdB due to impact pile-drivers during structures work. Except for pile drivers, it is unlikely that such equipment would be used close enough to sensitive structures to have any damage effects. For pile driving, it is anticipated that the potential for damage effects would be limited to structures located at distances in the range of 30 to 75 feet from the construction activities, depending on the building category.

In terms of vibration annoyance effects, the potential extent of vibration impact from pile driving is expected to be even greater than for damage effects. **Table 4.3-L: Screening Distances for Vibration Annoyance Effects from Pile Driving** provides the approximate distances within which receptors

could experience construction-related vibration annoyance effects based on FTA methodology. The results of the analysis indicate that vibration impacts would extend to distances of 230 to 630 feet from pile-driving operations, 100 to 240 feet from compacting, and less than 130 feet from bulldozers, depending on the vibration sensitivity of the land use category. Construction activities would be considered to have a potentially significant impact if they would generate vibration levels in excess of the FTA thresholds.

### Table 4.3-L: Screening Distances for Vibration Annoyance Effects from Pile Driving

| Land Use Category[1] | Vibration Criterion Level (VdB) | Approximate Vibration Impact Distance |
|---|---|---|
| Category 1 (Sensitive Buildings) | 65 | 630 feet |
| Category 2 (Residential Buildings | 72 | 290 feet |
| Category 3 (Institutional Buildings) | 75 | 230 feet |

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).

[1] Criteria for this land use are based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. For equipment that is more sensitive, a detailed vibration analysis must be performed.

VdB = vibration velocity

As shown in **Table 4.3-L: Screening Distances for Vibration Annoyance Effects from Pile Driving**, construction activities would be considered to have a significant impact if they would generate vibration in excess of FTA thresholds. It is expected that ground-borne vibration from construction activities would cause only intermittent localized disturbance along the rail corridor. Although processes such as earthmoving with bulldozers or the use of vibratory compaction rollers can create annoying vibration, there would be only isolated cases where it is necessary to use this type of equipment in close proximity to residential buildings. It is possible that construction activities involving pile drivers occurring at the edge of or slightly outside of the current ROW could result in vibration damage, and damage from construction vibration would be a potentially significant impact.

**Mitigation Measure MM NOI-3,** below would require the preparation and implementation of a construction vibration control plan to reduce the impacts of construction vibration on nearby vibration-sensitive land uses that could be exposed to vibration levels in excess of FTA thresholds. In the event building damage occurs due to construction, repairs would be made, or compensation would be provided. With implementation of Mitigation Measure NOI-3, impacts resulting from construction vibration structural damage would be less than significant.

**Level of Significance prior to Mitigation:** Potentially Significant.

**MM NOI-3:** **Implement a Construction Vibration Control Plan.** Prior to construction of the proposed station and associated improvements, the construction contractor of the SJRRC shall prepare a vibration control plan that incorporates, at a minimum, the following best practices into the construction scope of work and specifications to reduce the impact of temporary construction-related vibration on nearby vibration-sensitive land uses:

- Avoid the use of impact pile-drivers where possible near vibration-sensitive areas, or use alternative construction methods (e.g., drilled piles) where geological conditions permit.
- Avoid vibratory compacting/rolling in close proximity to structures.
- Require vibration monitoring during vibration-intensive activities.
- In the event building damage occurs due to construction, repairs would be made, or compensation would be provided.

**MM NOI-4:** **Conduct a Detailed Design-Level Vibration Analysis.** During final design of the Project, a detailed design-level vibration analysis shall be prepared by the construction contractor of the SJRRC for all track improvements that have the potential for adverse vibration impacts. The analysis shall include design features to reduce the potential vibration impacts to less-than-significant levels. Potential measures include possibly relocating crossovers/turnouts to areas without sensitive receptors, or through the use of special trackwork at these locations to eliminate the gap in the tracks which causes the increase in vibration levels.

**Level of Significance after Mitigation:** Less than Significant with Mitigation.

## 4.4 TRANSPORTATION

Analysis in this section is based on vehicle trip generation estimates prepared by Fehr & Peers (2021), the *City of Elk Grove General Plan* Mobility Chapter (2021a), and the *City of Elk Grove General Plan Environmental Impact Report* (2018a). This section evaluates the existing traffic levels and vehicle miles traveled (VMT) in the surrounding area of the Project site and evaluates the potential changes in traffic levels and VMT that could result from implementation of the proposed Project.

### 4.4.1 Scoping

SJRRC received 21 comment letters during the public review period of the NOP. The comment letters included the six concerns/comments pertaining to transportation:

- Recommendation that transit routes be modified to include a stop at the proposed station.
- Concerns regarding coordination with affected stakeholders to minimize traffic burdens during project construction.
- Concerns regarding additional traffic impacts to Laguna Boulevard AM and PM peak hours.
- Concerns about connectivity to public transit.
- Questions about time limits and/or fees for the proposed parking lot.

- Concerns that existing traffic along Laguna Boulevard and Dwight Road are heavy and concerned it will increase beyond capacity with the Project.

This EIR section considers the comments received during the NOP scoping period specifically pertaining to transportation and provides analysis of the Project impacts.

## 4.4.2 Methodology

The following outlines the analysis methods and evaluation criteria that were used to determine if the addition of the proposed Project would result in unacceptable performance of transportation facilities and services in the City of Elk Grove.

### 4.4.2.1 Roadways

The study roadways were analyzed by comparing daily traffic volumes under existing and future year conditions to the daily traffic design performance targets summarized in **Table 4.4-A.**

## Table 4.4-A: Roadway Segment Performance Targets

| Facility Type | Number of Lanes | Median | Speed (mph) | Average Daily Traffic Design Target (Number of Vehicles) |
|---|---|---|---|---|
| Arterial or Arterial/Collector | 2 | No | 25 | 13,600 |
| | | | 30 | 14,600 |
| | | | 35 | 15,700 |
| | | | 40 | 16,600 |
| | | | 45 | 17,700 |
| | | | 55 | 18,600 |
| | | Yes | 25 | 14,300 |
| | | | 30 | 15,600 |
| | | | 35 | 16,500 |
| | | | 40 | 17,500 |
| | | | 45 | 18,600 |
| | | | 55 | 19,600 |
| | 4 | No | 30 | 29,800 |
| | | | 35 | 31,600 |
| | | | 40 | 33,500 |
| | | | 45 | 35,300 |
| | | Yes | 30 | 31,400 |
| | | | 35 | 33,300 |
| | | | 40 | 35,300 |
| | | | 45 | 37,200 |
| | 5 | Yes | 45 | 45,600 |
| | 6 | Yes | 30 | 46,400 |
| | | | 35 | 48,900 |
| | | | 40 | 51,500 |
| | | | 45 | 54,000 |
| | 7 | Yes | 45 | 59,400 |
| | 8 | Yes | 45 | 64,800 |
| | | | 55 | 72,000 |
| Expressway | 4 | Yes | 55 | 64,800 |
| | 6 | Yes | 55 | 97,200 |
| Freeway | 4 | Yes | 55+ | 74,400 |
| | 6 | Yes | 55+ | 111,600 |
| | 8 | Yes | 55+ | 148,800 |

Source: Fehr & Peers, 2021a; City of Elk Grove Transportation Analysis Guidelines (Adopted February 2019/Updated December 2019)

#### 4.4.2.2 Intersections

The study intersections were analyzed using procedures and methodologies contained in the *Highway Capacity Manual, 6th Edition* (Transportation Research Board 2017), using the Synchro/ SimTraffic software. The traffic operations analysis was conducted using transportation analysis conducted for the City of Elk Grove General Plan update, existing and cumulative conditions. The existing conditions analysis and corresponding traffic volume forecasts were adjusted, using updated traffic counts, from the City of Elk Grove Traffic Monitoring Program using traffic counts collected in late August 2019, when operations were typical (i.e., pre COVID-19 pandemic). **Table 4.4-B** summarizes intersection performance targets.

**Table 4.4-B: Intersection Performance Targets**

| Intersection Control | Delay (seconds) |
|---|---|
| Stop (side-street and all-stop) | < 35.1 |
| Signal | < 35.1 |
| Roundabout | < 35.1 |

Source: Fehr & Peers, 2021; *Highway Capacity Manual 2017*; Transportation Research Board, 2017.

#### 4.4.2.3 Bicycle Facilities

Bicycle Level of Traffic Stress (LTS) refers to the comfort associated with roadways, or the mental ease people experience riding on them. Metrics for bicycling LTS were developed at the Mineta Transportation Institute and published in the report "Low-Stress Bicycling and Network Connectivity" (Mekuria et al. 2012). The criteria establish a "weakest link" approach, as roadways are classified based on their segments with the highest level of traffic stress, assuming that only those that are comfortable riding under the higher stress would travel on that road.

Factors influencing LTS include:

- Number of travel lanes;
- Speed of traffic;
- Number of vehicles;
- Presence of bike lanes;
- Width of bike lanes; and
- Presence of physical barriers.

Bicycle riders vary in experience, skill, ability, and confidence. As such, they rely on the bikeway system to cater to their specific needs and abilities. Some cyclists are more comfortable riding in traffic and value bikeways and routes that are direct and limit unnecessary delay. They more comfortably utilize facilities that share the roadway with automobiles or have limited bicycle infrastructure. People with limited bicycling confidence and lower or developing skill levels such as children and older adult riders may desire more separation from traffic to feel comfortable enough to ride. Different bicycle types also require more space in bicycle facilities, such as trailers for children or cargo or adult tricycles. For these reasons, facilities should be designed to accommodate the lowest skill levels, especially in heavily traveled areas.

Recent research has correlated these different bicycle riders with the level of "traffic stress" they are willing to experience while cycling. Bicycle LTS criteria span from 1 to 4, with 1 being the least stressful and 4 being the most stressful:

- **LTS 1:** Most children and elderly riders can tolerate this level of stress and feel safe and comfortable. LTS 1 roadways typically require more separation from traffic.
- **LTS 2:** This is the highest level of stress that the mainstream adult population will tolerate while still feeling safe.
- **LTS 3:** Bicyclists who are considered "enthused and confident" but still prefer having their own dedicated space for riding will tolerate this level of stress and feel safe while bicycling.
- **LTS 4:** For bicyclists, this is tolerated only by those characterized as "strong and fearless," which comprises a small percentage of the population. These roadways have high speed limits, multiple travel lanes, limited or non-existent bike lanes and signage, and large distances to cross at intersections.

The Fehr & Peers Streetscore+ tool was used to analyze the level of traffic stress for bicyclists. An impact is considered significant if implementation of the project would degrade the Bicycle Streetscore LTS or the Pedestrian Streetscore LTS.

#### 4.4.2.4 Pedestrian Facilities

The Pedestrian LTS methodology builds on Mekuria, Furth, and Nixon's 2012 Low Stress Bicycling and Network Connectivity report and LTS methodology with a corresponding index for pedestrian comfort. A tool to evaluate Pedestrian and Bicycle LTS called Streetscore+ was developed by Fehr & Peers and includes recommended parameters for the pedestrian environment provided by the National Association of City Transportation Officials (NACTO) Urban Streets Design Guide and additional considerations of comfort informed by practitioner and best practice experience. Roadway segments and intersection approaches receive individual scores based on different considerations. The following factors are considered in developing the Pedestrian Streetscore+ for roadways and intersections:

| **Roadways** | **Intersections** |
|---|---|
| Usable sidewalk space | Crossing distance |
| Driveways | Accessibility |
| Pedestrian-scale lighting | Channelized right-turns |
| Street trees and landscaping | Leading pedestrian intervals and pedestrian scrambles |
| Speed | |
| Sidewalk quality | |
| Number of travel lanes | |
| Heavy vehicle volumes | |
| Crosswalk frequency | |

The Pedestrian Streetscore+ uses a scale that ranges from 1 to 4:

- **Streetscore+ 1:** Highly comfortable, pedestrian-friendly, and easily navigable for pedestrians of all ages and abilities, including seniors or school-aged children walking unaccompanied to school. These streets provide an ideal "pedestrian-friendly" environment.

- **Streetscore+ 2:** Generally comfortable for many pedestrians, but parents may not feel comfortable with children walking alone. Seniors may have concerns about the walking environment and take more caution. These streets may be part of a "pedestrian-friendly" environment where it intersects with a more auto-oriented roadway or other environmental constraints.

- **Streetscore+ 3:** Walking is uncomfortable but possible. Minimum sidewalk and crossing facilities may be present, but barriers are also present that make the walking experience uninviting and uncomfortable.

- **Streetscore+ 4:** Walking is a barrier and is very uncomfortable or even impossible. Streets have limited or no accommodation for pedestrians and are inhospitable and possibly an unsafe environment for pedestrians.

#### 4.4.2.5 Transit

An impact is considered significant if the project creates demand for public transit services above the crush load capacity that is provided or planned.

### 4.4.3 Existing Environmental Setting

This section describes the existing environmental setting of the City of Elk Grove in order to provide a baseline for Project analysis. The existing roadway network, transit, bicycle and pedestrian facilities in the City of Elk Grove near the Project site are described herein.

#### 4.4.3.1 Circulation System

The City of Elk Grove is located in the Sacramento Valley approximately 15 miles south of the City of Sacramento. Regional access to the City of Elk Grove is provided by Interstate 5 (I-5) and State Route 99 (SR-99), both of which traverse the length of the state. The following provides a description of the applicable road classifications in the City of Elk Grove:

- **Interstates and State Highways:** State highways provide mostly uninterrupted travel by car, bus, or truck, and are designed for high speeds over long distances. They have fully controlled access through on- and off-ramps, typically with separation between opposing traffic flows. Driveways and alternative modes of transportation such as walking or bicycling are forbidden, and intersections may only occur as freeway interchanges. There are two highways that cross through the City of Elk Grove: I-5 and SR-99.

- **Principal Arterials:** Principal arterials provide limited access on high-speed roads with a limited number of driveways and intersections. Principal arterials also allow bicycles, and pedestrians may be permitted in limited locations. Principal arterials are generally designed for longer trips at the county or regional level.

- **Major Arterials:** Major Arterials provide controlled access for all transportation modes to enter and leave the urban area. In addition, significant intra-area travel, such as between residential areas and commercial or business areas, should be served by this system. Major Arterials can include sidewalks for pedestrian connections, linking land uses to transit. They may have street parking or bike lanes. Arterials range in size from two to eight lanes.

- **Minor Arterials/Collectors:** Minor Arterials/Collectors are two-lane roadways providing access to all transportation modes, with a focus on local access. Pedestrian connections link land uses to local destinations and transit. The right-of-way associated with minor arterials/collectors may feature medians, parking lanes, and bike lanes. Minor arterials/collectors in the Rural Area are subject to the separate Rural Roads Improvement Standards and may have separate pedestrian and multiuse pathways, but no sidewalks, and may have reduced speed requirements. This classification also includes Primary and Secondary Residential Streets.

Access to the Project site is obtained from the following regional and local roads within the City of Elk Grove:

- **Interstate 5:** I-5 is a north-south freeway that traverses California and is a major national freeway that connects Mexico to Canada. Near the Elk Grove Boulevard interchange, I-5 is a four-lane freeway and transitions to a six-lane freeway north of Laguna Boulevard.

- **Laguna Boulevard:** Laguna Boulevard is an east–west roadway extending from I-5 to SR-99. Laguna Boulevard is six lanes from I-5 to Big Horn Boulevard and eight lanes between Big Horn Boulevard and Laguna Springs Drive/SR-99. Laguna Boulevard is constructed to its existing General Plan capacity (City of Elk Grove 2018a).

- **Dwight Road:** Dwight Road is classified as a minor arterial/collector road and there are two travel lanes in both directions. Access to the Project site is via Dwight Road approximately 500 feet north of the Laguna Boulevard/Dwight Road intersection.

The Project would be accessed from Dwight Road. Dwight Road is four lanes and extends north from Laguna Boulevard to the Sacramento Regional Wastewater Treatment Plant and has a posted speed limit of 35 miles per hour. Access to the Sacramento Regional Wastewater Treatment has gated access control. Land uses along Dwight Road have a Light Industrial land use designation (City of Elk Grove 2021a). Laguna Boulevard is an east-west roadway that provides regional vehicular access to the Project with a traffic signal-controlled intersection at Dwight Road.

The City of Elk Grove adopted its *Emergency Operations Plan* (2018b) on September 1, 2018. This Plan identifies specific hazards the population in Elk Grove is susceptible to and provides evacuation routes to exit the City in the event of an emergency.

According to the City's General Plan EIR, the Laguna Boulevard/Dwight Road intersection is operating at an existing level of service (LOS) B and C in the morning and evening, respectively. At buildout of the City, the Laguna Boulevard/Dwight Road intersection is anticipated to operate at LOS C conditions in both morning and evening times (City of Elk Grove 2018).

#### 4.4.3.2 Bicycle and Pedestrian Circulation

The City of Elk Grove has a well-established bicycle and pedestrian circulation system to provide alternative forms of transportation for residents and employees of businesses. The majority of the bicycle facilities in the City are Class II Bike Lanes, which are located on existing streets or highways and are striped for one-way bicycle travel.

Both Laguna Boulevard and Dwight Road provide access to the Project site, and are designed with Class II Bike Lanes. Both roads are also designed with sidewalks that provide pedestrian access to the Project site. The City of Elk Grove adopted the *Bicycle, Pedestrian and Trails Master Plan* (2021b), which identifies existing facilities, opportunities, constraints, and destination points for bicycle users and pedestrians.

Class II bike lanes (on-street with signage and striping) are provided in both directions on Dwight Road and Laguna Boulevard.

Pedestrian facilities are provided on all roadway frontages. Except for Laguna Boulevard, all sidewalks are adjacent to the roadway. On Laguna Boulevard (west of Dwight Road) sidewalks are buffered from the roadway by landscaping. The Laguna Boulevard/Dwight Road/Babson Drive intersection includes pedestrian crosswalks on all legs.

#### 4.4.3.3 Transit

The City of Elk Grove provides transit service within its jurisdiction through Sacramento Regional Transit (SacRT). SacRT includes local transit service and commuter routes that operate Monday through Friday on ten commuter routes. Routes that travel near the Project are described briefly below:

- **Route 112** is a local route that provides service between the Laguna Town Hall area and the Civic Center area. This route runs Monday through Friday from approximately 6:00 a.m. to 8:00 p.m. Generally, the route runs about every hour. Near the Project site, Route 112 travels on Laguna Boulevard with a stop on eastbound and westbound Laguna Boulevard.

- **Route 113** is a local route that provides service between the Laguna Town Hall area and the Elk Grove Corporation Yard. This route runs about every hour Monday through Friday from approximately 6:00 a.m. to 8:00 p.m. and every hour and a half on Saturday from 7:00 a.m. and 6:00 p.m. Near the Project site, Route 113 travels on Laguna Boulevard with a stop on eastbound and westbound Laguna Boulevard.

- **Route 114** is a local route that provides service between the Laguna Town Hall area and the Calvine Road/Bader Road intersection area. This route runs about every hour Monday through Friday from approximately 6:00 a.m. to 8:00 p.m. and every hour and a half on Saturday from 7:00 a.m. and 6:00 p.m. Near the Project site, Route 114 travels on Laguna Boulevard with a stop on eastbound and westbound Laguna Boulevard.

- **Route 12** is a commuter route that travels from the Civic Center area to Downtown Sacramento. Within the study area, the route travels on Laguna Boulevard. This route provides three inbound buses in the morning and three outbound buses in the evening, Monday through Friday.

- **Route 14** is a commuter route that travels from the Big Horn Boulevard/Bruceville Road intersection area to Downtown Sacramento. Within the study area, the route travels on Laguna Boulevard. This route provides four inbound buses in the morning and four outbound buses in the evening, Monday through Friday.

- **Route 19** is a commuter route that travels from the Laguna Boulevard/Harbour Point Drive intersection area to the Franchise Tax Board (Butterfield Light Rail Station). Within the study area, the route travels on Laguna Boulevard. This route provides four inbound buses in the morning and four outbound buses in the evening, Monday through Friday. Two morning and evening return routes are also provided.

The nearest bus stops to the Project site are located on Laguna Boulevard (west and east of Dwight Road). The stop on westbound Laguna Boulevard has a shelter.

## 4.4.4 Regulatory Setting

### 4.4.4.1 Federal Regulations

The Federal Railroad Administration (FRA) is responsible for the development and enforcement of regulations governing the safety of freight and passenger rail systems, including the design, operations, and maintenance of railroads. Examples include issuing guidance on compliance with the Americans with Disabilities Act in the design of passenger station platforms and overseeing compliance with the Rail Safety Improvement Act of 2008 in the implementation of Positive Train Control systems. FRA also published a National Rail Plan in 2010 that describes a vision for a nationwide network of passenger and freight rail.

### 4.4.4.2 State Regulations

Caltrans is the State agency with primary oversight over State highway, bridge, and rail transportation planning, construction, maintenance, and operation. The *2018 California State Rail Plan* establishes a vision of an integrated statewide rail system through "more frequent service, and convenient transfers between rail services and transit" (California Department of Transportation 2018). The goal of this integrated rail plan is to provide a faster, safer, reliable, and more convenient alternative to driving, mitigating traffic congestion, reducing vehicular emissions, and improving quality of life for Californians.

### 4.4.4.3 Regional Regulations

The Interstate Commerce Commission Termination Act of 1995 (ICCTA) (49 U.S.C.A. §10101 et seq.) abolished the Interstate Commerce Commission and gave the Surface Transportation Board exclusive jurisdiction over: (1) transportation by rail carriers and the remedies provided with respect to rates, classifications, rules (including car service, interchange, and other operating rules), practices, routes, services, and facilities of such carriers; and (2) the construction, acquisition, operation, abandonment, or discontinuance of spur, industrial, team, switching, or side tracks, or

facilities. 49 U.S.C. § 10501(b). In short, the ICCTA affords railroads engaged in interstate commerce considerable flexibility in making necessary improvements and modifications to rail infrastructure, subject to the requirements of the Surface Transportation Board.[1] ICCTA broadly preempts State and local regulation of railroads, and this preemption extends to the construction and operation of rail lines. The SJJPA, a State joint powers agency, and the SJRRC propose improvements within and outside of the UPRR right-of-way, and consistent with the ICCTA, activities in existing UPRR right-of-way are exempt from local building and zoning codes and other land use ordinances. Project improvements proposed outside of the UPRR right-of-way, however, would be subject to regional and local plans and regulations. Although ICCTA does broadly preempt State and local regulation of railroads, SJJPA and SJRRC intend to obtain local agency permits for construction of facilities that fall outside of the UPRR right-of-way, even though SJRRC has not determined that such permits are legally necessary, and such permits may not be required.

#### 4.4.4.4 Local Regulations

**City of Elk Grove General Plan.** The City of Elk Grove General Plan Mobility Chapter (2021a) was adopted in August 2021 to guide the mobility of the City through 2040. The Mobility Chapter presents the City's goals and policies for multimodal and active transportation circulation systems, including complete streets design, public transit, maintenance and expansion of the roadway system, and the rail transportation network. The Mobility Chapter also addresses related transportation topics, including safety and metrics for measuring roadway efficiency and VMT. The following policies and standards are applicable to the proposed Project.

> **Policy MOB-1-1:** Achieve State-mandated reductions in VMT by requiring land use and transportation projects to comply with the following metrics and limits. These metrics and limits shall be used as thresholds of significance in evaluating projects subject to CEQA.
>
> Projects that do not achieve the daily VMT limits outlined below shall be subject to all feasible mitigation measures necessary to reduce the VMT for, or induced by, the project to the applicable limits. If the VMT for or induced by the project cannot be reduced consistent with the performance metrics outlined below, the City may consider approval of the project, subject to a statewide of overriding considerations and mitigation of transportation impacts to the extent feasible, provided some other stated form of public objective including specific economic, legal, social, technological, or other considerations is achieved by the project.
>
> **a. New Development** – Any new land use plans, amendments to such plans, and other discretionary development proposals (referred to as "development projects") are required to demonstrate a 15 percent reduction in VMT from existing (2015) conditions. To demonstrate this reduction, conformance with the following land use and cumulative VMT limits is required:
>
> **i. Land Use –** Development projects shall demonstrate that the VMT produced by the project at buildout is equal to or less than the VMT limit of the project's General Plan land use designation, as shown in Table 6-1 [shown as **Table 4.4-C: Vehicle**

[1] Altamont Corridor Express (ACE) and Amtrak operate within a right-of-way and on tracks owned by UPRR, which operates interstate freight rail service in the same right-of-way and on the same tracks.

**Miles Traveled by Land Use Designation**], which incorporates the 15 percent reduction from 2015 conditions.

### Table 4.4-C: Vehicle Miles Traveled Limits by Land Use Designation

| Land Use Designation | VMT Limit (Daily per Service Population) |
|---|---|
| **Commercial and Employment Land Use Designations** | |
| Community Commercial | 41.6 |
| Regional Commercial | 44.3 |
| Employment Center | 47.1 |
| Light Industrial/Flex | 24.5 |
| Light Industrial | 24.5 |
| Heavy Industrial | 39.5 |
| **Mixed Land Use Designations** | |
| Village Center Mixed Use | 41.6 |
| Residential Mixed Use | 21.2 |
| **Public/Quasi-Public Open Space Land Use Designations** | |
| Parks and Open Space[1] | 0.0 |
| Resource Management and Conservation[1] | 0.0 |
| Public Services | 53.1 |
| **Residential Land Use Designations** | |
| Rural Residential | 34.7 |
| Estate Residential | 49.2 |
| Low Density Residential | 21.2 |
| Medium Density Residential | 20.9 |
| High Density Residential | 20.6 |
| **Other Land Use Designations** | |
| Agriculture | 34.7 |

Source: City of Elk Grove, General Plan Mobility, Table 6-1, February 27, 2019.

[1] These land use designations are not anticipated to produce substantial VMT, as they have no residents and few to no employees. These land use designations therefore have no limit and are exempt from analysis.

ii. **Cumulative for Development Projects in the Existing City** – Development projects within the existing (2017) City limits shall demonstrate that cumulative VMT within the City including the project would be equal to or less than the established citywide cumulative limit of 6,367,833 VM (total daily VMT).

iii. **Cumulative for Development Projects in Study Areas –** Development projects located in Study Areas shall demonstrate that cumulative VMT within the applicable Study Area would be equal to or less than the established limit shown in Table 6-2 (of the *City of Elk Grove General Plan* Mobility Chapter 6 [2021a]).

**Policy MOB-1-2:** Consider all transportation modes and the overall mobility of these modes when evaluating transportation design and potential impacts during circulation planning.

**Policy MOB-1-3:** Strive to implement the roadway performance targets (RPT) for operations of roadway segments and intersections, while balancing the effectiveness of design requirements to achieve the targets with the character of the surrounding area as well as the cost to complete the improvement and ongoing maintenance obligations. The Transportation Network Diagram reflects the implementation of the RPT policy at a macro level; the City will consider the specific design of individual segments and intersections in light of this policy and the guidance in the Transportation Network Diagram.

To facilitate this analysis, the City shall use the following guidelines or targets. Deviations from these metrics may be approved by the approving authority (e.g., Zoning Administrator, Planning Commission, City Council).

a. **Vehicular Design Considerations** – The following targets apply to vehicular mobility:

   i. **Intersection Performance –** Generally, and except as otherwise determined by the approving authority or as provided in this General Plan, the City will seek to achieve, to the extent feasible and desired, the peak-hour delay targets identified in [General Plan] Table 6-3.

   ii. **Roadway Performance –** Generally, and except as otherwise determined by the approving authority or as provided in this General Plan, the City will seek to achieve, to the extent feasible and desired, the average daily traffic design targets identified in [General Plan] Table 6-4.

   iii. **Pedestrian and Bicycle Performance –** The City will seek the lowest stress scores possible for pedestrian and bicycle performance after considering factors including design limitations and financial implications.

**Policy MOB-3-2:** Support strategies that reduce reliance on single-occupancy private vehicles and promote the viability of alternative modes of transport.

**Standard MOB-3-2.a:** Require new development to install conduits for future installation of electrical vehicle charging equipment.

**Policy MOB-3-3:** Whenever capital improvements that alter street design are being performed within the public right-of-way, retrofit the right-of-way to enhance multimodal access to the most practical extent possible.

**Policy MOB-3-7:** Develop a complete and connected network of sidewalks, crossings, paths, and bike lanes that are convenient and attractive, with a variety of routes in pedestrian-oriented areas.

**Policy MOB-3-14:** Regulate the provision and management of parking on private property to align with parking demand, with consideration for access to shared parking opportunities.

**Policy MOB-3-15:** Utilize reduced parking requirements when and where appropriate to promote walkable neighborhoods and districts and to increase the use of transit and bicycles.

**Policy MOB-3-16:** Establish parking maximums, where appropriate, to prevent undesirable amounts of motor vehicle traffic in areas where pedestrian, bike, and transit use are prioritized.

**Policy MOB-4-1:** Ensure that community and area plans, specific plans, and development projects promote context-sensitive pedestrian and bicycle movement via direct, safe, and pleasant routes that connect destinations inside and outside the plan or project area. This may include convenient pedestrian and bicycle connections to public transportation.

**Policy MOB-5-6:** The City shall work to incorporate transit facilities into new private development and City project designs including incorporation of transit infrastructure (e.g. electricity and fiber-optic cable), alignments for transit route extensions, new station locations, bus stops, and transit patron waiting area amenities (e.g., benches and real-time traveler information screens).

**Policy MOB-5-8:** Maintain and enhance transit services throughout the City in a manner that ensures frequent, reliable, timely, cost-effective, and responsive service to meet the City's needs. Enhance transit services where feasible to accommodate growth and transit needs as funding allows.

**Policy MOB-5-9:** Continue working with community partners to expand public transit service that benefits Elk Grove workers, residents, students, and visitors. Examples of expanded transit service include increased service frequency, establishing additional routes and stops, and creating dedicated transit lanes.

**Policy MOB-5-10:** Encourage the extension of bus rapid transit and/or light rail service to existing and planned employment centers by requiring a dedication of right-of-way. Advocate and plan for light rail alignment and transit stop locations that best serve the needs of the community and fit within the planned mobility system.

**Policy MOB-5-11:** Encourage commuter rail transportation by providing for a potential train station location for Amtrak and/or other rail service providers along the Union Pacific Railroad's Sacramento Subdivision line.

**Policy MOB-5-12:** The City will work toward the enhancement and improvement of transit service with the objective of creating major transit corridors with frequent service (i.e., less than 30-minute headways) and street segments where transit is prioritized.

**Policy MOB-6-2:** Coordinate with the UPRR to ensure freight rail lines and crossings are maintained.

**Policy MOB 6-3:** Work with the UPRR to minimize the impact of train noise on adjacent sensitive land uses through the continued implementation of Quiet Zones.

**Policy NR-4-4:** Promote pedestrian/bicycle access and circulation to encourage residents to use alternative modes of transportation in order to minimize direct and indirect emissions of air contaminants.

**Policy NR-4-5:** Emphasize demand management strategies that seek to reduce single-occupant vehicle use in order to achieve State and federal air quality plan objectives.

**Elk Grove Transportation Analysis Guidelines (2019a).** The City of Elk Grove adopted the Transportation Analysis Guidelines in February 2019 (update December 2019). The Transportation Analysis Guidelines are in conformance with the City's updated General Plan and consistent with the intent of Senate Bill (SB) 743. SB 743 revised the *CEQA Guidelines* to consider transportation impacts based on a project's VMT rather than roadway capacity-based analysis (i.e., Level of Service).

### 4.4.5 Thresholds of Significance

The thresholds for transportation impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The proposed Project may be deemed to have a significant impact with respect to Transportation if it would:

**Threshold 4.6-1:** **Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.**

**Threshold 4.6-2:** **Conflict or be inconsistent with *CEQA Guidelines* Section 15064.3, subdivision (b).**

**Threshold 4.6-3:** **Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

**Threshold 4.6-4:** **Result in inadequate emergency access.**

### 4.4.6 Project Impacts

#### 4.4.6.1 Conflict with Transportation Program, Plan, Ordinance, or Policy

**Threshold 4.4-1: Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

**Less Than Significant Impact.** Fehr & Peers completed a General Plan Consistency analysis of the proposed Project (2021a). The purpose of the General Plan Consistency analysis is to determine if the proposed Project complies with City of Elk Grove General Plan Policy adopted related to roadway and intersection operation, bicycle and pedestrian facilities, and transit service.

**Roadway**

**Table 4.4-D** summarizes the analysis of roadway design targets under existing and future conditions with and without the addition of the proposed Project.

As shown in **Table 4.4-D**, the addition of traffic would not cause daily traffic volumes to exceed the designated General Plan roadway design targets under existing condition or future conditions. The proposed Project would result in a less than significant impact on study area roadway segments.

## Table 4.4-D: Daily Roadway Segment Volumes (Two-way Total) – Existing and Future Conditions

| Roadway | Segment | | Performance Design Target | Existing Condition | | Future Condition | | Exceed Performance Design Target? |
|---|---|---|---|---|---|---|---|---|
| | From | To | | No Project | Plus Project | No Project | Plus Project | |
| Laguna Boulevard | Harbour Point Drive | Dwight Road/ Babson Drive | 54,000 | 32,228 | 32,484 | 42,300 | 42,556 | No |
| | Dwight Road/ Babson Drive | Franklin Boulevard | 54,000 | 37,712 | 38,336 | 48,400 | 49,024 | No |

Source: Fehr & Peers, 2021b.

### Intersection

**Table 4.4-E** summarizes intersection performance under existing conditions and future conditions with and without the addition of the proposed Project.

## Table 4.4-E: Peak Hour Intersection Operation – Existing and Future Conditions

| Intersection | Traffic Control | Performance Delay Target | Peak Hour | Existing Condition | | Future Condition | | Exceed Performance Delay Target |
|---|---|---|---|---|---|---|---|---|
| | | | | No Project | Plus Project | No Project | Plus Project | |
| Laguna Boulevard/ Dwight Road | Signal | < 55.1 | AM | 17 | 18 | 26 | 30 | No |
| | | | PM | 20 | 20 | 49 | 50 | No |
| Project Access/ Dwight Road | Signal | < 55.1 | AM | — | — | — | 5 | No |
| | | | PM | — | — | — | 5 | No |

Source: Fehr & Peers, 2021a.

As shown in **Table 4.4-E**, the addition of the proposed Project would not cause intersection delay to exceed the designated General Plan intersection targets for acceptable operation under existing or future conditions. The proposed Project would result in a less than significant impact to study area intersections.

### Bicycle Facilities

Class II bike lanes (on-street with signage and striping) are provided in both directions on Dwight Road. **Table 4.4-F** summarize bicycle LTS with the addition of the proposed Project on Dwight Road.

## Table 4.4-F: Bicycle Streetscore LTS

| Roadway Segment/Intersection | | LTS | |
|---|---|---|---|
| | | No Project | Plus Project |
| Dwight Road | Laguna Boulevard to Project Access | 3 | 3 |
| Dwight Road/Project Access | | — | 1 |

Source: Fehr & Peers, 2021a.

As shown in **Table 4.4-F**, the addition of the proposed Project would not degrade the Bicycle Streetscore LTS. The proposed Project would result in a less than significant impact to study area bicycle facilities. Bicycle facilities are proposed at the proposed station to promote the use of bicycles as an alternative mode of transport for rail users.

**Pedestrian Facilities**

Pedestrian facilities are provided on both sides of Dwight Road, with all sidewalks adjacent to the roadway. **Table 4.4-G** summarizes pedestrian LTS on Dwight Road with the addition of the proposed Project.

## Table 4.4-G: Pedestrian Streetscore LTS

| Roadway Segment/Intersection | | LTS | |
|---|---|---|---|
| | | No Project | Plus Project |
| Dwight Road | Laguna Boulevard to Project Access | 3 | 3 |
| Dwight Road/Project Access | | — | 2 |

Source: Fehr & Peers, 2021a.

As shown in **Table 4.4-G**, the addition of the proposed Project would not degrade the Pedestrian Streetscore LTS. The proposed Project would result in a less than significant impact to study area pedestrian facilities. The existing pedestrian facilities would be extended into the proposed station to provide access between the adjacent local streets and the platform area.

**Transit**

The proposed Project is estimated to generate ridership of 890 (boardings and alightings [See **Table 4.4-H**) at the proposed Elk Grove Station. Some of the riders would use transit to access the station or destinations in Elk Grove, which would increase demand for transit (Fehr & Peers 2021a).

The FTA maintains a database of transit system performance. The City of Elk Grove 2019 Annual Agency Profile identifies that local bus service had unlinked trips per vehicle revenue hour of 9.6, or about 10 passengers per hour. Generally, this level of performance is indicative of low demand and productivity. Routes performing at this level would have excess seated and standing capacity. Consequently, the proposed Project would not create demand for public transit services above the crush load capacity of the transit system. While the demand for public transit services would not

result in an increase in ridership above the crush load capacity of the transit system, the Project would increase transit ridership and demand for transit. The proposed Project would result in a less than significant impact to transit services.

**Table 4.4-H: SJRRC Elk Grove Station Ridership**

| Mode | Ridership (Boardings/Alightings) |
|---|---|
| Park-and-Ride (PNR) | 454 |
| Kiss-and-Ride (KNR)/Transportation Network Companies (TNC)/Taxi | 213 |
| Transit | 129 |
| Walk/Bike | 94 |
| **Total** | **890** |

Source: Fehr & Peers, *SJRRC Elk Grove Station Ridership Memorandum*, Table 1 SJRRC Elk Grove Station Ridership, November 19, 2021.

**Parking**

The proposed surface parking lot (APNs 119-1540-021 and 119-0120-066) would provide 227 parking spaces as discussed in the *SJRRC Elk Grove Station Ridership* (Fehr & Peers 2021b).

**Level of Significant prior to Mitigation:** Less than Significant Impact.

**Regulatory Compliance Measures and Mitigation Measures:** No regulatory compliance measures or mitigation measures would be required.

**Level of Significance after Mitigation:** Not applicable.

#### 4.4.6.2 Conflict with CEQA Guidelines Section 15064.3(b)

**Threshold 4.4-2: Would the Project conflict or be inconsistent with *CEQA Guidelines* Section 15064.3, subdivision (b)?**

**Less than Significant Impact.** On December 28, 2018, the California Office of Administration Law cleared the revised *CEQA Guidelines* for use. Among the changes to the guidelines was removal of vehicle delay and level of service from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated using the metric of VMT. To help aid lead agencies, the Governor's Office of Planning and Research (OPR) produced the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018), which provides guidance about the variety of implementation questions they face with respect to shifting to a VMT metric. Key guidance from this document relevant to estimating VMT impacts from transportation projects includes the following:

- VMT is the most appropriate metric to evaluate a project's transportation impact.
- The effect of a transportation project on vehicle travel should be estimated based on the change in total VMT.

- Transit and active transportation projects generally reduce VMT and are presumed to cause a less-than-significant impact on transportation. This presumption may apply to all passenger rail projects, bus and bus rapid transit project, and bicycle and pedestrian infrastructure projects.

- Streamlining transit and active transportation projects aligns with each of the three statutory goals contained in SB 743 by reducing GHG emissions, increasing multimodal transportation networks, and facilitating mixed use development.

To support VMT analysis of projects, the City of Elk Grove established the following three steps:

- **Step 1 (Project Type):** Determine if the project type is exempt

- **Step 2 (Implementation VMT):** Determine if implementation of the project will result in VMT that exceeds project baseline by using the current version of the City of Elk Grove General Plan (2021a) travel forecasting model.

- **Step 3 (Regional Consistency):** Determine if the project is consistent with regional projects and VMT assumptions as identified by the *2016 Metropolitan Transportation Plan/Sustainable Communities Strategy* (Sacramento Area Council of Governments 2016).

The first step for analyzing VMT pertaining to the proposed Project is to determine if the project type is exempt and presumed to not lead to a substantial or measurable increase in VMT. The City of Elk Grove follows the guidance provided by the OPR in its *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) for making this determination.

The proposed Project would provide expanded transit service in the City of Elk Grove to communities outside of the City which, in turn, would reduce automobile travel and VMT. The OPR guidance, as described above, acknowledges that transit and active transportation projects reduce VMT and are presumed to cause a less than significant impact on transportation. As such, implementation of the proposed Project would not conflict or be inconsistent with *CEQA Guidelines* Section 15064.3, subdivision (b). Impacts would be **less than significant** and no mitigation measures would be required.

**Level of Significance prior to Mitigation:** Less than Significant Impact.

**Regulatory Compliance Measures and Mitigation Measures:** No regulatory compliance measures or mitigation measures would be required.

**Level of Significance after Mitigation:** Not applicable.

#### 4.4.6.3 Geometric Hazards or Incompatible Use

**Threshold 4.4-3: Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

**Less than Significant Impact.** The proposed Project would include the development of a station parking lot, a pedestrian bridge, and a train station within the UPRR right-of-way. Development of the proposed Project would require excavation of the site; delivery or materials, equipment, and personnel; demolition of the existing component of Laguna Self Storage; undergrounding of existing aboveground utilities; construction of the elevator towers/staircase associated with the pedestrian bridge and station platform; and installation of landscaping. Demolition, grading, and building activities would involve the use of standard earthmoving equipment (e.g., loaders, bulldozers, cranes and other related equipment). All construction equipment, including construction worker vehicles, would be staged on the station parking lot component of the Project site for the duration of the construction period to the extent feasible. In addition, large construction equipment would be delivered during off-peak times to reduce travel during peak travel periods. Construction workers are anticipated to drive standard vehicles that would not result in incompatible uses. Therefore, because construction equipment would be staged on site for the duration of the construction period and would be delivered during non-peak hours, Project construction is not anticipated to result in incompatible uses that would increase on-road hazards.

Two access points to the station parking lot would be developed from Dwight Road. The southern driveway access would be developed solely for bus access into the bus bay area on the station parking lot, allowing buses accessing the station parking lot to be separated from motorists accessing the Project site. Another driveway (entry/exit) would be developed just north of the bus driveway, allowing for the entrance/exit of motorists onto the station parking lot and exiting of buses from the station parking lot. This design would allow motorists and buses to be separated in the station parking lot, enhancing safety through circulation design. The station parking lot would be built with drive aisle widths compliant with fire code/fire department access requirements, and pedestrian crosswalks adequately visible by motorists. The driveways to the station parking lot from Dwight Road would be designed to comply with width requirements and visual clearance to ensure access by motorists and buses safely occurs.

The pedestrian bridge developed as part of the Project would connect from the proposed station parking lot to the proposed station platform in the UPRR right-of-way. The proposed Project, to increase safety along the railroad track, would develop a track siding, which would allow both passenger and freight trains to continue to use the UPRR corridor in a safe and efficient manner in the proposed station location. Design, construction, and operation of the proposed Project, including track improvements and station development, would comply with applicable standards from the FRA and/or California Public Utilities Commission (CPUC).

Design approval for specific Project components (i.e., City of Elk Grove for the proposed station parking lot) would be sought from the appropriate agencies as part of detailed design and stages of the proposed Project.

For the reasons described above, implementation of the proposed Project would not substantially increase hazards due to a geometric design feature or incompatible use. Impacts would be **less than significant** and no mitigation measures would be required.

**Level of Significance prior to Mitigation:** Less than Significant Impact.

**Regulatory Compliance Measures and Mitigation Measures:** No regulatory compliance measures or mitigation measures would be required.

**Level of Significance after Mitigation:** Not applicable.

#### 4.4.6.4 Inadequate Emergency Access

**Threshold 4.4-4: Would the Project result in inadequate emergency access?**

**Less than Significant Impact.** Emergency services in the City of Elk Grove include responses from the City of Elk Grove Police Department, Cosumnes Community Services Fire Department, California Highway Patrol, and private ambulance companies. Emergency service personnel currently have access to the existing uses on the Project site as well as the UPRR corridor through two driveways (connecting to Dwight Road) on the parcel occupied by Laguna Self Storage and an unpaved access road (UPRR owned/maintained) on the south side of Laguna Self Storage, which leads to a retention pond and an unpaved access road paralleling the west side of the UPRR corridor.

Construction of the proposed Project could temporarily disrupt or delay emergency access to the Project site. Development of the station parking lot and the new lighted intersection at Dwight Road and the station driveway(s) may disrupt traffic during construction activities resulting in delays of emergency responses to the Project site and nearby areas. During construction, lanes on Dwight Road may be closed; however, a full road closure is not anticipated and therefore detours would not need to be implemented. In the event of an accident or emergency during Project construction, emergency service providers would still be able to access the Project site from Dwight Road at either the driveway leading onto the area where the station parking lot would be developed or via the access road on the south side of Laguna Self Storage (to access the area where the pedestrian bridge and station would be constructed). Furthermore, SJRRC would coordinate with the City of Elk Grove and emergency responders to provide construction schedules, roadway lane closures, and location of construction staging areas, prior to construction to ensure that emergency service providers are aware of construction activities and so they can plan in case an emergency response to the site is required. Furthermore, improvements at the Dwight Road access would be subject to an encroachment permit from the City of Elk Grove, which would include a traffic control plan to address temporary roadway land closures, detour provisions, allowable routes, and alternative access points as required. With these standards in place, construction activities associated with the proposed Project would not result in inadequate emergency access.

Once the Project is constructed and operational, emergency access to the site would be available via either one or two driveways from Dwight Road into the station parking lot and the existing dirt access road south of Laguna Self Storage leading to the UPRR corridor. The station parking lot would be designed with drive aisles that would comply with standard widths to allow for emergency vehicle access and maneuvering. Access to the pedestrian bridge would be via elevators or stairs that emergency service personnel could use to reach the station platform in the UPRR Corridor. The SJRCC would coordinate with the City of Elk Grove in providing site plans of the Project that show access points for emergency services.

Overall, implementation of the proposed Project would not result in inadequate emergency access. Impacts would be **less than significant** and no mitigation measures would be required.

**Level of Significance prior to Mitigation:** Less than Significant Impact.

**Regulatory Compliance Measures and Mitigation Measures:** No regulatory compliance measures or mitigation measures are required.

**Level of Significance after Mitigation:** Not applicable.

# 5.0 OTHER CEQA CONSIDERATIONS

As required by CEQA, this chapter discusses the following types of impacts that could result from implementation of the Project: cumulative impacts; growth-inducing impacts; significant irreversible changes; effects found not to be significant; and significant unavoidable effects.

## 5.1 CUMULATIVE IMPACTS

CEQA defines cumulative impacts as "two or more individual effects, which, when considered together, are considerable, or which can compound or increase other environmental impacts." Section 15130 of the *CEQA Guidelines* requires that an EIR evaluate potential environmental impacts that are individually limited but cumulatively considerable. These impacts can result from the proposed project alone, or together with other projects. The *CEQA Guidelines* state:

> "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

Therefore, cumulative impact analysis is a two-step process. First, it must be determined that the combined impact of the project and other projects is significant, and second, it must be determined that the project's incremental effect is cumulatively considerable (*CEQA Guidelines*, CCR Section 15130[a][2]).

As discussed in the Initial Study provided in **Appendix A**, the Project would have no adverse effects on agricultural and forestry resources, biological resources, cultural resources and tribal cultural resources, energy, geology/soils, greenhouse gas emissions, hazardous materials and wastes, hydrology/water quality, land use and planning, mineral resources, population and housing, public services, recreation, utilities and service systems, and wildfire; therefore, it could not contribute to an overall cumulative effect on any of these resources. If the Project is not expected to contribute to a cumulative effect on a resource, then that resource is not included in the sections below.

Under CEQA, the San Joaquin Regional Rail Commission (SJRRC) is not responsible for mitigating the overall cumulative impact. SJRRC is only responsible for identifying and implementing potentially feasible mitigation to address the proposed Project's considerable contributions to identified significant cumulative impacts. Therefore, the obligation to assess mitigation is limited to the fair-share portion of a significant cumulative impact that is due to the proposed Project's considerable contribution. Other cumulative projects have a similar obligation for their contributions to significant cumulative impacts.

### 5.1.1 Methodology

When evaluating cumulative impacts, CEQA requires the use of either a list of past, present, and probable future projects, including projects outside the control of the lead agency, or a summary of projections in an adopted planning document, or some reasonable combination of the two approaches. This analysis is based on a list of active transportation and development projects in the City of Elk Grove and Sacramento County. The proximity of projects under consideration for cumulative impacts varies depending on the environmental resource. For example, air quality impacts are regional and local in nature, and are regulated by California's 15 regional air districts. The proposed Project is located in the Sacramento Valley Air Basin. Meteorological and topographical factors generally limit criteria pollutant mixing across air basin boundaries. Other resources, like aesthetics, noise, and transportation, would have much more restricted potential impacts. **Table 5.1-A: Geographic Scope of Cumulative Impacts**, below, describes the geographic areas considered for the resources under discussion:

**Table 5.1-A: Geographic Scope of Cumulative Impacts**

| Resource Area | Geographic Area |
|---|---|
| Aesthetics | Project corridor and vicinity |
| Air Quality | Pollutants: Sacramento Valley Air Basin<br>Toxic air contaminants: Project corridor and immediate vicinity |
| Noise | Project site and surrounding areas |
| Transportation | Roadways affected by project traffic |

Source: Data compiled by LSA in 2021

For the purposes of this EIR, a list of past, present, and probable future projects is used in the evaluation of potential cumulative impacts. All proposed, recently approved, under construction, and reasonably foreseeable projects that could produce a related or cumulative impact on the local environment when considered in conjunction with the proposed Project are evaluated in an EIR. An analysis of the cumulative impacts associated with these projects and the proposed Project is provided in the cumulative impacts discussion in Section 5.1.2. **Table 5.1-B: Summary of Cumulative Projects** shows the name location status and description of each of the cumulative projects included in this analysis. **Figure 5.1-1: Location of Cumulative Projects** shows the location of the cumulative projects compared to location of the proposed Project.

LSA

LEGEND

- Project Site - (36.27 ac)
- Elk Grove City Limits
- Private Projects
- City Projects
- County Projects

0 0.5 1
MILES

SOURCE: Basemap - Sacramento Regional GIS Coop (03/2018); Mapping - City of Elk Grove (2021)

I:\MKT2104\GIS\MXD\cumulative_projects.mxd (9/22/2021)

FIGURE 5.1-1

*San Joaquin Regional Rail Commission*
*Elk Grove Station Project*
*City of Elk Grove, Sacramento County, Ca*

Location of Related Projects

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## Table 5.1-B: Summary of Cumulative Projects

| Cumulative Project Number | Proponent Project Number | Project Name | Location | Status | Project Description |
|---|---|---|---|---|---|
| **City of Elk Grove** | | | | | |
| 1 | WFC046 | Complete acquisition, design, and tenant improvements for the new Elk Grove (Old Town) Library | 9260 Elk Grove Boulevard | In process | Complete acquisition of 9260 Elk Grove Boulevard and prepare schematic design of the relocated Elk Grove Library Branch. |
| 2 | WTR014 | Kammerer Road Two-Lane Extension I-5 to Bruceville Road | | Design | This project will construct a 2-lane Kammerer Road extension including a grade separated crossing at the Union Pacific Railroad (UPRR) tracks and modifications to the I-5 Hood Franklin Interchange. The project also includes the extension of Willard Parkway to Kammerer Road; right-of-way will be secured for the 2-lane project and 4-lane right of way will be preserved where feasible. |
| 3 | | Elk Grove Boulevard Streetscape Phase 2, School Street to Waterman Road | | In process | Widening of Elk Grove Boulevard including a 2-way left turn lane, 2 travel lanes, buffered bike lanes and curb gutters, sidewalks, and frontage improvements. Also includes utility undergrounding. |
| 4 | WTR094 | Expand traffic signal communication network and increase bandwidth to improve signal synchronization and traffic operations and reduce congestion | City of Elk Grove | Not started | Complete upgrades to traffic signal cabinets and connection to fiber optic and/or cellular service. |
| 5 | | Implement adaptive traffic signal control pilot project | Elk Grove Boulevard from Elk Grove-Florin Road to Bruceville Road. | Not started | Upgrade equipment and traffic operations software and deploy a pilot adaptive traffic signal program for Elk Grove Boulevard from Elk Grove-Florin Road to Bruceville Road. |
| 6 | WAM015 | Support Regional Transit's efforts to extend Light Rail (LRT) to the City | | In process | Planning for an extension of Light Rail services into the City. |
| 7 | | Undertake efforts to advance the development of Project Elevate, creating a mixed-use neighborhood at the City property at Big Horn and Elk Grove Boulevard. | 20-acre property at the southeast corner of Elk Grove Boulevard and Big Horn Boulevard | In process | Outreach to potential development partners and explore partnership opportunities to develop the site consistent with the established vision. |
| 8 | WFC041 | Complete construction of the Police Department Campus improvements and expansion. | 9362 Studio Court | In process | Construction of improvements at 9362 Studio Court for relocation of Property and Evidence and Forensics. |
| 9 | | Elk Grove Pavement Management Program | Citywide | In process | Identify opportunities to extend pavement management efforts with existing limited resources and identify new resources that could improve and expand the program. |
| 10 | | California Northstate University Hospital | Elk Grove Boulevard, West Taran Drive, and Riparian Drive (APNs 132-2480-001, -002, -003, -004, -005, -007, -008, -010, -011, 132-2160-001, -002, 132-0460-076) | Denied by Planning Commission | The project includes a new teaching hospital, several parking structures with ground floor commercial space, a medical office building, an outpatient clinic, and a student dormitory. |
| 11 | | Dignity Health Hospital | Southwest corner of Elk Grove Boulevard and Wymark Drive (APNs 132-2120-006 and -008) | Design and Permitting | The project includes construction of up to a six-story, 456,719-square-foot, 330-bed hospital; a three-story, 65,000-square-foot medical office building; a five-level, 169,520-square-foot parking structure; and additional supporting facilities for the hospital. |
| 12 | | Lent Ranch Marketplace | Northwest corner of Kammerer Road and State Route 99 | | The project includes approximately 295 acres for regional retail, office, and entertainment uses. |
| 13 | | Small Cell Telecommunication Facilities | Various locations citywide | Permitting | The project includes the installation of Small Cell Wireless Communication Facilities on certain Municipal Facilities located in the City's right-of-way. |
| 14 | | Wilton Rancheria Casino Resort Project | Northwest portion of the intersection of Grant Line Road and State Route 99 | Construction | The project includes the development of 36 acres of land for a casino resort project. |
| 15-18 | WAM010 | Pedestrian Crossing Upgrades at 4 Locations | Laguna Creek Trail between Adobe Spring Way and Elk Spring Way<br>At Betschart Park<br>At Kloss Park/Pederson Park Panhandle<br>Stonebrook Drive/Bond Ridge | Planning | This project will install curb ramps, crosswalks, advance yield signs, Rapid Rectangular Flashing Beacons (RRFBs) and, associated advanced warning signs. |

## Table 5.1-B: Summary of Cumulative Projects

| Cumulative Project Number | Proponent Project Number | Project Name | Location | Status | Project Description |
|---|---|---|---|---|---|
| 19 | WCE020 | Recycled Water Transmission Line | Whitelock Parkway | Planning | Initial funding is included for planning, pipe sizing and siting, and cost estimating. Full design and construction would be timed to coincide with the Echo Water Project/South County Ag Project. A connection to the Echo Water Project/South County Ag Project is needed to supply recycled water. |
| 20 | WCC002 | Aquatics Center and Civic Center Commons Site | Civic Center Drive and Big Horn Boulevard | Construction | The project will provide design and construction of a competitive and recreational aquatics center with an Olympic size pool, a 6-lane multi-use second pool, a recreational pool with water slides and interactive play area, seating, support buildings including offices, meeting rooms, restrooms, storage, and concession stand. Site improvements that also support the Community & Senior Center (Project WCC010) are included as part of the construction of this facility. |
| 21 | WCE028 | District 56 Nature Area | Lotz Parkway and Big Horn Boulevard | Construction | This project will construct a passive recreational site in the remaining 30-acre undeveloped site at the Civic Center South property along with expansion of the west and east parking lots. |
| 22 | WCE009 | Oasis Park, Community Building | Poppy Ridge Road, Knotts Drive, Whitelock Parkway, Triplefin Way | Design | This project will construct an approximately 4,200-square-foot community building within Oasis Park. |
| 23 | WTL019 | Laguna Creek Trail and Bruceville Road Sidewalk Improvements | Laguna Creek Trail and Bruceville Road | Planning | This project will construct a new 10-foot-wide maintenance road/Class I Bikeway along Laguna Creek, close gaps in sidewalks along Bruceville Road by constructing 5-foot-wide pedestrian path/sidewalks along Bruceville Road (from south of Sheldon Road to Big Horn Boulevard and between south of Di Lusso Drive and north of Laguna Boulevard) with a portion of the paths widened to 8 feet to connect users from the new trail west of Bruceville Road to the existing sidewalk on the bridge south of Sheldon Road. |
| 24-27 | WTR059 | Guardrail Replacement at 4 locations | Bruceville Road overpass at Laguna Creek<br>Sheldon Road overpass at Laguna Creek<br>Waterman Road overpass at Laguna Creek<br>At Laguna Creek Tributary 1 | Planning | This project will replace guardrail at four locations. |
| 28 | WAM009 | Laguna Creek Trail and West Stockton Boulevard Multi Modal Improvements | Lewis Stein Road and West Stockton Boulevard | Planning | This project will resurface approximately 2,800 feet of Class I multi-use trail parallel and south of West Stockton Boulevard and would replace 34 non-compliant ADA curb ramps, install detectable warning surfaces at commercial driveways along Lewis Stein Road. The Project may include a pedestrian activated beacon system at Michener Way and West Stockton Boulevard near Pinkerton Park should additional funding become available. |
| 29 | WDR018 | Laguna Creek & Whitehouse Creek Multi-Functional Corridor Project | Laguna Creek and Whitehouse Creek | Planning | This project will consist of three phases of construction of a 2.2-mile reach along Laguna and Whitehouse Creeks. Phase I will construct a maintenance access road (paved with no striping) for access to Laguna and Whitehouse Creeks. Phase II will transition the maintenance access road to a Class 1 multi-use trail. Phase III will preserve, rehabilitate and enhance the creeks and adjacent wetlands. |
| 30 | WTL011 | Elk Grove Creek Trail Gap Closure | Laguna Springs Road and Elk Grove Creek | Planning | This project will construct a new Class I Bikeway along the south side of Elk Grove Creek and add bicycle lanes along Laguna Springs Drive. |
| 31 | WPR014 | Arterial Roads Rehabilitation and Bicycle Lane Improvements | Waterman Road and Elk Grove-Florin Road | Design | The project will rehabilitate or resurface pavement on portions of Waterman Road and Elk Grove-Florin Road and provide class II bike lanes. Also included are a mid-block pedestrian crossing along Elk Grove-Florin Road and a new sidewalk along one section of the west side of Waterman Road. |
| 32 | WTR012 | Old Town Area Streetscape Phase 2 | Elk Grove Boulevard | Design | This project will widen Elk Grove Boulevard to provide a two-way left turn lane, two travel lanes, buffered bike lanes, curb gutter sidewalk and frontage improvements. The project also includes utility undergrounding, and the installation of a traffic signal at the intersection of Elk Grove Boulevard and Kent Street. |
| 33 | WDR044 | Adams Tract No. 2 Drainage Improvements | Adams Street, Eva Avenue, Kamari Street, Truman Street | Planning | This project will construct improvements to correct drainage issues. |
| 34 | FM2106 | District 56 Signage | Lotz Parkway and Big Horn Boulevard | Construction | The project will add District 56 signage at select locations within District56. |
| 35 | WCE010 | Singh and Kaur Park | Ponta Delgada Drive and Atrio Circle | Construction | This project will construct the Madeira East Central neighborhood park of approximately 5 acres. |
| 36 | WTR009 | Whitelock Parkway/State Route 99 Interchange Project | Whitelock Parkway and State Route 99 | Planning | This project will construct a new interchange on State Route 99 with a bike/pedestrian crossing, realignment or modifications to East Stockton Boulevard and widening of Whitelock Parkway. The Project includes environmental clearance on high occupancy vehicle lanes and auxiliary lanes on State Route 99. The project will complete the environmental document, final design and right of way prior to programing the remaining funds. |

## Table 5.1-B: Summary of Cumulative Projects

| Cumulative Project Number | Proponent Project Number | Project Name | Location | Status | Project Description |
|---|---|---|---|---|---|
| 37 | WTR017 | Kammerer Road Reconstruction Bruceville Road to Lotz Parkway | Kammerer Road | Construction | This project will reconstruct the existing Kammerer Road in its ultimate location with a median and one traveled lane and shoulder in each direction. Transition to existing undivided Kammerer Road west of Rau Road. Conform to the east by extending the divided section to 1000 feet east of Lent Ranch Parkway. Three intersections to be included are at Lotz Parkway, Collector 1, and Big Horn Boulevard. |
| 38 | WAC026 | Elk Grove-Florin Road and Elk Grove Park Sidewalk Infill | Elk Grove-Florin Road | Construction | This project will eliminate sidewalk gaps in the sidewalk network along the east side of Elk Grove-Florin Road; as well as improve ADA access, bicycle and pedestrian crossings (Lismore Drive; Valley Oak Drive). The project includes an educational component provided by the Elk Grove Unified School District (EGUSD) for adjacent schools. EGUSD will manage the non-infrastructure grant portion to encourage more pedestrian and bicycle use for students commuting to/from Florence Markofer Elementary School, Joseph Kerr Middle School, and Elk Grove High School. |
| 39 | WPR014 | Arterial Roads Rehabilitation and Bicycle Lane Improvements | Waterman Road and Elk Grove-Florin Road | Design | The project will rehabilitate or resurface pavement on portions of Waterman Road and Elk Grove-Florin Road and provide class II bike lanes. Also included are a mid-block pedestrian crossing along Elk Grove-Florin Road and a new sidewalk along one section of the west side of Waterman Road. |
| 40 | WTR002 | Grant Line Road Widening Phase 2 (Waterman to Bradshaw) | Grant Line Road | Construction | This project will widen Grant Line Road from 2 to 4 lanes from Waterman Road to Bradshaw Road including signal installation at Mosher Road and Bradshaw Road. |
| 41 | WTR028 | Grant Line Road - Sheldon Area Precise Roadway Plan | Citywide | Planning | This project will complete a Precise Roadway Plan to determine the preferred access, potential impacts and preserve right of way for the future widening of Grant Line Road in the Sheldon area. Previous efforts by the Connector JPA have identified several configurations of roadway improvements, but this study will refine those ideas, with input of the property owners, residents, and business owners into one cohesive design concept. |
| 42 | WTR094 | Citywide Traffic Signal Enhancement and Congestion Relief Project | Citywide | Planning | This project will result in upgrades to the City's traffic signal communication network with added fiber optic lines and signal connections, and enhanced copper Ethernet switches. The project will include improvements at 76 intersections by adding video detection, replacement of traffic signal backplates with reflective yellow ones, and replacement of 8-inch signal heads with 12-inch heads. Will also include an adaptive traffic signal corridor on Elk Grove Boulevard from Backer Ranch Road to Elk Grove-Florin Road. |
| 43 | WAM006 | Bicycle Pedestrian and Trails Master Plan Update | Citywide | Planning | This project would be an update to the 2014 Bicycle Pedestrian and Trails Master Plan Update and may be combined with an Active Transportation Plan. |
| **Private Development Projects in the City of Elk Grove** | | | | | |
| 44 | 2 | Bruceville Point | 9730 Backer Ranch Road | Recently Completed | The 163,832-square-foot, three-story residential care facility for the elderly includes 20 rooms for memory care and 117 assisted living rooms. |
| 45 | 3 | Fieldstone North and South | South of Mainline Drive between Wyland Drive and Grant Line Road | Construction | Fieldstone North includes 391 homes, one park lot, and one open space/preserve lot. Street improvements are nearly complete and the construction of single-family homes has begun. Fieldstone South includes 131 single-family lots on 28 acres at the south end of the East Elk Grove Specific Plan. |
| 46 | 4 | The Park Senior Housing – The Gardens at Laguna Springs | SW Corner of Laguna Springs Drive and Civic Center Drive | Construction | The Park is a new senior housing, residential care facility for the elderly with memory care services on an 11.4-acre site located at the southwest corner of Laguna Springs Drive and Civic Center Drive within the Laguna Ridge Specific Plan Area. The project will provide over 105 units of age-restricted housing including separate independent living cottages and a 70-bed memory care facility. |
| 47 | 5 | The Ridge Shopping Center | SW Corner of Bruceville Road and Elk Grove Boulevard | Construction | Approved in the Spring of 2016, The Ridge Shopping Center and the adjacent Costco are located on 40 acres at the southeast corner of Bruceville Road and Elk Grove Boulevard. Approvals for The Ridge included 14 pad buildings totaling approximately 230,000 square feet; some of those including a drive-through service. Vehicle and pedestrian access are provided throughout the center. |
| 48 | 6 | Madeira South (Poppy Lane) | North and South of Poppy Ridge Road | Construction | Located within the 1,900-acre Laguna Ridge Specific Plan, the Madeira South project approved 460 new single-family lots. Home construction began in Spring of 2019. |
| 49 | 7 | Sterling Meadows | North of Kammerer Road, ½ Mile West of Grant Line Road | Construction | Sterling Meadows consists of 200 acres located on the north side of Kammerer Road approximately one-half mile west of Grant Line Road. It allows for the development of up to 1,184 residential units, including 984 single-family lots and includes two park sites totaling about 18.5 acres. Several phases are currently under construction offering a variety of housing types. |

## Table 5.1-B: Summary of Cumulative Projects

| Cumulative Project Number | Proponent Project Number | Project Name | Location | Status | Project Description |
|---|---|---|---|---|---|
| 50 | 8 | Milestone | South of Charolais Way East of Waterman Road | Construction | Milestone will be a new residential community featuring all single-story house plans. The site totals 50 acres with an 11-acre school site, a 4-acre park site and 10 acres of open space. Up to 121 new homes will be built on the site. |
| 51 | 9 | Towneplace Suites | West of E. Stockton Boulevard, between Bond Road and Elk Grove Boulevard | Construction | The Towneplace Suites Hotel is a four-story, 112-room, 63,560-square-foot hotel located along the west side of East Stockton Boulevard, between Bond Road and Elk Grove Boulevard. |
| 52 | 10 | Sheldon Terrace | South of Sheldon Road, West of Highway 99 | Construction | Up to 175 new homes will be constructed in Sheldon Terrace. |
| 53 | 11 | Calvine Pointe | 8854 Calvine Road | Construction | Build-out of the existing Calvine Pointe Shopping Center with four new buildings totaling approximately 104,000-square feet of commercial uses. |
| 54 | 12 | Shell with 7-Eleven & Storage Facility | 9291 Bond Road | Approved | A request for a Conditional Use Permit, Major Design Review, and Lot Merger for a 12 pump gas station, and new self-storage facility |
| 55 | 13 | Poppy Keys Southeast | South Side of Poppy Ridge Road | Plan Review | A request to subdivide approximately 67 acres into 326 single-family residential lots. |
| 56 | 14 | Poppy Keys Southwest | South Side of Poppy Ridge Road | Approved | A request to subdivide approximately 61 acres into 267 single-family residential lots. |
| 57 | 15 | Sheldon Farms North | South of Sheldon Road between Bruceville Road and Lewis Stein Road | Construction | A request to subdivide approximately 79 acres in order develop approximately 55 acres with up to 391 single-family residential units; approximately 5.3 acres with up to 126 multifamily residential units; approximately 5.3 acres of commercial; and approximately 10 acres of parks and open space. |
| 58 | 16 | Elk Grove Muslim Center | 9011 Elk Grove Florin Road | Plan Review | A Conditional Use Permit Amendment and a Major Design Review to expand the existing mosque. The expansion request includes a new 18,400-square-foot assembly building. |
| 59 | 17 | New Faze Skilled Nursing | Lotz Parkway | Approved | A request for a Conditional Use Permit and Major Design Review for a new approximately 75,350-square-foot 120-bed rehabilitation and medical services facility. |
| 60 | 18 | Creekside Estates | 9350 Bond Road | Approved | A request to subdivide approximately 9 acres into 14 single-family residential lots. This request requires a Rezone from Agricultural-Residential (AR-5) to Low Density Residential (RD-4). |
| 61 | 19 | S&J Storage | 8973 Elk Grove Florin Road | Plan Review | A request for a Major Design Review to construct a new self-storage facility with associated storage yard. |
| 62 | 20 | Shell Gas Station | 8607 Elk Grove Boulevard | Construction | A request for a Conditional Use Permit Amendment and Major Design Review for a new gas station, convenience store, fuel canopy, and car wash on a developed site. The existing gas station building and fuel canopy will be demolished and the site re-graded as part of the Project. |
| 63 | 21 | Tegan Estates | 5201 Tegan Road | Plan Review | A request to subdivide 3 existing parcels totaling approximately 11.6 acres into 41 parcels and one remainder lot for residential development. |
| 64 | 22 | Candlewood Hotel | 9180 Klagge Court | Approved | A request for a Major Design Review for a new 104-room Candlewood Hotel. |
| 65 | 23 | Cafeteria Expansion | 2521 Laguna Boulevard | Approved | Design Review for the construction of a new 9,817-square-foot kitchen and cafeteria with an unattached 2,436-square-foot patio. |
| 66 | 24 | Bruceville Meadows Residential | 10425 Bruceville Road | Construction | Residential construction in the 331-lot Bruceville Meadows Subdivision. A total of 10 floor plans are proposed ranging from 2,163 to 4,254 square feet. |
| 67 | 25 | Dust Bowl Brewery | 9676 Railroad Street | Construction | Construction of a new outdoor patio with canopy for the historic warehouse at 9676 Railroad Street and rehabilitation of the historic warehouse. |
| 68 | 26 | Crooked Creek Industrial Park | 9846 Waterman Road | Approved | Tentative Parcel Map (TPM) to subdivide an approximately 16-acre parcel into four lots for future light industrial use. |
| 69 | 27 | Eden Gardens Banquet Hall | 8434 Bradshaw Road | Plan Review | A request for a Conditional Use Permit for an event center located within an existing 18,297-square-foot building. |
| 70 | 28 | Buffalo Wild Wings | 7490 Elk Grove Boulevard | Approved | A request for a Minor Design Review for a new freestanding full-service sit-down dine-in restaurant along with minor site improvements. |
| 71 | 29 | Kent Street Addition | 9730 Kent Street | Plan Review | A request to construct an 8,000-square-foot addition to an existing 4,800-square-foot building. |
| 72 | 30 | Vineyard at Madeira Pad #E | 10065 Bruceville Road | Approved | A request to construct a new 3,165-square-foot retail/commercial building in the Vineyard at Madeira Shopping Center. This request includes Design Review and a Conditional Use Permit for a drive-through use. |
| 73 | 31 | U-Haul | 10261-10277 E. Stockton Boulevard | Approved | Conditional Use Permit and Major Design Review for the construction of a new three-story, 122,364-square-foot U-Haul personal storage facility. |

## Table 5.1-B: Summary of Cumulative Projects

| Cumulative Project Number | Proponent Project Number | Project Name | Location | Status | Project Description |
|---|---|---|---|---|---|
| 74 | 32 | Fortune School | Bilby Road and McMillan Road | Construction | Conditional Use Permit and Major Design Review to construct the Fortune Charter School on approximately 8.5-acres. The new school is designed to accommodate up to 800 students. |
| 75 | 33 | Mendes Subdivision | Bilby Road | Construction | A tentative subdivision map to subdivide approximately 80 acres into 216 single family residential lots, two office lots, a school lot, a park lot, and other lots for drainage, greenway, and landscaping. |
| 76 | 34 | Toscano Apartments | Laguna Court | Approved | Major Design Review for a 206-unit apartment complex. |
| 77 | 35 | The Ridge Pad 10 – Starbucks | Elk Grove Boulevard | Recently Completed | Minor Design Review for a new 3,561-square-foot retail building with a drive-through lane within The Ridge Shopping Center. |
| 78 | 36 | California Northstate University Medical Center | W Taron Court | Plan Review | The California Northstate University Medical Center encompasses approximately 25-acres of property currently developed with a mix of commercial and office uses, as well as the existing university campus. The proposed project includes a new teaching hospital, several parking structures with ground floor commercial space, a medical office building, and a student dormitory. |
| 79 | 37 | Capital Reserve Commercial Center | Oak Reserve Lane | Recently Completed | Four new single-story commercial buildings totaling 27,100 square feet. |
| 80 | 38 | Laguna Main Street Apartments | Laguna Main Street | Plan Review | Major Design Review for a 150-unit apartment complex. |
| 81 | 39 | Dignity Health Medical Campus | 8220 Wymark Drive | Approved | Project approvals include a six-story, 456,719-square-foot, 330-bed hospital; a three-story, 65,000-square-foot medical office building (referred to as MOB #2); a five-level, 169,520-square-foot parking structure; and supporting facilities for the hospital. |
| 82 | 40 | Laguna Springs Corporate Center – Building A | SE Corner of Big Horn Boulevard and Longleaf Drive | Plan Review | A request to construct a new four-story, 146,000-square-foot office building. |
| 83 | 41 | McGreary Ranch | South Side of Poppy Ridge Road; East of Bruceville Road | Construction | Single-family residential subdivision with 227 lots. |
| 84 | 42 | GreenSpace Self Storage Facility | E. Stockton Boulevard | Approved | Three story 133,200-square-foot storage facility. |
| 85 | 43 | Hotel at Sheldon Place | South of Sheldon Road, on E. Stockton Boulevard | Plan Review | New Courtyard by Marriot Hotel. |
| 86 | 44 | Elk Grove Independent Senior Housing | Elk Grove Boulevard at Waterfowl Drive | Approved | 165,344-square-foot Senior Independent Community with Services - 142 units with parking, outdoor activities. |
| 87 | 45 | Bond Road Rezone and Tentative Map | 10087 and 10069 Bond Road | Approved | A request to rezone two existing parcels (10 acres) from AR-5 to AR-2 and a tentative map to subdivide into 4 parcels. |
| 88 | 46 | Target Exterior Remodel | 7505 Laguna Boulevard | Approved | A Minor Design Review for façade improvements to an existing Target Retail Store. Proposes changes include new paint treatment to the building exterior elevations, columns, lattices, and trellises. |
| 89 | 47 | Laguna Crossroads Major E. | 7401 Laguna Boulevard | Recently Completed | Demo an existing building to construct three buildings for three future commercial tenants within the same footprint. |
| 90 | 48 | 8633 Bader Road Map | 8633 Bader Road | Plan Review | A tentative map to subdivide 1 parcel into three parcels. |
| 91 | 49 | AAA Services Building | North of intersection of Bruceville Road and Laguna Boulevard | Approved | Minor Design Review for a new automotive service and retail building. The Project also includes a Minor Deviation to allow for reduced parking on site as well as a Tree Permit to remove 2 protected trees. |
| 92 | 50 | Waterman Brinkman Logistics Center | 9195 Brinkman Court | Plan Review | Major Design Review for 2 industrial/flex buildings on separate parcels. Building A will be approximately 252,547 square feet and Building B will be approximately 171,140 square feet. |
| 93 | 51 | Trojan Storage II | NW Corner of Big Horn Boulevard and Lewis Stein Road | Approved | Conditional Use Permit and Major Design Review for new mixed use facility that includes a personal storage facility and flex-warehouse spaces consisting of 3 buildings. |
| 94 | 52 | Arco AM/PM Car Wash Expansion | 9590 Harbour Point Drive | Approved | N/A |
| 95 | 53 | 10075 Sheldon Road Tentative Parcel Map | 10075 Sheldon Road | Plan Review | A Tentative Parcel Map to subdivide an approximately 35.5-acre parcel into 4 lots and a remainder lot. |
| 96 | 54 | Sheldon Park Estates North Gated Community | 4959 Sheldon Road (28 Parcels North) | Approved | General Plan Amendment to request the Sheldon Park Estates Subdivision be removed from the GP Policy- RA-1-8. |
| 97 | 55 | Sheldon Grove Subdivision | NE Corner of Sheldon Road and Power Inn Road | Approved | General Plan Amendment from Community Commercial (CC) to Low Density Residential (LDR), a Rezone from General Commercial (GC) to RD-7, and a Tentative Subdivision Map to subdivide one parcel into 123 single family residential lots. |

## Table 5.1-B: Summary of Cumulative Projects

| Cumulative Project Number | Proponent Project Number | Project Name | Location | Status | Project Description |
|---|---|---|---|---|---|
| 98 | 56 | Madeira South Lot A Master House Plans | NW intersection of Poppy Ridge Road and Big Horn Boulevard | Construction | Design Review for Master House Plans in the Madeira South Lot A Subdivision. |
| 99 | 57 | The Gardens at Quail Run | South Side of Quail Run Lane and Tuzza Court Intersection | Construction | New 96-unit multi-family apartment development. |
| 100 | 58 | Quail Run II | South Side of Quail Run Lane and Tuzza Court Intersection | Approved | Minor Design Review and Special Parking Permit for a 108-unit apartment complex, along with associated site improvements including parking and landscaping. |
| 101 | 59 | Seasons at Stonebrook Master Home Plan | Bilby Road and Angsley Drive | Approved | Design Review for Master House Plans for 102 lots in the Mendes Property Subdivision. |
| 102 | 60 | In-N-Out Burger – The Ridge Pad 14 | 7620 Elk Grove Boulevard | Plan Review | Conditional Use Permit Amendment and Minor Design Review for a new In-N-Out Burger with a drive-through at The Ridge Shopping Center. |
| 103 | 61 | Elk Grove Food Bank | 9888 Kent Street | Approved | Minor Design Review to construct a new 9,900-square-foot building. |
| 104 | 62 | Elk Grove Masonic Lodge | 9257 Elk Grove Boulevard | Approved | Conditional Use Permit to allow assembly use in the OT-SPA zoning district and an Old Town Type 1 Design Review for exterior and interior improvements to an existing building as well as other site improvements. |
| 105 | 63 | Life Storage Expansion | 9800 Dino Drive | Plan Review | Major Design review to add a new three-story, 55,367-square-foot storage building and RV storage to an existing personal storage facility |
| 106 | 64 | Mendes Villages 2 & 3 | Bilby Road and McMillan Road | Plan Review | Master House Plan Design Review for the construction of 114 new single-family homes. |
| 107 | 65 | T-Mobile Jones Family Park | 8840 Shasta Lilly Drive | Approved | A request to add three new antennas to an existing cellular tower. |
| 108 | 66 | Raising Cane's Restaurant | 9164 E. Stockton Boulevard | Construction | A Minor Design Review for the construction of a new 3,162-square-foot restaurant with a drive-through, outdoor patio, associated parking, landscaping, and lighting improvements. |
| 109 | 67 | Burger King Remodel | 8637 Elk Grove Boulevard | Approved | A Conditional Use Permit Amendment for site improvements to expand the drive-through to two lanes and a Minor Design Review for exterior building improvements for an existing Burger King Restaurant. |
| 110 | 68 | T-Mobile Evergreen Springs | 8280 Elk Grove Boulevard | Approved | A Conditional Use Permit (CUP) to install a wireless communications facility on the rooftop of the Evergreen Springs by Wedgewood Weddings Event Center. The antenna equipment will be screened from public view with a 10-foot-tall Fiber Reinforced Plastic (FRP) screen wall, whereas the equipment cabinets will be screened behind the existing building's parapet walls. |
| 111 | 69 | Warda Warehouse 3 | 10237 Iron Rock Way | Plan Review | A Major Design Review to construct a 18,200-square-foot industrial building. |
| 112 | 70 | 8580 Bradshaw Road | 8580 Bradshaw Road | Plan Review | A tentative parcel map to subdivide 8.63 acres into 5 parcels and abandon a 40-foot right-of-way easement. |
| 113 | 71 | Sheldon Farms MHP | South of Sheldon Road between Bruceville Road and Lewis Stein Road | Plan Review | Master House Plan Design Review for the construction of new single-family homes. |
| 114 | 72 | Tractor Supply Company | Intersection of Grant Line Road and Waterman Road | Plan Review | Major Design Review for a new 22,136-square-foot retail store with 16,602 square feet of outdoor display/sales area. |
| 115 | 73 | Grant Line Construction Aggregate Production and Recycling Facility | 10000 Waterman Road | Plan Review | Conditional Use Permit and Major Design Review to construct and operate an aggregate materials production and recycling facility on a 25-acre site. |
| 116 | 74 | Bartholemew Vineyard Amendment | 9696 Elk Grove Boulevard | Approved | Conditional Use Permit Amendment to add wine tasting to an existing winery. |
| 117 | 75 | Triangle Point TSM Phase 2 | SW Corner of Mosher Road and Grant Line Road | Plan Review | Tentative Subdivision Map to develop 65 medium density residential lots. |
| 118 | 76 | Mountain Elk Villas | 8668 Poppy Ridge Road | Plan Review | Major Design Review to add a new 174-unit high density 100 percent affordable housing development. |
| 119 | 77 | 8651 Bader Road TPM and Rezone | 8651 Bader Road | Plan Review | Tentative Parcel Map and Rezone to subdivide one parcel into four parcels and rezone from AR-5 to AR-2. |
| 120 | 78 | 10069 Elk Grove Florin Road TPM | 10069 Elk Grove Florin Road | Plan Review | Tentative Parcel Map to subdivide one lot into three new lots. |
| 121 | 79 | Bow Stockton Apartments | 8676 Bow Street and 8717 E. Stockton Boulevard | Plan Review | Design Review, General Plan Amendment and Rezone to construct a new 120-unit affordable housing project. Rezone from RD-6 to RD-25 to allow a high density apartments. |
| 122 | 80 | Telos Greens TSM and Rezone | South of Bilby Road just east of Montaria Way in the Southeast Policy Area | Plan Review | Tentative Subdivision Map to create 85 single-family residential lots on approximately 26.2 acres and a Specific Plan Amendment and Community Plan Amendment for minor changes to land uses. |

## Table 5.1-B: Summary of Cumulative Projects

| Cumulative Project Number | Proponent Project Number | Project Name | Location | Status | Project Description |
|---|---|---|---|---|---|
| 123 | 81 | Laguna West Plaza Pads 1 & 2 | Southeast corner of Laguna Boulevard and Laguna Main Street | Approved | Minor Design Review for two retail pad buildings totaling ±9,290 square feet within the existing Laguna West Plaza commercial center. |
| 124 | 82 | Wendy's Remodel | 9120 Harbour Point Drive | Approved | Minor Design Review for exterior building improvements for an existing restaurant. |
| 125 | 83 | Kubota Tractor Corporation | 10251 Grant Line Road | Approved | Conditional Use Permit for "manufacturing, minor" use and a Major Design Review for a new approximately 701,465-square-foot building and associated site improvements. |
| 126 | 84 | Wienerschnitzel | 9689 E. Stockton Boulevard | Construction | A new 1,816-square-foot Wienerschnitzel restaurant with a drive-thru. |
| 127 | 85 | Quick Quack Calvine | 9670 Calvine Road | Recently Completed | A new 3,590-square-foot carwash with 23 vacuum stations. |
| 128 | 86 | Elk Grove Apartments | Southwest corner Harbour Point Drive and Maritime Drive | Plan Review | Minor Design Review for one 3-story apartment building with 50 units for affordable housing and over 50% of the units being reserved for permanent supportive housing. |
| 129 | 87 | The Lyla | Northwest corner of Laguna Boulevard and Bruceville Road | Plan Review | Major Design Review for an apartment complex with 294 affordable units. The Project includes 13 three-story buildings as well as a community room, gym, and swimming pool. The Project also includes a Special Parking Permit for reduced parking. |
| 130 | 88 | Elk Grove Power Sports Canopy | 10297 E. Stockton Boulevard | Plan Review | The Project consists of a Minor Design Review for new canopy in the rear of the building. |
| 131 | 89 | Clark Brothers Industrial Development | Southwest corner of Elkmont Way and Iron Rock Way | Plan Review | The Project consists of a Major Design Review for the construction of two 12,000-square-foot buildings one 11,600 square-foot building, along with associated site improvements. |
| 132 | 90 | 10221, 10265 Sheldon Road Tentative Parcel Map | Northeast corner of Sheldon Road and Mackey Road | Plan Review | A Tentative Parcel Map to subdivide 2 existing parcels into four parcels with a minimum lot size of two (2) acres. |
| 133 | 91 | 9840 Farris Lane Rezone and Tentative Parcel Map | 9840 Farris Lane | Plan Review | A Rezone from AR-5 to AR-2 and a Tentative Parcel Map to subdivide 2 existing parcels into three (3) parcels with a minimum lot size of two (2) acres. |
| 134 | 92 | Elliott Springs | North Side of Bond Road 500 feet west of Waterman Road | Construction | A new 230-acre residential community with up to 660 single-family residences and up to 125 assisted living units. |
| 135 | 93 | Tuscan Ridge West | South Side of Poppy Ridge Road 2,000 feet east of Bruceville Road | Construction | A new 20-acre subdivision with 100 single-family homes. |
| 136 | 94 | McGeary Ranch Village 2 | East side of Bruceville Road at Machado Ranch Drive | Construction | A new 33-acre subdivision with up to 241 single-family homes |
| **Sacramento County** | | | | | |
| 137 | PLNR2021-00282 | Scotts Miracle-Gro Elk Grove | Delta Community (APN 132-0240-078) | Pending | A research request to confirm that Use Permit 83-UPP-0566 can or cannot be utilized as a current use permit for the facility located at the intersection of Carroll Road and Eschinger Road, and to confirm the zoning designation for the site and the permitting. |
| 138 | PLNR2019-00074 | Chima's Towing Zoning Verification | Delta Community (APN 132-0140-018) | Closed | A zoning verification letter for the nonconforming use, storage of towed vehicles, in the GC zone. |

Source: City of Elk Grove 2021, Sacramento County 2021

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## 5.1.2 Cumulative Effects of the Proposed Project

### *5.1.2.1 Aesthetics*

The geographic context for the analysis of potential contributions to cumulative impacts on aesthetics consists of the areas adjacent to, within, and in the vicinity of the Project area. Land use changes associated with the cumulative condition have the potential to affect aesthetic resources in several ways. These impacts would result from construction activities; development of roadways, parking areas, buildings, bridges, and pedestrian overcrossings that could alter the study area's visual character; and the introduction of new light sources. These changes are evaluated below in the cumulative analysis. The proposed Project would not be in the viewshed of any State or locally designated scenic highway; therefore, there would be no impact and no potential for the proposed Project to contribute to cumulative impacts from degradation of scenic quality associated with elements of a designated scenic highway. This topic is not evaluated further in this cumulative aesthetics analysis.

**Construction**

***Scenic Vistas and Degradation of Visual Character or Quality***

Construction activities associated with all of the cumulative projects listed in **Table 5.1-B: Summary of Related Projects** have the potential to substantially degrade the existing visual character or quality of each individual project site, and thereby also affect the viewshed of the surrounding area, including scenic vistas, during construction activities. However, visual changes resulting from introducing construction activities and equipment into the viewsheds of all user groups would be temporary, occurring only for short periods of time during the construction process of each project. Furthermore, construction of proposed Project improvements would not occur in the viewshed of any designated scenic vistas. Therefore, visual changes resulting from introducing construction activities and equipment into the viewsheds of all user groups would not result in significant impacts, and no cumulative impact would occur.

***Nighttime Light and Glare***

Construction activities associated with all of the cumulative projects listed in **Table 5.1-B: Summary of Related Projects** could also create new sources of substantial nighttime lighting during construction that would create a new source of nighttime glare, and would adversely affect nighttime views. High-intensity nighttime lighting in close proximity to existing residences where there is no existing visual screening would result in nighttime glare, and could result in sleep disruption. Therefore, the cumulative projects could result in significant visual impacts from new sources of temporary nighttime lighting during construction.

As described in Section 4.3, *Aesthetics*, construction activities associated with the proposed Project could degrade the existing visual character or quality of the proposed Project footprint, and could create a new source of substantial nighttime lighting that would create a new source of nighttime glare, and would adversely affect nighttime views. Project-related construction activities would introduce heavy equipment and associated vehicles such as dozers, graders, scrapers, and trucks into the viewshed. Depending on location, viewers could see staging areas, worker parking, and

equipment and materials storage areas, which would add industrial-looking elements into viewsheds.

However, visual changes resulting from introducing construction activities and equipment into the viewsheds of all user groups would be temporary, occurring only for short periods of time as construction proceeds along the Project footprint in a linear fashion. Construction activities would occur primarily during the daytime hours. However, nighttime lighting during the Project's construction phase may be required in areas where track improvements are proposed. High-intensity nighttime lighting in close proximity to existing residences where there is no existing visual screening would result in nighttime glare, and could result in sleep disruption. However, Project construction-related lighting would be directional, short-term, and screened by existing 6-foot fences on the residential property lines. Therefore, the proposed Project's contribution to cumulative aesthetics impacts as a result of construction would be a less-than-considerable contribution.

**Operation**

***Scenic Vistas***

The cumulative projects listed in **Table 5.1-B: Summary of Related Projects** have the potential to degrade the elements of scenic vistas, resulting from development of roadways, parking areas, buildings, bridges, and pedestrian overcrossings. Therefore, the cumulative projects could result in significant visual impacts to scenic vistas. There are no designated scenic vistas in the vicinity of the proposed Project. Although some of the proposed Project improvements would occur in rural areas in Sacramento County, the viewshed in these areas includes the existing UPRR embankment, tracks, and associated equipment such as signals and signage. Furthermore, the existing visual character is typical of rural agricultural land in the Central Valley, and does not represent examples of an outstanding scenic vista that would qualify for official designation. Therefore, the proposed Project would have a less-than-significant impact in and of itself, and would not contribute to any cumulatively significant impacts from degradation of the existing visual quality of a scenic vista.

***Degradation of Visual Character or Quality***

In the developed, urbanized areas of Elk Grove and Sacramento County, the regional transportation and rail improvements listed in **Table 5.1-B: Summary of Related Projects** would occur in transit priority areas, where residential and commercial development are designed to be in close proximity to transportation corridors to promote Smart Growth goals, reduce vehicle miles traveled (VMT), and reduce the emission of greenhouse gases (GHGs). Furthermore, these urbanized areas already contain existing rail and transportation facilities, along with all types of buildings, and the visual appearance of the cumulative projects would be similar in nature to the existing development. However, some of the cumulative development projects listed in **Table 5.1-B: Summary of Related Projects** may occur in outlying areas along the urban fringe, adjacent to agricultural land or open space. These areas are generally considered to be of higher visual quality, with expansive views of flat agricultural land and open space flanked by either the Sierra Nevada or the Coast Ranges in the distance. Therefore, all of the cumulative projects listed in **Table 5.1-B: Summary of Related Projects** could result in a significant aesthetic impact due to the installation of features incompatible with the existing visual character of the area. Furthermore, development in rural or urban fringe

areas could be inconsistent with existing zoning impact from degradation of visual character or quality, or conflicts with zoning or policies governing scenic quality.

Implementation of **Mitigation Measures AES-1, AES-2,** and **AES-3** would reduce proposed Project impacts associated with degradation of visual character and quality because trees would be planted in the station parking lots to soften the views, and provide a blending effect with the surrounding landscape; pedestrian overcrossings would be subject to aesthetic treatments and complement the surrounding landscape; appropriately colored overhead light standards and pedestrian shelters would recede into the view; and bridges and above-grade crossings would employ the use of materials to better match the existing landscape. Therefore, the proposed Project would not contribute to a cumulatively significant impact from degradation of visual character.

***Nighttime Light and Glare***

Operation of all of the cumulative projects listed in **Table 5.1-B: Summary of Related Projects** would result in an increase in nighttime light, glare, and skyglow effects. The cumulative transportation projects would result in an increase in train and vehicular headlights, along with new signal lights and at-grade rail crossing lights. The cumulative building projects would result in a substantial increase in new nighttime lighting for roadways, parking lots, and buildings that would increase nighttime light, glare, and skyglow effects. Therefore, the cumulative projects would result in a significant impact from creation of new sources of substantial nighttime light and glare effects.

The proposed Project would require nighttime safety lighting in the parking lot, pedestrian overcrossing, and platform lighting that could result in light spillover, which causes glare and obscures views of the night sky, as well introducing a potential source of sleep disruption for nearby residents. Furthermore, daytime glare could be caused by the use of reflective surfaces such as shiny coatings on top of the pedestrian shelter at the new station platform.

However, as described in **Chapter 3.0, Project Description**, the proposed Project would incorporate a variety of measures as part of the Project to minimize the creation of new sources of light and glare. For example, all artificial outdoor lighting would be limited to safety and security requirements, designed using Illuminating Engineering Society's design guidelines, and in compliance with International Dark-Sky Association approved fixtures. All lighting would be designed to have minimum impact on the surrounding environment, and would use downcast, cut-off type fixtures that direct the light only towards objects requiring illumination. Shielding would be used, where needed, to ensure light pollution is minimized. Lights would be installed at the lowest allowable height and cast low-angle illumination, while minimizing incidental light spill onto adjacent properties, open spaces, or backscatter into the nighttime sky. The lowest allowable illuminance level would be used for all lighted areas, and the amount of nighttime lights needed to light an area would be minimized to the highest degree possible.

Light fixtures would have nonglare finishes that would not cause reflective daytime glare. Lighting would be designed for energy efficiency, and have daylight sensors or be timed with an on/off program. Parking lot lighting would be designed to meet safety requirements, but would use locational motion-activated sensing to reduce the amount of time that lights are operating.

Furthermore, anti-reflective coatings would be used on the roof of the pedestrian shelter at the new station to reduce daytime glare.

Operation of the proposed Project would result in a less-than-significant impact related to nighttime light, glare, and skyglow effects in and of itself. Therefore, the proposed Project would not contribute to a cumulatively significant impact from nighttime light, glare, and skyglow effects.

#### *5.1.2.2 Air Quality*

As discussed in Section 4.2, Air Quality of this EIR, the Sacramento Valley Air Basin (SVAB) is designated as non-attainment for ozone ($O_3$) and particulate matter 2.5 microns or less in diameter ($PM_{2.5}$) for federal standards and non-attainment for $O_3$ and particulate matter 10 microns or less in diameter ($PM_{10}$) for State standards. The Sacramento Metropolitan Air Quality Management District's (SMAQMD) nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

***Construction***

During construction of the proposed Project, short-term degradation of air quality may occur due to the release of particulate matter emissions (e.g., fugitive dust) generated by demolition, grading, hauling, and other activities. Emissions from construction equipment are also anticipated and would include carbon monoxide (CO), nitrogen oxides ($NO_x$), reactive organic gases (ROG), directly-emitted particulate matter ($PM_{2.5}$ and $PM_{10}$), and toxic air contaminants (TACs) such as diesel exhaust particulate matter.

Project construction would involve site preparation, grading, paving, building, and architectural coating activities. Construction-related effects on air quality from the proposed Project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Vehicles leaving the site could deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. $PM_{10}$ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. $PM_{10}$ emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The SMAQMD has established standard measures for reducing fugitive dust emissions ($PM_{10}$). With the implementation of these Basic Construction Emission Control Practices (Best Management Practices [BMPs]), fugitive dust emissions from construction activities would not result in adverse air quality impacts.

In addition to dust-related $PM_{10}$ emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, sulfur dioxide ($SO_2$), $NO_x$, ROGs and some soot particulate ($PM_{2.5}$ and $PM_{10}$) in exhaust emissions. If construction activities were to increase traffic congestion in the Project area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the proposed Project using California Emissions Estimator Model (CalEEMod), consistent with SMAQMD recommendations. As stated in Chapter 3.0, Project Description, construction of the proposed Project is anticipated to occur over a 14-month duration. The proposed station is anticipated to be completed in 14 months, while the proposed siding and relocated UPRR track is anticipated to be completed in 8 months. The construction of the proposed station platform and proposed siding and relocated Union Pacific Railroad (UPRR) track is anticipated to occur in parallel. As presented in Table 4.2-E:  in Section 4.2, Air Quality, Project construction emissions would be below the SMAQMD's thresholds. However, the SMAQMD requires the implementation of SMAQMD BMPs. Therefore, **Mitigation Measure AIR-1**, which requires implementation of BMPs during Project construction and would reduce construction-related air quality impacts of $PM_{10}$ and $PM_{2.5}$ fugitive dust emissions, consistent with SMAQMD requirements, would be required. With implementation of Mitigation Measure AIR-1, the proposed Project's construction-related contribution when considered in conjunction with the cumulative projects listed in **Table 5.1-B: Summary of Related Projects**, would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project is nonattainment under applicable federal or State ambient air quality standards.

***Operations***

Long-term air pollutant emission impacts that would result from the proposed Project are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment). As shown in Table 4.2-E in Section 4.2, Air Quality, the Project would not exceed the significance criteria for ROG, $NO_x$, $PM_{10}$ or $PM_{2.5}$ emissions. Therefore, operation of the proposed Project when considered in conjunction with the cumulative projects listed in **Table 5.1-B: Summary of Related Projects**, would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project is nonattainment under applicable federal or State ambient air quality standards.

Localized CO Emissions

Vehicular trips associated with the proposed Project would contribute to congestion at intersections and along roadway segments in the Project vicinity. Localized air quality impacts would occur when emissions from vehicular traffic increase. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited; under normal meteorological conditions, CO disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with

extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

As discussed in Section 4.2, Air Quality, of this EIR, given the extremely low level of CO concentrations in the Project area, and lack of traffic impacts at any intersections, Project-related vehicles are not expected to contribute significantly to CO concentrations exceeding the State or federal CO standards. Because no CO hot spots would occur, the proposed Project's contribution to cumulative CO hot spots would be less than cumulatively considerable.

#### *5.1.2.3 Noise*

For noise, the long-term impact analysis is already cumulative in nature because it considers the existing noise levels when determining the noise impact threshold for each receiver. This approach takes into account the noise from existing surrounding facilities, such as highways or local streets. The development of future projects, including future transportation facilities or services independent of the proposed Project, would have the potential to alter cumulative noise levels. Most transportation projects in the general vicinity of the proposed Project are far enough away from the proposed Project that there would be no cumulative effect.

***Construction***

As discussed in Section 4.3, *Noise*, construction of the proposed Project would have potentially significant noise and vibration impacts during construction. **Mitigation Measures NOI-1** and **NOI-3** would require development and implementation of a noise control plan and vibration control plan, respectively, to reduce potential construction noise and vibration impacts, but would not necessarily reduce all noise impacts at all times during construction to a less-than-significant level; particularly with the likelihood of substantial nighttime construction expected with the proposed Project. Because there will be other cumulative projects simultaneously under construction adjacent to the corridor, the construction of the proposed Project could result in a cumulatively considerable contribution to cumulative construction noise impacts. However, given the nearest cumulative project is more than 0.5 mile away from the proposed Project and with implementation of Project-specific mitigation, it is unlikely that construction noise levels generated by the proposed Project and any one or more cumulative project would combine to create a cumulatively considerable temporary increase in noise levels. Furthermore, the effects of construction vibration are generally localized and limited to the immediate vicinity of the source. Therefore, the proposed Project's contribution to cumulative construction vibration impacts would be less than cumulatively considerable.

***Operation***

As described in Section 4.3, *Noise*, the proposed Project would result in a less-than-significant operational noise impact with implementation of **Mitigation Measures NOI-2** and **NOI-4**. The proposed Project would introduce decelerating and accelerating trains to the Project vicinity. As discussed in Section 4.3, *Noise*, decelerating and accelerating trains generate less noise than trains operating at a constant cruising speed (existing conditions), Rail operations associated with the proposed Project would not increase ambient noise levels; therefore, the proposed Project's

contribution to cumulative rail operations impacts would be less than cumulatively considerable. Additionally, the proposed public address (PA) system has the potential to generate noise at the platform. The proposed Project would be designed to meet the City of Elk Grove noise criteria, as identified in **Mitigation Measure NOI-2**. The proposed Project's compliance with the City's noise criteria would result in a less than significant stationary noise impact. Given the distance between the proposed Project and the cumulative projects listed in **Table 5.1-B: Summary of Related Projects**, the proposed Project's contribution to cumulative operational noise impacts would be less than cumulatively considerable.

#### *5.1.2.4 Transportation*

The geographic context for the analysis of cumulative impacts on transportation varies by subject area. For construction impacts, the geographical area is the Project corridor and vicinity. For operations impacts, the geographic focus of the analysis is the transportation network at and near the proposed station.

The cumulative analysis for transportation primarily relies on a list approach, and considers the cumulative projects summarized in **Table 5.1-B: Summary of Related Projects**. The analysis of cumulative impacts due to Project construction, for example, considers the subset of those cumulative projects in **Table 5.1-B: Summary of Related Projects** in the geographic context for construction impacts (i.e., the Project corridor and vicinity). However, a projection-based approach is applied for some components of the analysis of cumulative impacts due to Project operation. In these particular cases, the analysis relies on travel demand and ridership forecasting models to characterize and quantify specific effects of the project (e.g., reductions in annual VMT).

**Construction**

During construction, cumulative projects could disrupt transit, roadway, bicycle, or pedestrian facilities, which could conflict with programs, plans, ordinances, or policies addressing the circulation system; substantially increase hazards; and/or result in inadequate emergency access. In general, potential effects would be more substantial for transportation projects, which may require substantial, if temporary, changes to the circulation system to accommodate construction activities. However, land use development and other non-transportation cumulative projects could also result in some effects in cases where such projects similarly propose substantial changes to the circulation system to facilitate construction (e.g., roadway closures, transit stop relocations, etc.).

Considering the Project in conjunction with these cumulative projects, potential effects on transportation may be amplified where construction activities are concentrated in close proximity, or when they take place concurrently. Standard construction practices and regulations require construction contractors to work with relevant parties (e.g., public works departments, transportation agencies, transit service providers) to coordinate construction activities, and identify, avoid, and minimize disruptions to the circulation system. Given the proximity of the cumulative projects relative to the proposed Project, the Project's contribution to the impact would be less than considerable.

**Operation**

***Program, Plan, Ordinance, or Policy Conflict Impacts***

The Project, in combination with other cumulative projects, would result in physical changes to transit, roadway, bicycle, and pedestrian facilities, and would likely result in other indirect effects on the circulation system, such as increasing demand for these facilities. However, the Project and other cumulative transportation projects would generally improve or enhance the quality of these facilities. Active transportation, for example, would generally improve through the ongoing implementation of bicycle and pedestrian plans, enhancing the geographical extent, safety, and attractiveness of bicycle and pedestrian facilities, even if increased automobile traffic or other cumulative effects may increase potential sources of conflict for bicyclists and pedestrians.

For other components of the circulation system, however, it cannot be determined with reasonable certainty whether or not general conformance with applicable programs, plans, ordinances, or policies would be achievable. The ability to improve transit service and facilities, for example, is often restricted by the availability of funding, and it is possible that land use development in the cumulative timeframe may generate additional ridership that would require substantive physical improvements that are not foreseeable at this time, or that may not be implemented in time to ensure that transit continues to function in accordance with applicable programs, plans, ordinances, or policies. Likewise, it is not certain whether goals and objectives related to VMT reduction are fully achievable. Given this uncertainty, cumulative impacts related to the plan and policy inconsistencies are conservatively deemed significant.

As described in Section 4.4, *Transportation*, however, Project operation, on its own, would generally conform to these programs, plans, ordinances, and policies. The Project would provide substantive benefits in expanding the geographic reach and connectivity of the transit network, and would result in substantive mode shifts and reductions in VMT. Given these considerations, the Project would not represent a considerable contribution to the significant cumulative impact identified above.

***VMT Impacts***

As described in Section 4.4, *Transportation*, the proposed Project is expected to result in an annual VMT reduction, which would continue to grow in subsequent years, in conjunction with ridership growth on the rail system, as well as synergistic effects with other planned improvements to the transportation system. Because the proposed Project would result in a reduction in VMT, the Project would not represent a considerable contribution to any cumulative VMT impact.

***Hazard Impacts***

The design and function of each cumulative project and its interface with the circulation system would be governed by applicable standards from Caltrans, the City of Elk Grove, and Sacramento County. Cumulative land use development, for example, would be subject to applicable site access and design standards, including on-site transit, roadway, bicycle, and pedestrian facilities, and any interface with corresponding off-site components of the circulation system. In addition, some transportation-related cumulative projects may specifically include components to address deficiencies in the existing circulation system, or would otherwise reduce or eliminate hazards.

Given these considerations, cumulative impacts related to transportation hazards would be less than significant.

***Emergency Access Impacts***

Physical changes and other effects on the circulation system due to cumulative projects—including increased demand on transit, roadway, bicycle, and pedestrian facilities—could affect emergency access. Changes to the roadway network, for example, may affect the preferred routes that emergency responders choose to take, while increased automobile traffic and other activity may result in a slight increase in response times for emergency vehicles. It is unlikely, however, that these changes would rise to the level of a significant impact by precluding emergency access to, from, or through specific areas or by substantially increasing travel times for emergency vehicles.

Emergency vehicles are permitted to use transit-only lanes or other vehicle-restricted lanes and are generally not subject to traffic control devices, and would therefore be able to bypass other vehicles, including any localized traffic congestion. California Vehicle Code Section 21806 also requires that other vehicles yield right-of-way to emergency vehicles. Given these considerations, cumulative impacts related to emergency access would be less than significant.

## 5.2 GROWTH INDUCEMENT

*CEQA Guidelines* Section 15126.2(d) requires that an EIR discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Typical growth-inducing factors might be the extension of urban services or transportation infrastructure to a previously unserved or underserved area, or the removal of major barriers to development. This section evaluates the project's potential to create such growth inducements. Not all aspects of growth inducement are negative; rather, negative impacts associated with growth inducement occur only where the projected growth would cause adverse environmental impacts.

Growth-inducing impacts fall into two general categories: direct or indirect. Direct growth-inducing impacts are generally associated with providing urban services to an undeveloped area. Indirect (secondary) growth-inducing impacts consist of growth induced in the region by additional demands for housing, goods, and services associated with population increase caused by or attracted to a new project.

Growth inducement would occur if the amount of population or employment growth projected to take place as a result of the proposed Project would exceed planned levels. Increased development and growth in an area are dependent on a variety of factors, including employment and other opportunities; availability of developable land; and availability of infrastructure, water, and power resources.

A growth inducement analysis was conducted for the proposed Project, as described in Section 3.14, *Population and Housing* of the Initial Study (**Appendix A**). The analysis determined that the new station would not result in the intensification of land uses or induce new or unplanned growth around the station site. The proposed station is considered beneficial and complementary to land use and future growth plans. There are limited undeveloped parcels surrounded by either industrial

uses or residential uses in the Project vicinity. There are vacant lands north of the city limits within the County of Sacramento boundary; however, these lands are designated as Public/Quasi-Public and would require a General Plan amendment and rezone if developed with a growth-inducing use. Therefore, the proposed Project would not induce new or unplanned growth in this segment around the station site and this impact would be less than significant.

## 5.3 SIGNIFICANT IRREVERSIBLE CHANGES

CEQA requires an assessment of whether a proposed Project would result in significant irreversible changes to the physical environment. The *CEQA Guidelines* discuss three categories of significant irreversible changes that should be considered. Each is addressed below.

### 5.3.1 Changes in Land Use Which Commit Future Generations

Permanent visual alterations would result from the new station platform, operating facilities, and associated railroad features. Additionally, trees and mature vegetation would be removed and pruned. Some trees and vegetation would not be replaced on site, resulting in a physical and aesthetic permanent change in certain locations. As documented in Section 4.3, *Aesthetics,* these physical changes would alter views from residential viewers, roadway travelers, and recreationists; and would also result in a new source of lighting.

### 5.3.2 Irreversible Damage from Environmental Accidents

The *CEQA Guidelines* also require a discussion of the potential for irreversible environmental damage caused by an accident associated with the proposed Project. While the proposed Project could result in the use, transport, storage, and disposal of hazardous wastes during construction and operation, as described in Section 3.9, *Hazards and Hazardous Materials*, of the Initial Study (**Appendix A**), all activities would comply with applicable State and federal laws related to hazardous materials, which reduces the likelihood and severity of accidents that could result in irreversible environmental damage.

### 5.3.3 Consumption of Non-Renewable Resources

During the construction of the proposed Project, the use of materials such as steel and copper and fossil fuels would be required. The source metals used, unless they come from recycled materials, would represent an irreversible use of resources. Fossil fuels used during construction would also represent an irreversible use of oil and natural gas. Section 3.6, *Energy*, of the Initial Study (**Appendix A**) discusses fuel consumption from the construction of the proposed Project.

Operation of the proposed project would require diesel fuel for propelling the trains, fuel for vehicle shuttle/bus bridge operations, and electrical use at the proposed station. However, the proposed Project would also result in a reduction in vehicle fuel use due to the displacement of VMT. As discussed in Section 3.6, *Energy*, of the Initial Study (**Appendix A**) the reduction in VMT and the related decrease in fuel consumption would offset the operational energy demands of the proposed Project. The continued diesel use for Project operations would be a continuance of non-renewable fossil fuel usage. To the extent that electricity supplying the proposed Project comes from non-renewable sources (natural gas, coal, nuclear), it would represent an irreversible use of those

resources; however, due to the offset of vehicle fuel use, the Project would have a net reduction in the irreversible use of fossil fuels.

## 5.4 EFFECTS FOUND NOT TO BE SIGNIFICANT

An Initial Study was completed for the Project in August of 2021. The Initial Study was circulated with the NOP. Based on information from SJRRC staff, visits to the Project site, and background research and analysis completed for the Initial Study, the Project is not expected to result in significant impacts related to the following topics with the implementation of the standard mitigation measures identified in the Initial Study and **Table 2.6-A: Summary of Impacts and Mitigation Measures** of this EIR.

### 5.4.1 Agricultural and Forestry Resources

The improvements to the railway would occur within UPRR right-of-way and development of the proposed parking lot would occur on a parcel currently occupied by a storage business. According to the California Department of Conservation Farmland Mapping and Monitoring Program, the Project site is designated as Urban and Built-Up Land. None of the parcels within the Project site are under Williamson Act Contracts; however, APNs 119-0120-008, 119-0120-006, 119-0120-014, and 132-0020-002 within the Project site are zoned AG-90 (an agricultural zoning designation). These specific parcels are devoid of agricultural operations. None of the parcels within or adjacent to the Project site are occupied by forest resources or zoned for forest or timberland resources. Overall, the proposed Project would have **no impact** on agricultural and forestry resources.

### 5.4.2 Biological Resources

The majority of the Project site can be characterized as ruderal grassland, totaling 18.51 acres. The vegetation is dominated by a variety of annual grassland species including ripgut grass (*Bromus diandrus*), vetch (*Vicia villosa*), filaree (*Erodium botrys*), rose clover (*Trifolium hirtum*), fiddleneck (*Amsinkia douglasii*), soft chess (*Bromus hordeaceous*), wild radish (*Raphanus raphanus*), ryegrass (*Festuca perinnis*), and pineapple weed (*Chamomilla suaveolens*). A total of 12 blue elderberry shrubs (*Sambucus nigra* ssp. *cerulea*) were observed within this community concentrated in mostly the northern and southern ends of the alignment. Mature Valley oaks (*Quercus lobata*) are also present in scattered locations in the central part of the Project site. This ruderal community is regularly maintained through both mowing and herbicide application as part of UPRR operations.

One aquatic feature, totaling 0.14 acre, is present in the Project site (an unnamed canal). This area was dominated by mugwort (*Artemesia douglasiana*), broad-leaved cattail (*Typha latifolia*) and curly dock (*Rumex crispus*). It is likely that these features would be classified as wetlands pursuant to United States Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) guidance. The unnamed canal would also likely be subject to jurisdiction by the USACE, the RWQCB, and the CDFW.

Wildlife observed on the Project site is limited to regionally common species such as mourning dove (*Zenaida macroura*), meadowlark (*Sturnella neglecta*), red-winged blackbird (*Agelaius phoeniceus*), red-tailed hawk (*Buteo jamaicensis*), yellow-billed magpie (*Pica nutalli*), turkey vulture (*Cathartes aura*), Brewer's blackbird (*Euphagus cyanocephalus*), and red-shouldered hawk (*Buteo lineatus*).

California ground squirrel (*Otospermophilus beecheyi*) were also observed along the length of the Project site, primarily on the shoulders of the UPRR track where numerous burrows were present. None of the visually inspected burrows within the Project site exhibited signs of burrowing owl occupancy. The mature Valley oaks in the Project site provide suitable nesting habitat for Swainson's hawks (*buteo swainsoni*), which is State-listed as threatened. Additionally, several ornamental trees associated with surrounding urban development would also be considered suitable nesting habitat for Swainson's hawk. The ruderal grasslands along the UPRR corridor is typically too narrow for effective foraging since it is mostly bounded by urban development. However, the open grassland areas adjacent to the Project site at the north and south ends of the alignment provide foraging habitat for this species. Impacts could occur to special-status/protected species including valley elderberry longhorn beetle, western burrowing owl, Swainson's hawk, and other nesting birds. **Mitigation Measures BIO-1** through **BIO-4** are disclosed in the Initial Study (**Appendix A**) and would reduce impacts to a **less than significant** level.

No riparian habitat occurs within the Project site; however, potential riverine wetlands occur within the unnamed canal in the Project site and could be impacted as a result of Project implementation. **Mitigation Measure BIO-5**, identified in the Initial Study (**Appendix A**), would reduce the potential impacts to wetland riverine wetlands to a **less than significant** level.

### 5.4.3 Cultural Resources

Review of the North Central Information Center (NCIC) records indicates that five historic-period cultural resources exist in the Project site. The Western Pacific Railroad (P-34-000491/CA-SAC-464H) was previously found ineligible for listing in the California Register of Historical Resources (CRHR) based on a lack of integrity and does not meet the definition of a historical resource under CEQA. LSA concurs with this finding as it applies to the segment identified in the Project site. Additionally, the remains of the Elliot Ranch holding corral and railroad loading chute (P-34-001968/P-34-000761) identified in the Project site lacks integrity and does not to meet the definition of a historical resource under CEQA. Two isolated artifacts were previously recorded in the Project site but have since been removed. The Brighton-Grand Island 115 kilovolt transmission line crosses the Project site but is raised high enough to be outside of the area of impact. None of the historic-period resources are historical resources as defined by the CEQA, and they do not require additional consideration for purposes of the proposed Project. The Project site generally has a low sensitivity for buried archaeological resources based on landform age. However, the potential exists that undiscovered archaeological resources could be found during construction activities. The Initial Study (**Appendix A**) concludes that implementation of **Mitigation Measures CUL-1, CUL-2** and **CUL-3** would reduce the Project's potentially significant impacts on archaeological resources to a **less than significant** level. Although there is no indication that human remains are present in the Project footprint, there is always a possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains. To avoid this, the Initial Study concludes that **Mitigation Measure CUL-4** would be implemented to reduce the proposed Project's potentially significant impact on human remains to a **less-than-significant** level.

### 5.4.4 Energy

Construction of the proposed Project would require energy for the manufacture and transportation of construction materials, preparation of the site for grading activities, and construction of the station platform, rail siding, main line track, pedestrian overcrossing, and surface parking lot with access from Dwight Road. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. Implementation of **Mitigation Measure GHG-1** would increase energy efficiency on the site during Project construction. In addition, construction activities are not anticipated to result in an inefficient use of energy as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the Project. Energy usage on the Project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. Therefore, construction energy impacts would be **less than significant**. Operations would result in a net energy savings because the fuel savings from reduced personal VMT would more than offset the energy demand from train and station operations. In addition, energy demand at the new station would be minimized by compliance with Title 24 standards. Energy demand at the proposed station would be in the form of electricity provided by utility providers that currently exceed the Renewables Portfolio Standard Program. Once operational, the proposed Project would result in a net energy savings due to fuel savings from reduced VMT from personal vehicle use. In addition, Sacramento Municipal Utility District (SMUD) is the private utility that would supply the proposed Project's electricity services. SMUD's *2030 Zero Carbon Plan* (2021) provides a road map to eliminate carbon emissions from their electricity production by 2030 while maintaining reliable and affordable service and partnering with customers, communities, and a wide range of stakeholders. Therefore, the proposed Project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment use, and transportation. Operational impacts would result in a **less than significant** impact on energy resources.

### 5.4.5 Geology and Soils

The Project site is not located in an area with active fault traces nor is the Project site located within or adjacent to an Alquist-Priolo Earthquake Fault Zone. The closest active fault is an unnamed fault approximately 36 miles northwest of the Project site. Due to the Project's location near the seismically active San Francisco Bay Area, the Project site could be exposed to ground-shaking activity. However, the Project would be constructed in accordance with applicable federal transportation standards and the California Building Code which requires application of seismic design features to reduce damage from seismic ground-shaking. Seismic activity can also cause secondary effects such as liquefaction, ground failure or landslides. The Project site is not located on soil that is subject to liquefaction, and the groundwater table at groundwater measurement locations in the vicinity of the Project site is more than 80 feet below the ground surface, thus precluding the site from liquefaction issues. The Project site is located in a relatively flat topographical region of the Sacramento Valley; therefore, the Project site is not subject to seismically induced landslides.

Erosion potential for the Project area is moderate for water erosion and low for wind erosion; the potential for water runoff is medium to high. Because the Project footprint is relatively flat, substantial soil erosion is not expected to occur. However, based on the soil characteristics in the study area, the Initial Study concludes that implementation of best management practices identified in **Mitigation Measure GEO-1** would be required to prevent soil erosion and loss of topsoil from occurring on the Project site. Plasticity index is a commonly used method to help determine the expansive properties of soils for engineering purposes. Based on the plasticity index of soils in the proposed Project area, the shrink swell potential is high. Prior to construction, a geotechnical report would be prepared to identify site-specific areas and magnitudes where expansive soils could occur, and appropriate development techniques (such as treating soil with lime to reduce expansive characteristics or excavate expansive soil and replaced with clean fill dirt) would be implemented to prevent damage to foundations related to this hazard. Therefore, potential impacts related to erosion of soils and expansive soils would be **less than significant**.

Project-related earthmoving activities would occur in the Pleistocene-age Riverbank formation. Because numerous vertebrate fossils have been recovered from the Riverbank formation throughout the Central Valley, this formation is considered to be paleontologically sensitive. Therefore, earthmoving activities in the Riverbank Formation could result in accidental damage to or destruction of unique paleontological resources. As Project-related ground disturbance may occur deeper than 5 feet, the Initial Study identifies **Mitigation Measure GEO-2** to reduce the proposed Project's impact on unique paleontological resources to a **less than significant** level.

### 5.4.6 Greenhouse Gases

Construction would generate GHG emissions through the use of heavy-duty equipment, construction worker vehicle trips, and truck hauling trips. The GHG emissions from construction activity would be temporary, and would cease when construction is complete. Short-term construction emissions would generate an increase in GHG emissions. To conservatively ensure that the proposed Project implements all feasible measures to minimize such emissions, the SJRRC would implement **Mitigation Measure GHG-1**, which would reduce construction-related GHG emissions to a **less than significant** level.

Operation of the proposed Project would generate GHG emissions through passenger rail, shuttle bus, and station electricity use and waste generation activity. However, operations would also improve passenger rail opportunities for the region, which would remove on-road vehicles from the transportation network and would result in a net energy savings due to fuel savings from reduced VMT from personal vehicle use. The proposed Project is consistent with the City of Elk Grove's Climate Action Plan and would comply with existing State regulations adopted to achieve the overall GHG emission reduction goals identified in AB 32, the AB 32 Scoping Plan, Executive Order B-30-15, SB 32, and AB 197. Furthermore, GHG emission reductions achieved through operations would contribute to a regional reduction in GHG emissions that would assist the State in meeting statewide GHG reduction goals outlined under AB 32, SB 32, and Executive Order S-03-05. Therefore, the proposed Project would be consistent with applicable plans and programs designed to reduce GHG emissions and the proposed Project would not conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Therefore, the proposed Project would not be a significant source of GHG emissions, and this impact would be **less than significant**.

### 5.4.7 Hazards and Hazardous Materials

Construction activities associated with Project improvements are expected to involve the routine transport, use, and disposal of hazardous materials (e.g., fuels, paints, and lubricants) that could pose a significant threat to human health or the environment if not properly managed. Operation of the Project would include similar activities as well as the routine use of diesel to power locomotives, and pesticides to clear vegetation from track areas. The transport, use, and disposal of hazardous materials during construction and operation is regulated and enforced by federal and State agencies. Workers and operators who handle hazardous materials are required to adhere to Federal Occupational Safety and Health Administration (OSHA) and California Occupational Safety and Health Administration (Cal/OSHA) health and safety requirements, which limit potential exposure of workers to hazardous materials by requiring appropriate administrative or engineering controls.

In accordance with the State Water Resources Control Board (SWRCB), a Storm Water Pollution Prevention Plan (SWPPP) must be prepared and implemented during construction for coverage under the Construction General Permit. The SWPPP requires implementation of Best Management Practices (BMPs) for hazardous materials storage and soil stockpiles, inspections, maintenance, training of employees, and containment of releases to prevent runoff into existing storm water collection systems or waterways. Construction could include the removal and disposal of chemically treated railroad ties and the disturbance of soil and ballast potentially contaminated from operation of the existing railroad corridor. Construction of the proposed Project would involve soil and ballast disturbance up to a depth of 50 feet (for pedestrian overcrossing piles), which could be deep enough to encounter groundwater in some locations. Therefore, construction could result in the disturbance of potentially contaminated soil, ballast, and/or groundwater, which could affect the health of construction workers and/or the public through direct contact or inhalation of contaminated dust particles; or could result in the release or migration of contaminants to the environment. Construction of the proposed project could also result in the disturbance and release of hazardous materials that could pose a health risk to construction workers, the public, and/or the environment if not handled and disposed of properly. Compliance with federal and State laws and regulations reduces the risk of exposure to and improper disposal of hazardous building materials. Compliance with existing laws and regulations is mandatory; therefore, the disturbance of hazardous materials during construction of the proposed Project is not expected to create a hazard to construction workers, the public, and/or the environment. As a result, impacts related to the disturbance of hazardous materials during construction of the proposed Project would be **less than significant**.

Pesticide use for vegetation removal near the tracks would be required to comply with California Department of Pesticide Regulation regulations, which are intended to protect human health and the environment. Hazardous materials must be transported in accordance with Resource Conservation and Recovery Act (RCRA) and United States Department of Transportation regulations; managed, stored, and used in accordance with the Unified Program enforced by Sacramento County Environmental Management Department; and disposed of in accordance with RCRA and the California Code of Regulations at a facility permitted to accept the waste.

The nearest school (based on City zoning designations) is Stone Lake Elementary School, located approximately 0.3 mile west of the Project site. There are no existing or proposed preschools, elementary, middle, or high schools within one-quarter mile of the Project site; therefore, there

would be no impact related to hazardous emissions, materials, substances, or waste near schools. An online search of the Cortese List conducted on April 11, 2021, found no records within or adjacent to the Project site. The nearest airport/airstrip to the Project site is Borges-Clarksburg Airport, located approximately 2.5 miles west of the Project site. The maximum height of structures to be developed with the proposed Project would be approximately 46 feet above grade, which would not exceed airport imaginary surfaces, obstruction standards, or other Federal Aviation Administration requirements.

During construction of the proposed Project, staging areas and construction activities would primarily occur in the existing UPRR right-of-way, surface parking lot improvements, and the new signalized intersection along Dwight Road. There would be limited, temporary road closures, and road construction that could potentially cause increased traffic congestion in areas where emergency vehicles operate. These improvements could potentially disrupt traffic during construction activities and interfere with emergency response times. However, detour plans would be provided by local emergency responders to ensure that emergency response times are not impacted during Project construction. Once operational, the proposed Project would not include features that would impact or impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

### 5.4.8 Hydrology and Water Quality

The State Water Resources Control Board requires dischargers whose projects disturb one or more acres of soil, or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit 99-08-DWQ). Effective July 1, 2010, all dischargers are required to obtain coverage under the Construction General Permit Order 2009-0009-DWQ adopted September 2, 2009. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation. BMPs would be included in the grading plans to minimize erosion potential and water quality degradation of the project area in accordance with Elk Grove Municipal Code Title 16, Chapter 16.44, Land Grading and Erosion Control (2019b). Chapter 16.44 establishes administrative procedures, minimum standards for review, and implementation and enforcement procedures for controlling erosion, sedimentation, disruption of existing drainage, and related environmental damage caused by land clearing activities, grading, filling, and land excavation. Additionally, the State has published a set of BMPs for both pre- and post-construction periods, which would be applied to the Project. Compliance with the provisions of the BMPs and with Elk Grove Municipal Code Chapter 16.44 would reduce impacts associated with water quality standards and discharge requirements to a **less than significant** level.

The proposed Project may require groundwater dewatering activities in the event the Project would excavate to a depth of anticipated groundwater. Construction impacts related to groundwater would be reduced to a **less than significant** level with implementation of **Mitigation Measure HYD-1**.

The Project would introduce new impervious surfaces that would result in an increase of storm water and/or dry weather runoff. The paved roadway access and parking lot would be located in

areas that are currently paved with the exception of a swath of existing landscaping along Dwight Road. Impermeable surfaces from the concrete station platform and pedestrian overcrossing would replace permeable surfaces previously associated with the UPRR right-of-way; however, runoff would be able to percolate pervious lands adjacent to the proposed development.

The new station platform would be located within the UPRR right-of-way and would be regulated by storm water discharge permits issued by the SWRCB. Storm water runoff from the proposed station platform would not generate significant levels of pollutants as the station platform would have only foot traffic. Compliance with the post-construction storm water performance standards of the Construction General Permit would be required for the new station platform and would ensure that storm water runoff from station platforms would not cause erosion and sedimentation in receiving waters. This impact would be considered **less than significant** with compliance with federal and State regulations.

### 5.4.9 Land Use and Planning

The proposed Project, including the addition of the station platform and track modifications, would largely be constructed along and within the existing UPRR corridor. The proposed surface parking lot, which would be located on an existing parking lot, and the proposed pedestrian overcrossing would be constructed in a light industrial zone. The UPRR corridor acts as an existing physical barrier within the community. Development of a station platform within the Project area would not create a new physical division along the Project corridor or substantially alter the existing operations along the tracks. Because the proposed improvements would be located entirely along this existing barrier, construction and operation of the proposed Project would not create a new physical division within a community.

In addition, proposed improvements that are along or within the UPRR corridor would not displace important facilities that contribute to a sense of community (e.g., neighborhood-serving and community-serving retail centers, parks, and public uses), and would not sever important thoroughfares that connect areas within an established community, and thus would not divide an established community. The surface parking lot, which would be located outside of the UPRR right-of-way, and the pedestrian overcrossing, which would be partially located outside the UPRR right-of-way, would not be of a size or vertical scale large enough to impede access or create barriers within the community. The improvements would be compatible with the surrounding land uses (e.g., reconfiguring an existing parking lot for the proposed Project). The proposed pedestrian overcrossing would be adjacent to existing track and would not impede access to connectivity with the surrounding community. The proposed Project would preserve road connectivity in the Project vicinity and would not block access within the community. The proposed station would be adjacent to SacRT routes along Laguna Boulevard and would provide connectivity between transit service and the proposed station. Therefore, the improvements associated with the proposed Project would have a **less than significant** impact related to dividing an established community.

Project improvements within the UPRR right-of-way are exempt from City of Elk Grove building and zoning codes and other land use ordinances. Construction and operation of the proposed project could conflict with the *City of Elk Grove General Plan* (2021a) policies. The policies of the General Plan applicable to the proposed Project were reviewed and analyzed to determine if the proposed

Project would be consistent. The Initial Study determined that the proposed Project would be consistent with the Elk Grove General Plan. For these reasons, the proposed Project would not result in inconsistencies with the *City of Elk Grove General Plan*. The impact would be **less than significant**.

### 5.4.10 Mineral Resources

There are no mineral deposits or mineral extraction activities located within the City of Elk Grove according to the Elk Grove General Plan. **No impact** to mineral resources would occur with implementation of the proposed Project.

### 5.4.11 Population and Housing

Construction of the proposed Project could temporarily induce local population growth through the employment of workers during the construction period. The source of the construction labor force is unknown at this time, but workers would be expected to come from the local labor in nearby Elk Grove and unincorporated Sacramento County. It is not anticipated that construction of proposed improvements would cause substantial population growth or a substantial increase in housing demand in the region. Transit stations are more likely to increase the attractiveness of developing the surrounding area if local land use policies and the character of the surrounding area are conducive to such development. The new station platform would provide accessibility, proximity to transit services, and may be an attractive benefit consistent with intensified development. The proposed station would be adjacent to SacRT routes along Laguna Boulevard and would provide connectivity between transit service and the proposed station. Existing residential development is east and south of the proposed station in the City of Elk Grove. There are limited undeveloped parcels surrounded by either industrial uses or residential uses in the Project vicinity. There are vacant lands north of the city limits within the County of Sacramento boundary; however, these lands are designated as Public/Quasi-Public and would require a General Plan amendment and rezone if developed with a growth-inducing use. Implementation of the proposed Project would not displace housing or people necessitating the construction of replacement housing elsewhere. The right-of-way required for the proposed surface parking lot currently supports a parking lot and not residential development. The right-of-way required for the proposed pedestrian overcrossing is located adjacent to the UPRR right-of-way and supports drainage and maintenance access. The proposed station platform, rail siding, and main line track would be developed in the existing UPRR right-of-way where no residential uses exist. The proposed Project does not propose converting established residential areas to a non-residential land use. Overall, the Initial Study determined implementation of the proposed Project would not impact population and housing; therefore, impacts were determined to be **less than significant**.

### 5.4.12 Public Services

The Cosumnes Fire Department and Elk Grove Police Department provides fire protection service and law enforcement service, respectively, to the proposed Project site. The proposed Project would not result in a generation of a permanent residential population but could nevertheless increase demand for fire services. However, Cosumnes Fire Department could sufficiently meet potential increases in fire service demand due to operations of the Project. Increased passenger activities would not result in generation of a permanent residential population but would still increase

demand for law enforcement services. However, security cameras would be used to monitor the parking lot and station platform and video feeds could be shared with the Elk Grove Police Department. Law enforcement service needs induced by the Project are minimal enough to be covered by the existing police resources in the vicinity of the Project; however, SJJPA and SJRRC would continue to coordinate with the Elk Grove Police Department to ensure a safe environment is maintained at the site. Overall, operational impacts related to the provision of new facilities as a result of increased demand for fire service and law enforcement services would be **less than significant**.

The nearest school is Stone Lake Elementary School, approximately 0.3 mile west of the Project site. The proposed Project would not directly impact an existing or planned school facility nor would the proposed Project result in growth-inducement requiring the development of additional schools. The proposed Project would be located adjacent to Zehnder Park, which is located at 9212 Edisto Way, south of Laguna Boulevard. The proposed Project would not directly impact an existing or planned park nor would the proposed Project result in growth-inducement requiring development of additional park facilities. No public facilities (e.g., post office, library) are located adjacent to the proposed Project area. The proposed Project would not directly impact an existing or planned public facility nor would the proposed Project result in growth-inducement requiring the development of additional public facilities. Overall, **no impact** would occur to schools, parks, or other public facilities with implementation of the proposed Project.

### 5.4.13 Recreation

Construction of the Project would generate temporary construction workers. However, the construction workers are not anticipated to generate a permanent residential population, which would in turn increase demand for existing parks or recreational facilities. Operation of the Project would generate passengers in the Project area. Increased passengers would not result in generation of permanent residential population which would increase demand for existing parks and recreational facilities. The proposed Project does not include the development of recreational facilities that could cause adverse impacts. Overall, the Initial Study determined that the proposed Project would result in **no impact** to recreation resources.

### 5.4.14 Tribal Cultural Resources

SJRRC conducted tribal consultation in accordance with Public Resources Code 21080.3.1 (AB 52). The records search did not identify any pre-contact (tribal) resources within the Project area, and no such resources were identified during the field survey. No resources listed or eligible for listing the CRHR were identified. On April 5, 2021, LSA sent a letter describing the Project with maps depicting the Project site to the NAHC and requesting review their Sacred Lands File for any Native American cultural resources that might be affected by the Project. The NAHC informed LSA that a search of the Sacred Lands File yielded “negative results” and provided a list of Native Americans who might have additional information or concerns about the Project. On June 3, 2021, SJRRC sent letters to 11 tribal representatives of the Me-Wuk, Miwok, and Maidu Miwok per AB 52 describing the Project and with maps depicting the APE. To date, SJRRC has received no response from the tribal representatives. Implementation of **Mitigation Measures CUL-1** through **CUL-4** would further

reduce any impacts from the proposed Project to tribal cultural resources (including human remains, which may be inadvertently discovered during construction activities) to **less than significant**.

### 5.4.15 Utilities and Service Systems

Construction of the proposed Project may affect existing overhead and underground utilities. Construction of the proposed Project would require the relocation of existing utilities while other utilities in the study area footprint would be protected in-place. Local water providers and wastewater infrastructure have available capacity to serve the temporary, incremental demands associated with construction of the proposed Project. During construction, the proposed Project would be required to implement an SWPPP as required by the NPDES program administered by the Central Valley Regional Water Quality Control Board. The SWPPP would prevent ponding and ensure that storm water runoff during construction would be controlled without the need for new or improved infrastructure. Electric power required for construction of the proposed Project would be minimal and therefore new or improved infrastructure would not be needed. Natural gas would not be used during Project construction; as such, no new or improved infrastructure would be needed.

Operation of the proposed Project would result in increased use of water for landscaping in the proposed surface parking lot which can be supplied by existing water infrastructure. The station platform would not include restrooms; as such, the Project would not require new or improved wastewater treatment facilities based on operation. Railroad tracks permit water to percolate through to the ground. As such, proposed siding track and new mainline track would not result in the creation of substantial new areas of impervious surface, and increases in storm water runoff would be minimal. Installation of storm water drainage or retention infrastructure would not be required along the tracks. It should be noted that the proposed surface parking lot and access road are currently paved, and the proposed Project would not introduce new impervious surfaces. The construction of the station platform would result in new paved areas that could potentially change drainage patterns and result in increased storm water runoff due to the addition of impervious surfaces. Storm water infrastructure would be installed or reconfigured as necessary to serve these new and/or modified impervious surfaces. Such infrastructure would connect to the local storm drain system in areas with existing storm drain facilities.

New telecommunications facilities owned and operated by SJRRC or train operators would be required for safety and communication with trains and operations and are included as part of the proposed Project. These facilities would generally be located in the existing UPRR right-of-way and away from known sensitive areas to avoid impacts on cultural and biological resources and known hazardous materials. Because the new telecommunications facilities would be owned and operated by SJRRC or train operator for train usage only, operation of the proposed Project would not require construction or expansion of other private or public telecommunications facilities.

Construction and operation generated solid waste would be collected and hauled to the Sacramento County Kiefer Landfill (County of Sacramento 2017b). The Sacramento County Kiefer Landfill is permitted for 10,815 tons of solid waste per day and has a remaining capacity of 112,900,000 cubic yards; the landfill is projected to be in operation until 2064. Compliance with CALGreen requirements would assist in the attainment of solid waste reduction goals. Therefore, solid waste generated by construction of the proposed Project would not be in excess of State or local standards

or the capacity of local infrastructure and would not violate statutes and regulations related to solid waste. During operation, the proposed Project is anticipated to generate 1 ton of solid waste per month at the proposed station platform. This is the equivalent to a maximum daily rate of 0.03 ton, which is far below the 10,815 permitted tons per day accepted at the Sacramento Kiefer Landfill. Overall, the proposed Project would have a **less than significant** impact on utilities and service systems.

### 5.4.16 Wildfire

The proposed Project is located within a Local Responsibility Area Non-Very Fire Hazard Severity Zone according to the Fire Hazard Severity Zone Map for Sacramento County (CAL FIRE 2021). The proposed Project is located on flat terrain but given the routine fire breaks maintained within the UPRR corridor, the proposed Project is not anticipated to result in an increased risk of uncontrolled spread of a wildfire. The proposed Project includes the construction of a station platform, rail siding, new mainline track, pedestrian overcrossing, and a surface parking lot with access from Dwight Road all of which are not types of infrastructure or design features that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

The proposed Project would result in construction activities that could temporarily affect Dwight Road because of lane closures or narrowing for roadway and/or utility improvements. This could affect emergency response times or evacuation routes; however, the Project contractor would coordinate with emergency service providers to inform them of potential lane closures during Project construction activities. Once operational, the proposed Project would not interfere with any emergency response plan or emergency evacuation plan and this impact would be **less than significant**.

## 5.5 SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL IMPACTS

Section 15126.2(c) of the *CEQA Guidelines* requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The environmental effects of the proposed Project on various aspects of the environment are discussed in detail in **Chapter 4.0, Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures**, of this EIR. Project-specific and cumulative impacts that cannot be avoided if the Project is approved as proposed include:

- **Construction**
    - **Noise:** The operation of certain construction equipment and construction activities could generate noise exposure in excess of FTA thresholds. Nighttime construction near residential uses would have greater impacts than daytime construction, and would result in a potentially significant impact.

      Although the measures specified in **Mitigation Measure NOI-1** (see Section 4.5, *Noise*) would generally reduce the construction noise levels, the measures would not necessarily guarantee that sensitive residential receptors would not be exposed to noise levels exceeding the 80 dBA limit during the day, or the 70 dBA limit at night. In addition, given the active railroad, it is probable that construction would have to be conducted at night to avoid

disruption of freight and passenger rail operations, and to complete construction on schedule. Furthermore, a temporary sound wall may be effective in certain locations; but in many cases, the nature of the construction work makes use of such sound walls infeasible.

Construction-related noise would be short-term, and would cease after the construction is completed. Still, even with mitigation, the impact of temporary construction-related noise on nearby noise-sensitive receptors would remain a significant and unavoidable impact, particularly where heavy construction would occur adjacent to residences, and where construction would occur at night near residences.

# 6.0 ALTERNATIVES

## 6.1 ALTERNATIVES OVERVIEW

CEQA requires that an EIR include a reasonable range of feasible alternatives to the Project that meet most or all Project objectives while reducing or avoiding one or more significant impacts of the Project. According to *State CEQA Guidelines* Section 15126.6(f), the range of alternatives required in an EIR is governed by a "rule of reason" that requires an EIR to set forth only those alternatives necessary to allow a reasoned choice. An EIR need not consider every conceivable alternative to a project. Instead, the discussion of alternatives must "focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project." Where a potential alternative is examined but not chosen as one of alternatives, the *State CEQA Guidelines* require that an EIR briefly discuss the reasons the alternative was dismissed. An EIR is not required to consider alternatives which are infeasible. In addition to a range of alternatives, an EIR must discuss the "No-Project Alternative," which describes the reasonably foreseeable probable future conditions if the project is not approved (*State CEQA Guidelines* Section 15126.6).

The lead agency must consider the alternatives discussed in an EIR before acting on a project. The agency is not required to adopt an alternative that may have environmental advantages over the project if specific economic, social, or other conditions make the alternative infeasible (PRC Section 21002).

This chapter describes the alternatives to the Elk Grove Station Project and compares the anticipated environmental impacts of the alternatives to those of the Project, analyzed in **Chapter 4.0: Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures** of this EIR.

## 6.2 ALTERNATIVES DEVELOPMENT

The Project is constrained by the limits of the UPRR Sacramento Subdivision right-of-way; therefore, SJRRC and the City of Elk Grove considered parcels along this UPRR corridor that could serve as potential parking lots/stations in the Elk Grove community. In 2017 and 2018, the City of Elk Grove prepared the Multi-Modal Facility Feasibility Study identifying the feasibility and effectiveness of a multi-modal transit station on a commuter rail line to assist with the regional transportation needs of the City's residents and workers (City of Elk Grove 2018c). The feasibility study development process included both a technical effort and an extensive community outreach effort to identify the opportunities for a multi-modal station on a commuter rail line. The screening and evaluation process determined that the ideal site should connect to the planned rail service along the Sacramento Subdivision line along the western portion of the City. In the process of evaluating sites along the Sacramento Subdivision, the four final sites located along the Sacramento Subdivision that were evaluated in the feasibility study are:

- Site W1: 10338 Willard Parkway;
- Site W2: 9853 Franklin Boulevard;
- Site W3: 3000 Dwight Road; and
- Site W5: ABA Farms (south of Bilby).

The feasibility study did not identify a preferred or recommended location. Rather, the opportunities and constraints identified for each site are presented in **Table 6.2-A: Opportunities and Challenges Presented in the City's Feasibility Study**. The alternatives considered as part of the City's feasibility study are discussed in more detail in Section 6.3.3.

## Table 6.2-A: Opportunities and Challenges Presented in the City's Feasibility Study

| Site | Location | Comparison of Costs Between Sites | Potential Acquisition and Environmental Clearance Time Frames | Site Opportunities | Site Constraints |
|---|---|---|---|---|---|
| W1 | Bilby Road/ Willard Parkway | Low | ~ 2 – 2.5 years | Adequate site size. Land may be readily available. | Adjacent to residential community. Longer distance from current transit routes. |
| W2 | Elk Grove Boulevard/ Franklin Boulevard | Medium | ~ 4.5 – 5 years | Located adjacent to major commute corridor. | Environmental risks are highest of all options presented and mitigation is likely necessary. Adjacent to residential community. |
| W3 | Laguna Boulevard/ Dwight Road | Highest | ~ 2.5 – 3 years | Located near major commute corridor. Well served by existing transit. | Impacts an existing business and carries extensive right-of-way acquisition challenges. Potential environmental challenges. |
| W5 | Willard Parkway/ Kammerer Road (future) | Lowest | ~ 2 – 2.5 years | Lies near planned growth area of City and planned Kammerer Road. | Far from most of current City population and would require extensive re-routing of transit service. Located on important agricultural land. |

Source: City of Elk Grove 2018c

Like the proposed Project, Site W3 is located at the northeast corner of Laguna Boulevard/Dwight Road. However, Site W3 would have included the full acquisition of three parcels (APNs 119-0120-066, 119-1540-021, and 119-1540-010) for the proposed parking lot, whereas the proposed Project includes full acquisition of APN 119-1540-021 and partial acquisition of APN 119-0120-066. The City of Elk Grove Feasibility Study also considered full acquisition of APN 119-1540-010, which houses a water detention basin owned by the City of Elk Grove.

During preparation of the Valley Rail Sacramento Extension EIR, SJRRC considered an Elk Grove Station at the Cosumnes River Boulevard/Morrison Creek viaduct. SJRRC received several comments on the Valley Rail Sacramento Extension Draft EIR questioning the viability of the Cosumnes River Boulevard/Morrison Creek Station site. After close coordination with the City of Elk Grove, SJRRC removed the Cosumnes River Boulevard/Morrison Creek Station site from further consideration and worked with the City to identify an alternative that would serve the needs of the Elk Grove community. The SJRRC, in coordination with the City of Elk Grove and interested stakeholders, has identified the proposed Project site for a passenger rail station that would serve the Elk Grove

community. The proposed Project site is located near a major commute corridor (Laguna Boulevard) and is well served by transit. While the Project site is similar to Site W3 of the City's feasibility study, the proposed Project would not require acquisition of the parcel containing the water detention basin.

A No Project Alternative must be considered in an EIR. Therefore, the No Project Alternative is evaluated in comparison with the Project described in **Chapter 3.0: Project Description** and evaluated in **Chapter 4.0: Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures**. Eight alternatives were initially considered but withdrawn from further consideration for various reasons, such as the inability to meet the Project objectives, or because they would be economically infeasible. These alternatives are discussed in *Section 6.3.3: Alternatives Considered but Eliminated from Further Analysis*.

## 6.3 ALTERNATIVES ANALYSIS

The No Project Alternative is further described and analyzed in the sections below. The impacts of the No Project Alternative are qualitatively compared to the impacts of the Project in terms of impact type and severity.

### 6.3.1 No Project Alternative

Section 15126.6(e)(2) of the *State CEQA Guidelines* requires an EIR to include an analysis of the No Project Alternative. Evaluation of the No Project Alternative allows decision makers to compare the impacts of approving the Project with the impacts of not approving the Project. The No Project Alternative assumes that the Project would not be implemented but does not necessarily preclude use or development of the Project site. Rather, the No Project Alternative evaluated in this EIR considers "what would be reasonably expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services" (*State CEQA Guidelines* Section 15126.6 [e][2]).

For this analysis, the No Project Alternative assumes that no passenger rail station would be developed at the proposed Project site. Under the No Project Alternative, the site would continue to operate with existing uses (self-storage facility and parking). No station platform, pedestrian overcrossing, or roadway improvements would occur under the No Project Alternative; however, rail operations associated with the Valley Rail Sacramento Extension Project would occur in the Project corridor.

#### 6.3.1.1 Impact Analysis

**Aesthetics.** The No Project Alternative would result in no impacts on aesthetics because use of the existing site would not change. There would be no construction-related activities or change in views from the roadway, or residential uses. No new roadway approaches or bridge structure would be introduced to the visual setting. The No Project Alternative would not include new light sources and, like the proposed Project, would not result in impacts on scenic vistas or resources because there are no designated scenic highways or other resources in the Project area. With the No Project Alternative, implementation of Project Mitigation Measures AES-1 through AES-3 would not be required.

**Agriculture and Forestry Resources.** Like the proposed Project, the No Project Alternative would result in no impacts on agricultural and forestry resources because the site is not under a Williamson Act contract nor would Prime Farmland, Unique Farmland, or Farmland of Statewide Importance be converted. No timber resources occur in the Project area.

**Air Quality.** Under the No Project Alternative, there would be no construction activities, and therefore no construction-related dust generation or toxic air contaminant (TAC) emissions from construction equipment. Therefore, under the No Project Alternative, implementation of Mitigation Measure AIR-1, which would reduce construction-related air quality impacts to a less than significant level, would not be required.

Under the No Project Alternative, no station would operate at the proposed Project site; however, the No Project Alternative would still provide marginal improvements in comparison with existing conditions because of anticipated natural locomotive fleet turnover to more fuel-efficient Tier 4 engines, and due to reductions in on-road vehicle emissions associated with continuing engine advancements and more stringent air quality standards.

**Biological Resources.** Under the No Project Alternative, there would be no construction and therefore no disturbance of habitat areas. Because there would be no construction activities or operational changes in the project area, there would be no impacts on special status species in the vicinity of the project area. There would be no impact on biological resources; therefore, with the No Project Alternative, implementation of Project Mitigation Measures BIO-1 through BIO-5 would not be required.

**Cultural Resources.** Under the No Project Alternative, there would be no construction activities or ground disturbance. Therefore, there would be no potential to disturb known or unknown archaeological or historic resources. There would be no impact on cultural resources; therefore, with the No Project Alternative, implementation of Project Mitigation Measures CUL-1 through CUL-4 would not be required.

**Energy.** Under the No Project Alternative, there would be no construction activities, and therefore there would be no energy consumption from the use of gasoline or diesel fuels by construction equipment and vehicles. There would be no new passenger station in Elk Grove and therefore no energy consumption associated with electrical or natural gas use with such a facility. However, under the No Project Alternative there would also be no passenger rail station that serves Elk Grove, which means that the displacement of passenger vehicle miles (i.e., the shift of travelers from automobiles to passenger rail transit that would have resulted in reduced automobile VMT and thus reductions in personal [household] automobile fuel consumption) that would occur as a result of operation of a station within Elk Grove under the proposed Project (described in Section 3.6, *Energy*) would not occur under the No Project Alternative.

For the proposed Project's operation, the resulting reduction in VMT and the related decrease in vehicle fuel consumption would offset the operational energy demands of the proposed Project, resulting in a net energy savings relative to no project conditions. However, while this would be a less-than-significant impact of the No Project Alternative, travelers from the Elk Grove community may commute to alternate passenger rail stations (Sacramento or Lodi), but under this scenario the

reduction in personal automobile VMT and corresponding energy reduction would be less than under the proposed Project. Additionally, under the No Project Alternative, improvements in energy consumption could be realized due to anticipated natural locomotive fleet turnover to more fuel-efficient Tier 4 engines, and due to reductions in on-road vehicle fuel consumption associated with continuing engine advancements and more stringent fuel efficiency standards.

**Geology, Soils, and Seismicity.** Under the No Project Alternative, there would be no construction of proposed Project improvements, including the proposed station platform, pedestrian overcrossing, improvements to the parking lot, and roadway improvements on Dwight Road, and therefore no potential for the exacerbation of geological hazards such as seismic shaking, liquefaction, or landslides, and no potential for impacts related to soil instability or geotechnical concerns. There would be no impacts on geology and soils; therefore, with the No Project Alternative, implementation of Project Mitigation Measures GEO-1 and GEO-2 would not be required.

**Greenhouse Gases.** Under the No Project Alternative, there would be no construction activities, and therefore there would be no greenhouse gas emissions generated by construction equipment and vehicles. There would be no passenger rail station developed at the proposed Project site, which means that the displacement of passenger vehicle miles in the Elk Grove community (i.e., the shift of travelers from automobiles to passenger rail transit would result in reduced personal [household] automobile VMT and thus reductions in associated greenhouse gas emissions) as would occur under the proposed project (described in Section 3.8, *Greenhouse Gas Emissions* of the Initial Study) would not occur under the No Project Alternative. Under the No Project Alternative, travelers from the Elk Grove community may commute to alternate passenger rail stations (Sacramento or Lodi), but under this scenario the reduction in personal automobile VMT and corresponding reduction in greenhouse gas emissions would be less than under the proposed Project. However, there would still be reductions in greenhouse gas emissions over time under the No Project Alternative compared to existing conditions due to anticipated natural locomotive fleet turnover to more fuel-efficient Tier 4 engines, and due to reductions in on-road vehicle emissions associated with continuing engine advancements and more stringent fuel efficiency and emissions standards; impacts of the No Project Alternative would be less than significant. With the No Project Alternative, implementation of Project Mitigation Measure GHG-1 would not be required.

**Hazardous Materials and Wastes.** Under the No Project Alternative there would be no construction activity, which would preclude construction related use and potential accidental release of hazardous materials (including soils impacted with pesticides and herbicides). The No Project Alternative would not introduce new fire hazards or risk to people and structures in the Project area. There would be no changes to operations within the existing rail corridors, and therefore no changes to the use, storage, transportation, or disposal of hazardous materials. There would be no impacts on hazards or hazardous materials.

**Hydrology and Water Quality.** Under the No Project Alternative no impacts to hydrology and water quality would occur. No grading or other ground disturbance would occur and there would be no potential for temporary increases in sediment loads and pollutants or degradation of water quality. There would be no increase in the use of chemicals or pollutants associated with construction activities and as a result, no increase in hazardous materials in storm water and no change in flow rates and drainage patterns of storm water runoff. There would be no impacts on hydrology and

water quality; therefore, with the No Project Alternative, implementation of Project Mitigation Measure HYD-1 would not be required.

**Land Use.** The No Project Alternative would not result in changes to land use in the study area and would not divide an established community. No temporary or permanent easements of private lands for transportation uses would be needed. Therefore, the No Project Alternative would have no impacts on land use and planning.

**Mineral Resources.** The No Project Alternative would not result changes the availability of a known mineral resource. Impacts would be similar to the Project.

**Noise.** Under the No Project Alternative, there would be no construction activities or operational changes associated with the proposed Project in the Project area. Therefore, the significant unavoidable impact associated with construction-period noise would not occur and implementation of Mitigation Measure NOI-1 would not be required. However, operation of the Valley Rail Sacramento Extension passenger rail service would occur under the No Project. While the No Project Alternative would not include noise associated with public address announcements or trains stopping or starting, noise impacts would be similar to the proposed Project. With the No Project Alternative, implementation of operation-period Project Mitigation Measures NOI-2 through NOI-4 would not be required.

**Population and Housing.** Under the No Project Alternative, there would be no land acquisition, construction activities, or operational changes in the Project area. There would be no impacts associated with population and housing.

**Public Services.** Under the No Project Alternative, there would be no construction activities or operational changes in the Project area. Therefore, there would be no changes to demand for public services such as fire, police, schools, parks, or other public facilities. There would be no effect on response times for such service providers. There would be no impacts on public services.

**Recreation.** Under the No Project Alternative, there would be no temporary or permanent impacts to recreational resources. There would be no construction activities or operational changes in the Project area. Therefore, no recreational facilities would be impacted. There would be no impacts on recreational resources.

**Transportation.** Under the No Project Alternative, there would be no construction activities in the area studied for the proposed Project, and therefore there would be no construction-related traffic, disruption to existing rail or roadway operations, or other associated temporary impacts to the transportation network. There would be no passenger rail station that would operate at the Project site, which means that the displacement of passenger vehicle miles (i.e., the shift of travelers from automobiles to passenger rail transit, which would result in reduced automobile VMT and decreased congestion on I-5 and SR-99, benefiting traffic operations and good movement along these corridors) as would occur under the proposed Project (described in Section 4.7, *Transportation*) would be reduced under the No Project Alternative. It is anticipated that Elk Grove residents may choose to go to a different passenger rail station for longer trips but may rely on automobile travel

for shorter trips. For patrons traveling to different passenger rail stations under the No Project Alternative, the reduction in VMT would not be as substantial as under the proposed Project.

**Tribal Cultural Resources.** Under the No Project Alternative, there would be no construction activities or operational changes in the Project area. Therefore, there would be no potential for disturbing tribal cultural resources. There would be no impacts on tribal cultural resources.

**Utilities.** Under the No Project Alternative, there would be no construction activities or operational changes in the Project area. Therefore, there would be no changes to the demand for utilities or other services to serve such development, and no impacts associated with the provision of utilities. There would be no impacts on utilities and service systems.

**Wildfire.** Under the No Project Alternative, there would be no construction activities and no operational changes in the Project area. Therefore, there would be no potential for exacerbating the risk of wildfire in the Project area. There would be no impacts associated with the risk of wildfire.

### 6.3.2 Reduced Parking Lot Alternative

SJRRC is considering an alternative that includes a reduced parking lot footprint. Under the Reduced Parking Lot Alternative (**Figure 6.3-1: Reduced Parking Lot Alternative**), the proposed parking lot would be developed on one parcel (APN 119-1540-021). Access to the proposed station parking lot would be from a single driveway at the new Dwight Road intersection that would accommodate entrance and exit for passenger vehicles and buses. Buses would enter the station parking lot and pull into four loading/unloading bays on the south side of the parcel. Buses, after loading/unloading, would then continue east on the internal drive aisles shared with passenger vehicles through the station parking lot and loop around to the west to exit the station parking lot from the single driveway onto Dwight Road. While the Reduced Parking Lot Alternative would result in similar impacts to the proposed Project, the Reduced Parking Lot Alternative would likely result in a negligible reduction in construction-related air quality and noise impacts (given the smaller construction footprint); however, the Reduced Parking Lot Alternative would provide a single vehicle and bus access, which may impede circulation onsite. The Reduced Parking Lot Alternative would likely result in fewer parking spaces onsite, which may require the use of alternate parking facilities in the vicinity.

### 6.3.3 Environmentally Superior Alternative

Although it would avoid impacts, the No Project Alternative does not meet the basic transportation objectives defined for the Project. This alternative is not feasible and prudent because a passenger rail station would not be constructed at the proposed Project site. Providing a passenger rail station that would serve the Elk Grove community would reduce traffic congestion, improve regional air quality, and reduce greenhouse gas emissions. Under the No Project Alternative, this Project objective would not be realized.

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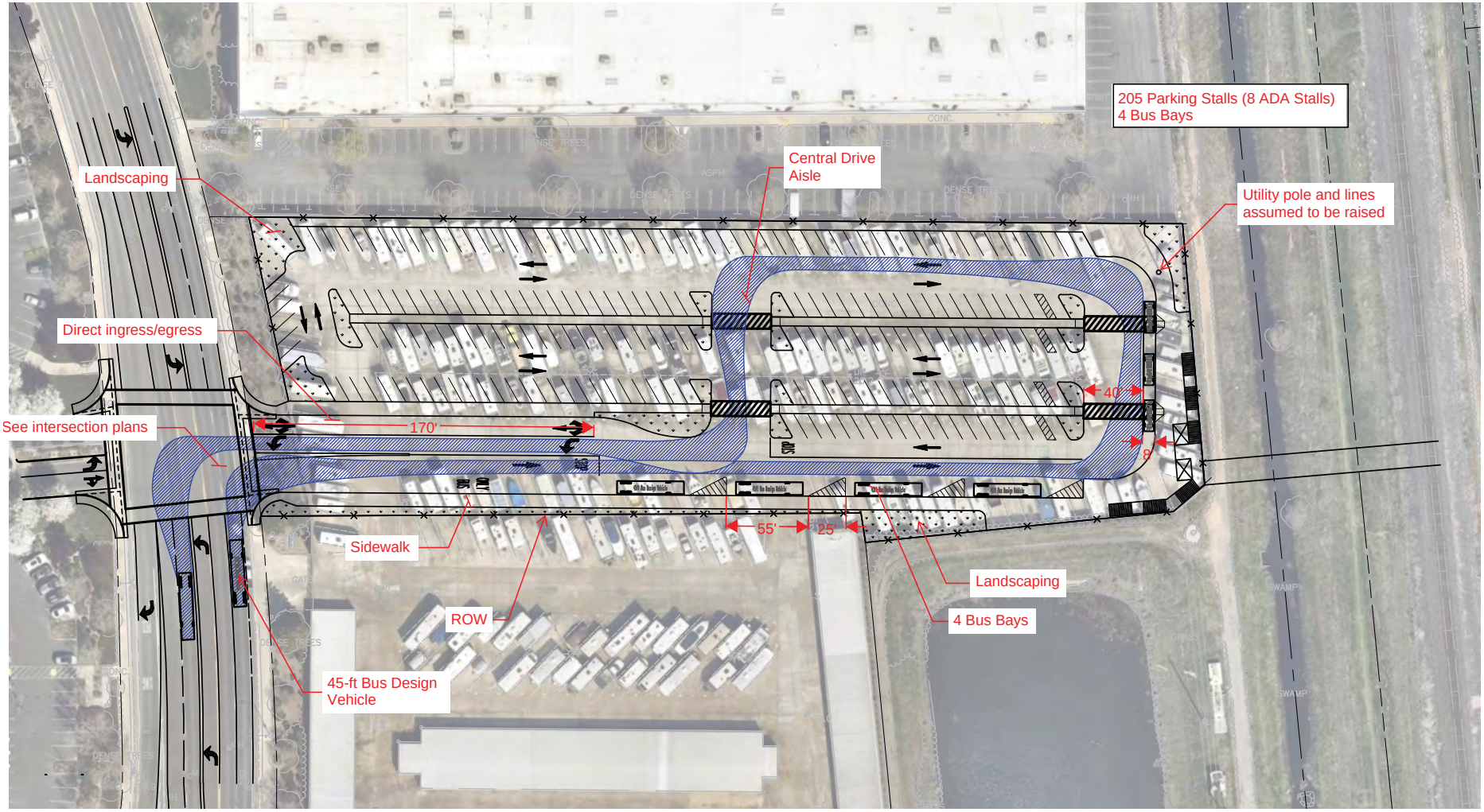


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FIGURE 6.3-1

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SOURCE: Mark Thomas

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*Elk Grove Station Project*

Reduced Parking Lot Alternative

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### 6.3.4 Alternatives Considered but Eliminated from Further Analysis

Nine alternatives were initially considered but withdrawn from further consideration for various reasons, such as the inability to meet the Project objectives, or because they would be economically infeasible. The withdrawn alternatives are show in **Figure 6.3-2: Alternatives Considered but Eliminated**. As described below, the withdrawn alternatives are not considered prudent or feasible alternatives to the proposed Project. These alternatives are further discussed below.

#### 6.3.4.1 Side-Loading Platform Alternative

During the NOP scoping process, SJRRC received a comment suggesting that the station platform be located to the west of the existing UPRR corridor, thereby eliminating the need for a center-loading platform and pedestrian bridge. Where two tracks are provided, UPRR requires either a center-loading platform or platforms on the outside of each of the tracks. A center-loading platform at the Project site minimizes the length of the pedestrian bridge linking the platforms to the parking lot to the west and elevated walkways, stairs, and elevators are only required on one platform. With a side-loading platform, passenger rail can only operate along one track and even if a second track is provided, switching operations is more complex to move trains from one track to another for passing and only one train can stop at the platform at a time. Additionally, a side-loading platform would impact the adjacent drainage channel and maintenance access road west of the UPRR corridor and would impact existing underground utilities at the Project site. Due to operational requirements two tracks are required at the Project site. Because of environmental impacts and operational flexibility, this alternative was eliminated from further consideration.

#### 6.3.4.2 Pedestrian Undercrossing Between Platform and Parking Lot Alternative

UPRR does not allow pedestrians to cross tracks at-grade to get to and from platforms. At the proposed Project site, two tracks are proposed with a center-loading platform. There is an existing drainage channel with a maintenance access road on the west side of the UPRR right-of-way that must be crossed between the parking lot and platform. UPRR requires a pedestrian overcrossing (bridge) or pedestrian undercrossing (tunnel) to be outside UPRR right-of-way when connecting the platform to adjacent station facilities such as parking lots. There is no available room between the top of the east bank of the drainage channel and the existing UPRR right-of-way to install improvements for an undercrossing that could include stairs, ramps and elevators. Extending the tunnel further west to the parking lot would require the pedestrian tunnel to be installed lower than the existing drainage channel and a pumping facility would be required to pump out any water that enters the pedestrian tunnel as the tunnel would be open at each end. There are existing underground utilities that would need to be relocated to accommodate a pedestrian tunnel. A pedestrian bridge provides the opportunity to connect the center-loading platform to the parking lot and also avoid impacts to the adjacent drainage channel and maintenance access road and protect in-place existing underground utilities at the Project site. Given the site constraints and UPRR requirements regarding placement of pedestrian tunnels/bridges, this alternative was eliminated from further consideration.

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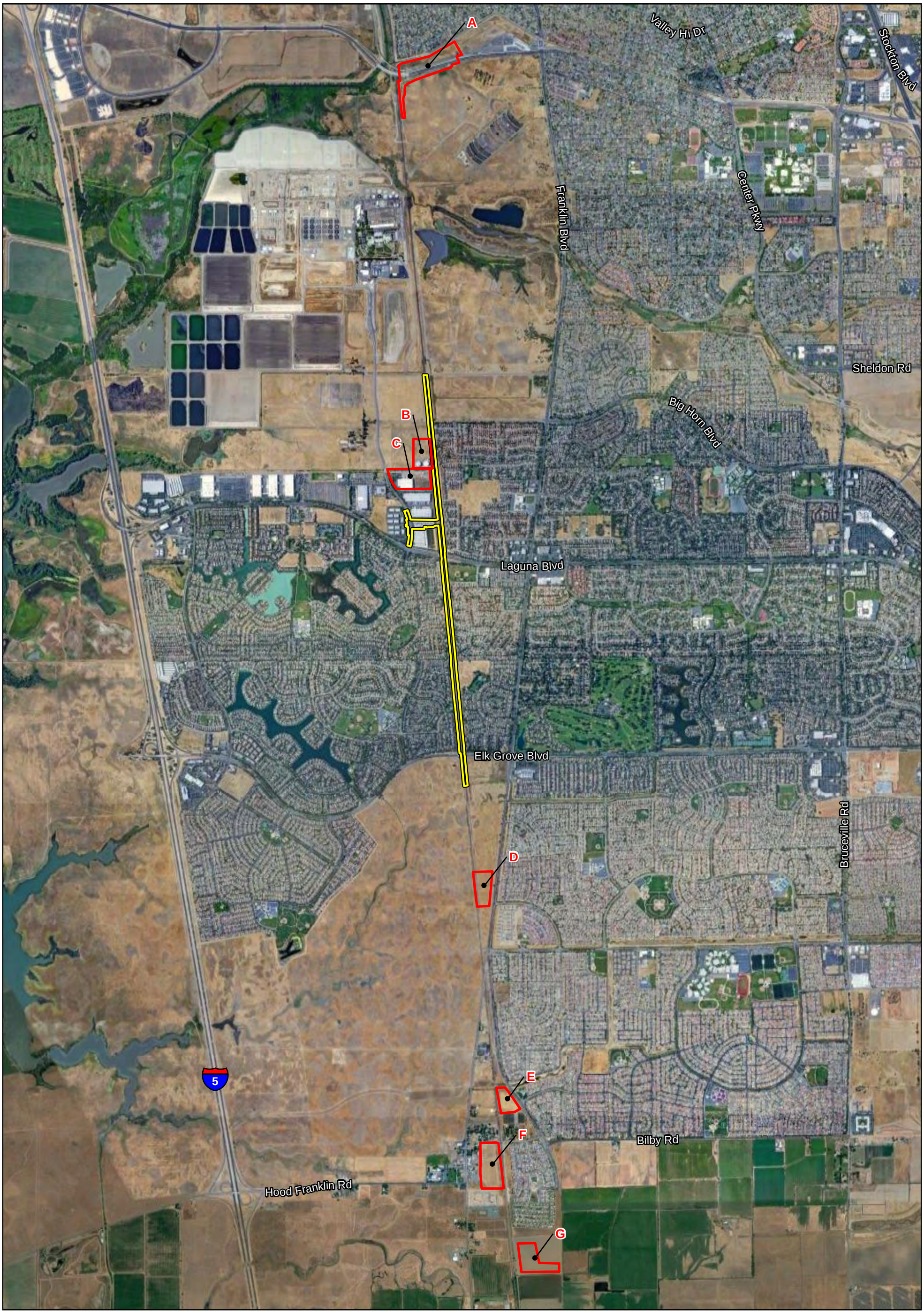


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LEGEND

Project Boundary

Alternative Sites Considered but Eliminated

FIGURE 6.3-2

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SOURCE: Google Maps (2020); Elk Grove (2021)

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*Elk Grove Station*

Alternatives Considered but Eliminated

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#### 6.3.4.3 Bilby Road/Willard Parkway (W1) Alternative

Alternative W1 in the City's Feasibility Study (identified as "E" on Figure 6.3-2) is located at 10338 Willard Parkway and considers track improvements and a new platform on a 12-acre site of three parcels north of Bilby Road and bordered by UPRR right-of-way to the west and Willard Parkway to the east. Site access for vehicles would be provided via a driveway connecting to the intersection of Willard Parkway and Matina Drive. Alternative W1 has no direct bus service; the closest bus stop is located approximately 1 mile away at the intersection of Franklin Boulevard and Whitelock Parkway and services Routes 11 and 111, which offer both peak commuter and local service. This alternative was dismissed due to proximity to the population of Elk Grove/South Sacramento County, the proximity of connecting bus service, and a lack of support from adjacent neighborhoods.

#### 6.3.4.4 Elk Grove Boulevard/Franklin Boulevard (W2) Alternative

Alternative W2 (identified as "D" on Figure 6.3-2) is located at 9853 Franklin Boulevard, is located within the Stone Lakes National Wildlife Refuge, and consists of an 8-acre portion of the single, larger parcel (APN 132-0020-003) bounded by the UPRR to the west, Franklin Boulevard to the east, and Elk Grove Boulevard to the north. This alternative was dismissed due to its location within the Stone Lakes National Wildlife Refuge, the presence of wetlands/vernal pools near the planned multi-modal station, and a lack of support from adjacent neighborhoods.

#### 6.3.4.5 Dwight Boulevard (W4) Alternative

This alternative (identified as "C" on Figure 6.3-2) is located at 3238 Dwight Road and considers track improvements and a new platform on Dwight Road on a site bounded by UPRR right-of-way to the east, Dwight Road to the west, and the Elk Grove city limit to the north. This alternative was dismissed due to site-specific complexities related to the parcel, including potential displacement of an existing business, environmental constraints, and the elimination by the City of Elk Grove in their *2018 Multi-Modal Facility Feasibility Study*.

#### 6.3.4.6 Willard Parkway/Kammerer Road (planned) (W5) Alternative

Alternative W5 (identified as "G" on Figure 6.3-2) is located east of the UPRR and south of Bilby Road and consists of a 10-acre portion of the single, larger parcel (APN 132- 0132-022) with a total area of 73.73 acres. This alternative considered track improvements and a new platform in the southern portion of Elk Grove. Site access for vehicles would be provided via a driveway connecting to the future Willard Parkway extension. Bicycle and pedestrian access would be provided via paths adjacent to the vehicle access driveway. This alternative was dismissed due to its remote location with no direct bus service, proximity to the population of Elk Grove/South Sacramento County, and potential impacts to important agricultural lands.

#### 6.3.4.7 Franklin Boulevard/Bilby Road Alternative

This alternative (identified as "F" on Figure 6.3-2) is located east of the southeast corner of the Franklin Boulevard/Bilby Road intersection and considers track improvements and a new platform in the southern portion of Elk Grove. Site access would be provided via a new eastern leg of Hood Franklin Road and from Bilby Road. This alternative was dismissed due to its proximity to the

population of Elk Grove/South Sacramento County and its remote location with no direct bus service.

#### 6.3.4.8 Sanitation District Alternative off Dwight Road

This alternative (identified as "B" on Figure 6.3-2) considered track improvements and a new platform along the southeast corner of Sacramento Regional Sanitation Bufferlands property. Access was proposed from Dwight Road. This alternative was dismissed due to opposition from the Sacramento Regional Sanitation District in that they could potentially expand to the south and will not allow a reduction in their buffer zone.

#### 6.3.4.9 North Elk Grove Station Alternative

This alternative (identified as "A" on Figure 6.3-2) considered construction of a new station (with variants) to be constructed on a 32-acre site beneath the Cosumnes Boulevard/Morrison Creek Viaduct near the existing SacRT Franklin Light Rail Transit Station in Sacramento. This alternative was dismissed following circulation of the Valley Rail Sacramento Extension Draft EIR due to opposition from the Sacramento Regional Sanitation District and concerns raised by agencies and organizations regarding potential environmental impacts of the site.

# 7.0 REPORT PREPARATION

## 7.1 REPORT PREPARERS

### 7.1.1 San Joaquin Regional Rail Commission

**Address:** 949 E. Channel Street
Stockton, CA 95202

**Personnel:** David Ripperda, Former Manager of Capital Programs
Dan Leavitt, Manager of Regional Initiatives

### 7.1.2 Pennino Management Group

**Address:** 1949 W. Kettleman Lane, Suite 200
Lodi, CA 95242

**Personnel:** Bryan Pennino, Program Manager

### 7.1.3 Mark Thomas & Company

**Address:** 701 University Avenue, Suite 200
Sacramento, CA 95825

**Personnel:** Matt Brogan, P.E.
David Williams, P.E., Senior Project Manager
Cynthia Horner

### 7.1.4 LSA Associates, Inc.

**Address:** 1504 Eureka Road, Suite 310
Roseville, CA 95661

**Personnel:** Theresa Wallace, AICP, Principal in Charge
Amanda Durgen, Associate Environmental Planner, Project Manager
Amy Fischer, Principal, Air Quality
J.T. Stephens, Principal, Noise
Justin Roos, Associate, GIS
Cara Carlucci, Senior Environmental Planner
Chris Graham, Senior Environmental Planner
Kat Hughes, Ph.D., AICP, Senior Environmental Planner
Mike Trueblood, Senior Biologist, GIS
Jordan Roberts, Noise Specialist
Matt Phillips, Graphics
Meredith Canterbury, GIS
Stephanie Powers, Document Management
Steve Dong, Document Management

### 7.1.5 Fehr & Peers

**Address:** 555 Capitol Mall, Suite 510
Sacramento, CA 95814

**Personnel:** David Robinson, PE, Principal
Kristin Calia, Principal

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