DRAFT

Subsequent Initial Study and Mitigated Negative Declaration for the Pleasant Grove Boulevard Widening Project

Lead Agency:

City of Roseville
311 Vernon Street
Roseville, California 95678

November 2022

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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Subsequent Initial Study and Mitigated Negative Declaration for the Pleasant Grove Boulevard Widening Project Roseville, California

SCH No. 2019080418

Prepared For

CITY OF ROSEVILLE CALIFORNIA

311 Vernon Street
Roseville CA. 95678

Prepared By:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2525 Warren Drive
Rocklin, California 95677

November 2022

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
AB	Assembly Bill
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
Amsl	Above Mean Sea Level
ANSI	American National Standards Institute
BCC	Birds of Conservation Concern
BERD	Built Environment Resource Directory
BGS	Below Ground Surface
BLM	Bureau of Land Management
BMP	Best Management Practices
BP	Before Present
BRA	Biological Resources Assessment
Caltrans	California Department of Transportation
CARB	California Air Resource Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CH_4	Methane
CHL	California Historical Landmarks
CHP	California Highway Patrol
CHRIS	California Historic Resources Information System Center
CIP	Capital Improvement Program
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNP	Cumulative No Project
CNPS	California Native Plant Society
CO2	carbon dioxide
CO	carbon monoxide
CPP	Cumulative Plus Project
CRPR	California Rare Plant Ranks
CUPA	Certified Unified Program Agency
dBA	A-Weighted Decibel
DBH	Diameter Breast Height
DHS	Department of Health Services
DOF	Department of Finance
DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EIR)	Environmental Impact Report
EMFAC	EMission FACtor model
EPP	Existing Plus Project
ESA	Endangered Species Act
FHWA	Federal Highway Administration

Term	Description
FTA	Federal Transit Administration
GHG	Greenhouse Gas
GLO	General Land Office
GMP	Groundwater Management Plan
GPU	General Plan Update
HCP	Habitat Conservation Plan
I-	Interstate
IS)	Initial Study
kWh	Kilowatt-Hours
Ldn	average daily noise levels
L_{eq}	equivalent noise level
LID	Low-Impact Development
LOS	Level of Service
MND	Mitigated Negative Declaration
Mph	Miles Per Hour
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
MSL	Mean Sea Level
N_2O	Nitrous Oxide
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NIOSH	National Institute for Occupational Safety and Health
NO_X	Nitrous Oxides
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	National Resources Conservation Service
O_3	Ozone
OHP	Office of Historic Preservation
PCAPCD	Placer County Air Pollution Control District
PCCP	Placer County Conservation Program
PG&E	Pacific Gas & Electric Company
$PM_{2.5}$	Fine Particulate Matter (PM less than 2.5 microns in diameter)
PM_{10}	Coarse Particulate Matter (PM less than 10 microns in diameter)
Ppm	Parts Per Million
PPV	Peak Particle Velocity
PRC	Public Resources Code
RCEM	Roadway Construction Emissions Model
RMC	Roseville Municipal Code
ROG	Reactive Organic Gas
RPA	Registered Professional Archaeologist
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SMARA	Surface Mining and Reclamation Act
SPCCP	Spill Prevention, Control, and Countermeasure Plan
SO_2	Sulfur Dioxide

Term	Description
SR	State Route
SSC	Species of Special Concern
SSSC	Side Street Stop-Sign-Controlled Intersection
SVAB	Sacramento Valley Air Basin
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCR	Tribal Cultural Resources
THRIS	Tribal Historic Information System
UAIC	United Auburn Indian Community
UCMP	University of California Museum of Paleontology
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
VMT	Vehicle Miles Travelled

1.0 INTRODUCTION

1.1 Introduction

This Subsequent Initial Study/Mitigated Negative Declaration (IS/MND) addresses the potential environmental impacts of the City of Roseville's proposed Pleasant Grove Boulevard Widening Project (Project) in accordance with the California Environmental Quality Act (CEQA). The City, as CEQA Lead Agency, proposes to widen an approximately 1.3-mile section of Pleasant Grove Boulevard to address existing and expected future traffic congestion and improve circulation consistent with the City's Transportation System Capital Improvement Program. The Project consists of widening Pleasant Grove Boulevard from two to three lanes in each direction beginning at approximately 1,500 feet east of Foothills Boulevard extending to approximately 700 feet west of Woodcreek Oaks Boulevard. Widening would primarily occur to the interior roadway median, which is sized to accommodate the additional travel lane, while preserving existing exterior curb, gutter, and sidewalk improvements.

1.2 Prior CEQA Documentation

The Project is identified and analyzed in the City of Roseville 2035 General Plan Update (GPU) Final Environmental Impact Report (State Clearinghouse #2019080418) (City of Roseville, August 5, 2020). The GPU EIR identifies the addition of two travel lanes (one in each direction) to Pleasant Grove Boulevard generally between Foothills Boulevard and Woodcreek Oaks Boulevard (*Figure 1-1*). However, the GPU EIR did not identify or include analysis of Project related striping and turn lane modifications proposed west of Woodcreek Oaks and east of Foothill's Boulevard. This IS/MND is a Subsequent CEQA document based largely on information contained in the GPU EIR and evaluates the project in its entirety and not just the project modifications not previously included in the GPU EIR.

The City's evaluation of the potential effects of the project modifications follows the approach provided in Section 15162 of the CEQA Guidelines, and as interpreted and described by the California Supreme Court. CEQA Guidelines Section 15162 was validated by the California Supreme Court in Friends of the College of San Mateo Gardens v. San Mateo County Community College District (2016) 1 Cal.5th 937 as applying to MNDs. In that decision, the Court further held that "when there is a change in plans, circumstances, or available information after a project has received initial approval, the agency's environmental review obligations 'turn on the value of the new information to the still pending decision making process.' (Marsh v. Oregon Natural Resources Council (1989) 490 U.S. 360, 374 [104 L. Ed. 2d 377, 109 S. Ct. 1851] (Marsh).) If the original environmental document retains some informational value despite the proposed changes, then the agency proceeds to decide under CEQA's Subsequent review provisions whether project changes will require major revisions to the original environmental document because of the involvement of new, previously unconsidered significant environmental effects."

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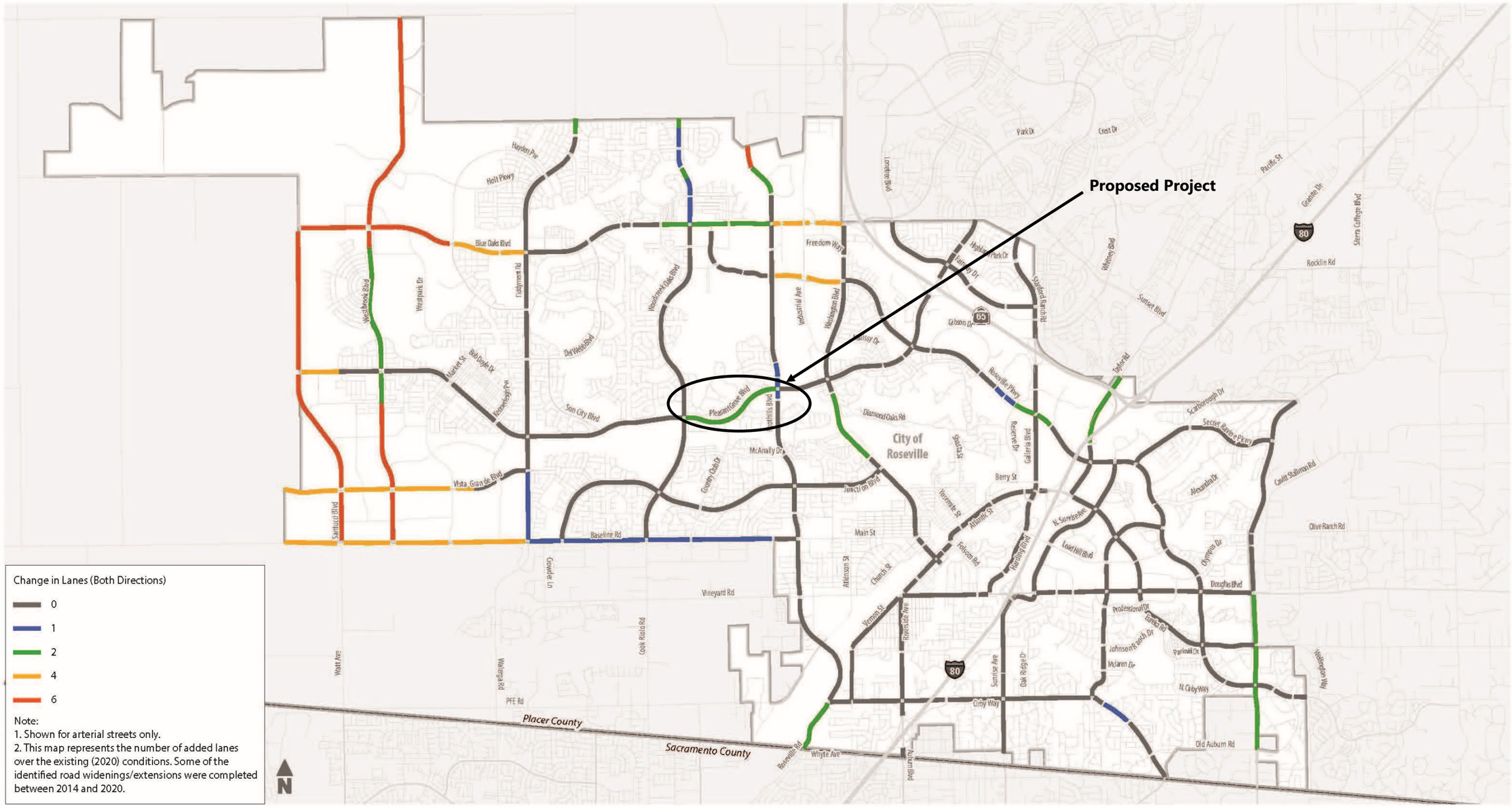

Source: Fehr & Peers, 2020.

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Figure 1-1. General Plan Lane Increases
2021-260 Pleasant Grove Boulevard Widening Project

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Chapter 4, *Environmental Checklist*, describes the current environmental baseline conditions for the Project and analyzes the potential environmental impacts of the proposed Project modifications. The analysis first summarizes the GPU EIR impact findings applicable to the Project. This is followed by analysis of whether the project would result in a new significant impact, substantially more severe impact, a less-than-significant impact with additional mitigation, or no new impact compared to that disclosed in the GPU EIR. The Initial Study checklist in Chapter 4 has been modified to be consistent with these impact determinations. All pertinent mitigation measures identified in the GPU EIR will be applied to the subsequent Project. In addition, where new potential impacts or substantially greater impacts are identified, new mitigation measures are proposed to reduce potential impacts to a less-than-significant level. In addition, for the issues of biological resources, tribal cultural resources and paleontological resources, this Subsequent IS identifies new "Project Level" substitute mitigation measures that are found to be equally as effective at reducing potential impacts to a less-than-significant as those presented in the GPU EIR.

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2.0 PROJECT DESCRIPTION

2.1 Project Location and Background

Pleasant Grove Boulevard is an existing four- and six-lane arterial road that runs east to west through the north central portion of the City of Roseville (*Figure 2-1*). It begins east of State Route (SR) 65 at the City's eastern boundary with the City of Rocklin and extends west approximately 6.3 miles to Westbrook Boulevard near the City's western boundary. Pleasant Grove Boulevard, which experiences heavy daily traffic congestion, serves as one of the main east-west travel corridors connecting residents traveling from the West Roseville area to popular shopping and dining destinations and Class A office buildings in the North Central Roseville Specific Plan area. Pleasant Grove Boulevard provides a vital economic link from residential areas to shopping and employment centers via its connections with other major arterial thoroughfares, including Roseville Parkway, Washington Boulevard, Foothills Boulevard, Woodcreek Oaks Boulevard, Sun City Boulevard, Fiddyment Road and Westbrook Boulevard, as well as to regional highways including SR-65 and Interstate (I-) 80.

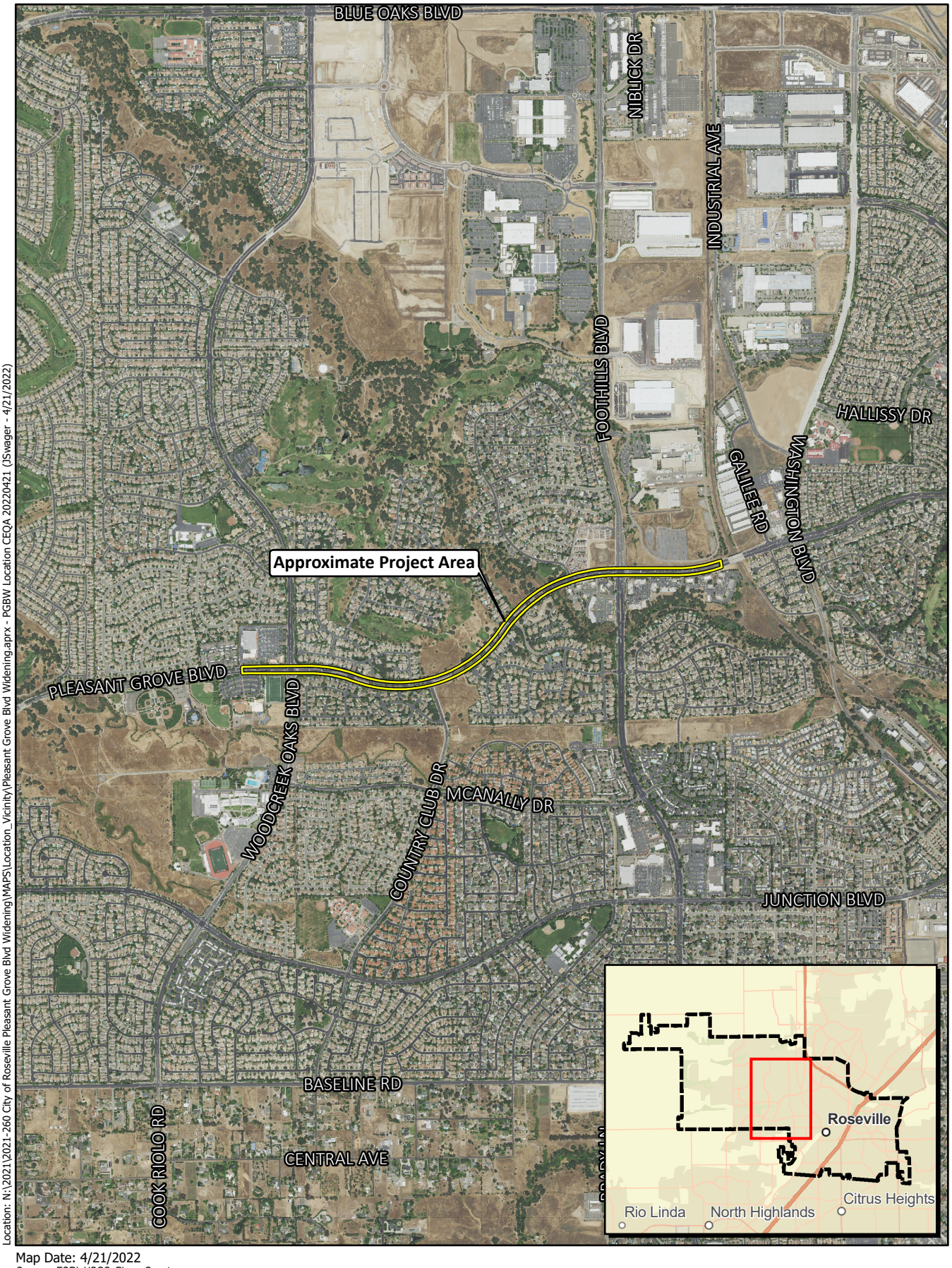
2.2 City of Roseville Transportation System 2035 Capital Improvement Program

The City's Transportation System 2035 Capital Improvement Program (CIP) identifies planned improvements to the city-wide road network to reduce congestion and enhance accessibility for motorists, pedestrians, and cyclists. Transportation system CIP improvements are funded by traffic impact fees assessed on new development. The proposed Project would implement certain planned CIP improvements within the Project Limits with funding provided by the CIP fee program. No federal funding would be used for the Project.

2.2.1 Community Outreach

On April 27, 2022, the City hosted an open house at the Martha Riley Library to allow community members the opportunity to learn about the Project, ask questions, and provide feedback on the proposed design and construction approach. The open house was attended by approximately 40 community members. Community input focused on the following:

- Clarification on the limits of Project widening.
- Limitations and restrictions on turning movements at side street stop-sign-controlled intersections.
- Preservation of trees and vegetation in the median.
- Lane closures and duration during construction.
- Congestion at Foothills and Pleasant Grove Boulevard intersection.
- Status and design of bike lanes.
- Potential effects to existing exterior roadside landscaping.



Location: N:\2021\2021-260 City of Roseville Pleasant Grove Blvd Widening\MAPS\Location_Vicinity\Pleasant Grove Blvd Widening.aprx - PGBW Location CEQA 20220421 (JSwager - 4/21/2022)

Map Date: 4/21/2022

Sources: ESRI, USGS, Placer County

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Scale in Feet
0 2,000

Figure 2-1. Project Location and Vicinity

2021-260 City of Roseville Pleasant Grove Widening

- Increased traffic noise.
- Potential for increased speeding due to road widening.

2.3 Existing Conditions

Within the Project limits, Pleasant Grove Boulevard is primarily a four-lane roadway with Class II bike lanes, meandering sidewalks and associated landscaping, a variable width landscaped median, and a posted speed limit of 45 Miles Per Hour (mph). Immediately east of the Project limits, Pleasant Grove Boulevard widens to a six-lane roadway east of Foothills Boulevard and serves as a four-lane roadway west of the Project limits. No on-street parking exists within the Project limits.

The existing median within the Project limits was sized to accommodate the proposed widening to provide a third through-lane in each direction. Portions of the existing median accommodate landscaping consisting of shrubs, native oaks, and ornamental trees. Some native oaks (*Quercus* sp.) within the median and roadside landscape areas pre-date road construction and are of substantial size, creating a tree lined canopy in some locations.

All existing arterial road intersections within the Project limits are signal-controlled with pedestrian-activated crosswalks and include single, double, and triple left-turn lanes. Where needed, existing curbs within the Project Limits and that are the responsibility of the City that do not meet current Americans with Disabilities Act (ADA) standards would be upgraded as part of the Project. In addition, the following three side street stop-sign-controlled intersections exist within the Project Limits.

- Pleasant Grove Boulevard & Birkdale Drive/Retreat Way
- Pleasant Grove Boulevard & Laporte Drive/Hemingway Drive
- Pleasant Grove Boulevard & Misty Wood Drive

Full turning movements are currently allowed at the above intersections.

2.4 Project Purpose, Need and Objectives

The Project purpose is to decrease existing and future traffic congestion as well as improve circulation consistent with the City's Transportation System CIP and applicable General Plan policy, while enhancing safety for motorists, pedestrians, and cyclists. The Project would increase Pleasant Grove Boulevard vehicle capacity consistent with the existing six-lane section located east of the Project limit to SR-65. The Project purpose also includes improving existing pedestrian curb ramps at crosswalk intersections within the Project limits consistent with current ADA requirements.

The Project has been anticipated since 1989 and is proposed now because of the degree to which AM and PM Peak Hour traffic demand is impacting Level of Service (LOS) within the Project limits, and because some existing pedestrian facilities don't meet current ADA standards. Combined, these needs create traffic operation deficiencies for motorists, pedestrians, and bicyclists, resulting in moderate delays and wasted fuel, which are expected to be exacerbated by anticipated increases in traffic from expected future population and employment growth.

Based on the above purpose and need, the Project objectives include implementing appropriate adopted CIP transportation system improvements within the Project limits to:

- Improve vehicular traffic flow and level of service.
- Improve vehicular, pedestrian and bicycle mobility consistent with current ADA requirements and City standards.
- Address anticipated utility requirements to minimize the future need for trenching/road cuts within newly paved areas.
- Retain median and roadside landscape trees and/or include replacement trees and landscape plantings consistent with City policy to the degree feasible.

2.5 Proposed Project

The proposed Project includes widening of Pleasant Grove Boulevard from two to three lanes in each direction beginning 1,500 feet east of Foothills Boulevard to 700 feet west of Woodcreek Oaks Boulevard (Project Limits).

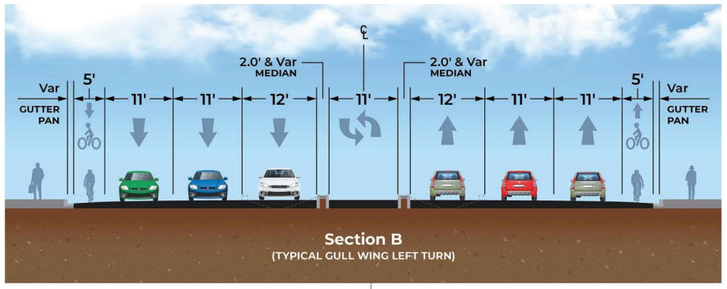
2.5.1 Project Components and Characteristics

The overall road widening Project is shown on *Figures 2-2* and *2-3*. The primary project components are described below.

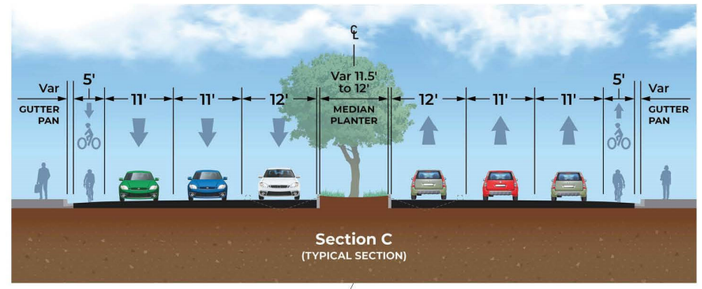
The location and limits of proposed road widening, lane striping and related Project improvements are shown on *Figures 2-2* and *2-3*. As shown, the Project would widen Pleasant Grove Boulevard from four to six travel lanes, configured as three eastbound and three westbound lanes, from the existing six-lane section east of Foothills Boulevard west through Woodcreek Oaks Boulevard. Road widening would primarily occur to the interior median, which is sized to accommodate the additional travel lanes while preserving the roadway's existing exterior curb, gutter, and sidewalk. With one small exception (see *Right-of-Way Acquisition*), all road widening will occur within the existing right-of-way.

Proposed widening between Misty Wood Drive and Woodcreek Oaks Boulevard would be accomplished by removing a portion of the existing median and adding a third lane in each direction of travel on the inside of the existing roadway.

At the Foothills Boulevard intersection, the free right-turn lane island at the northwest corner of the intersection would be removed and replaced with a dedicated right-turn lane from southbound Foothills Boulevard to westbound Pleasant Grove Boulevard. Widening east of Foothills Boulevard would be accommodated by relocating the west-to north-bound right-turn lane to the north, allowing area for an additional third westbound through lane to extend the south bound left-turn lane storage. Striping would be modified on Pleasant Grove Boulevard to provide an additional third through lane in each direction of travel at the Woodcreek Oaks Boulevard intersection. The proposed Project would join existing roadway improvements approximately 700 feet west of Woodcreek Oaks Boulevard.



Section B
(TYPICAL GULL WING LEFT TURN)



Section C
(TYPICAL SECTION)

PLEASANT GROVE BLVD WIDENING PROJECT

SHEET 1 OF 2

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Figure 2-2. Preliminary Road Widening (West)
2021-260 Pleasant Grove Boulevard Widening Project

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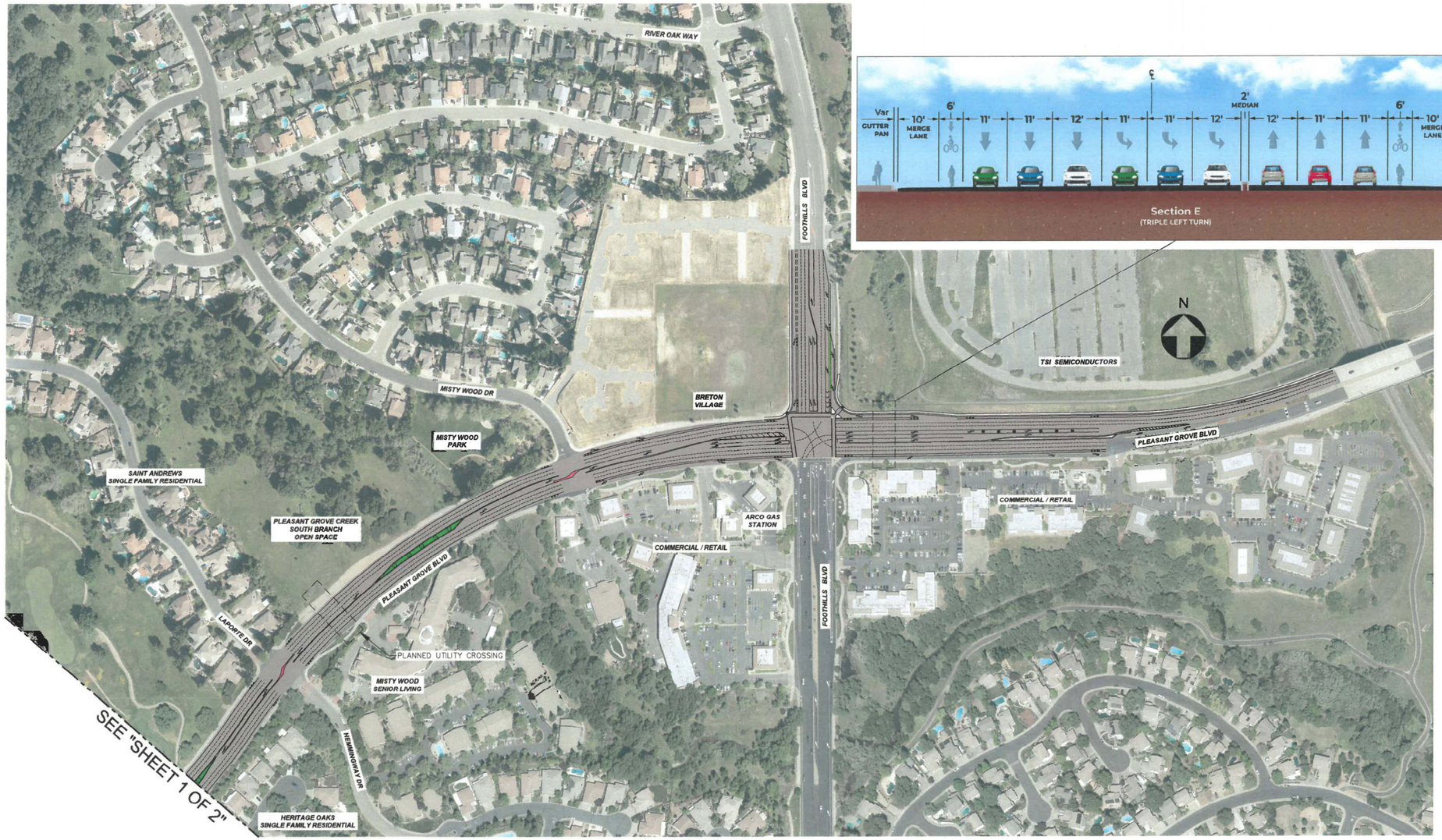

CITY OF ROSEVILLE CALIFORNIA

PLEASANT GROVE BLVD WIDENING PROJECT

SHEET 2 OF 2

PSOMAS

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Figure 2-3. Preliminary Road Widening (East)
2021-260 Pleasant Grove Boulevard Widening Project

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2.5.1.1 Landscape Median Tree Removal

Pleasant Grove Boulevard was originally designed and constructed to accommodate the planned future road widening to occur within the interior landscape median. The existing center median supports both planted ornamental landscape trees and native oaks. Some of the native oaks were existing and incorporated into the center median at the time of road construction. Given Pleasant Grove Boulevard was constructed over 25 years ago, some of the original native oaks preserved in the median, and some that were planted in the median, have grown to a size that now conflicts with planned road widening and require removal.

Native oak trees are protected in Roseville by the City's Tree Preservation Ordinance (Roseville Municipal Code Chapter 19.66 Tree Preservation). The City's Tree Ordinance regulates removal of native oaks and construction activities that occur within a native oak's protected zone (defined as the drip line + 1 foot). For a detailed discussion of ordinance requirements, refer to the *Biological Resources* section of this Initial Study.

Consistent with ordinance requirements, an Arborist Report has been prepared for the Project (Callander Associates Landscape Architecture, Inc. September 16, 2022.) (IS/MND Appendix A). The Arborist Report included a Level 2 – Basic Visual Assessment of all trees within the Project Limits in accordance with the International Society of Arboriculture's Best Management Practices (BMPs). This assessment level is limited to observation of conditions and defects readily visible from the ground.

During Arborist Report field work, specific data was gathered for each tree including the tree's species, Diameter Breast Height (DBH) and dripline radius. Utilizing this data, the tree's overall structural condition and vigor were separately assessed ranging from *excellent* to *poor* based upon the observed characteristics noted within the tree and the Arborist's best professional judgment. Notable characteristics were documented and recommendations on a tree-by-tree basis were recorded and are presented in the Arborist Report *Tree Inventory Spreadsheet* (see Appendix A). Recommendations are based on the understanding that trees would be introduced into a developed roadway environment and may require maintenance and/or may not be suitable for retention within the post-Project development setting.

A total of 64 trees were inventoried and evaluated for structural integrity, health or risk concerns, and their approximate location to proposed road improvements. As part of this effort, a total of 46 trees were found to be protected trees as defined by the City's Tree Preservation Ordinance. The City of Roseville defines a *Protected Tree* as any native oak tree equal to or greater than 6 inches diameter DBH, measured as a total of a single trunk or multiple trunks. The purpose of the field reconnaissance effort was to inventory, identify, and comment on the current structure and vigor of trees located within and/or overhanging the Project site. Based on the Arborist assessment, a total of 45 trees located within the existing center median are recommended for removal. Of these, 37 are *protected* native oak trees with a combined DBH of 446 inches. See Arborist Report Appendix A - Tree Disposition Map (contained herewith as Initial Study Appendix A) for the location of trees currently identified for removal.

Consistent with the City's Tree Preservation Ordinance (Roseville Municipal Code Ch. 19.66) and as further discussed in the biological resources section, a determination regarding removal of the balance of

protected trees would be made by the City Arborist (or designee) during construction after required critical roots are exposed for visual examination. At that time, the Project Arborist would determine if removal is warranted based on the extent of impact, health of the tree, and related safety and future maintenance considerations. Any tree removals identified during construction would be added to the Project's tree permit and mitigated consistent with City ordinance requirements. All recommended mitigation measures presented in this Initial Study for protected trees would be implemented by the City as part of the Project, conform to the City's Tree Preservation Ordinance, include special provisions for work within a tree's protected zone, and include a replacement ratio of 1 inch DBH of tree replaced for each one inch DBH of tree removed (1:1 ratio).

2.5.1.2 Signal Modifications and Pedestrian Curb Ramp ADA Improvements

Minor modifications to traffic signal pole placement would be implemented where necessary to accommodate proposed road widening, turn lane, and restriping improvements. Signal light timing would also be adjusted to optimize intersection LOS operations throughout the Project limits. In addition, any non-conforming City owned pedestrian crosswalk curb ramps would be reconstructed consistent with ADA requirements.

2.5.1.3 Left Turn Lane Adjustments – Configuration and Storage Modifications

The following adjustments to existing left-turn lane configuration and storage would be implemented to improve intersection operations:

Pleasant Grove Boulevard/Woodcreek Oaks Boulevard Intersection.

Storage capacity of the westbound left-turn lane would be maintained by shortening the eastbound left-turn pocket at Birkdale Drive. As the turn lanes are back-to-back, this would be an improved allocation of storage to better suit the demands for each movement.

Pleasant Grove Boulevard/Country Club Drive Intersection

The westbound left-turn pocket would be extended from 290 to 350 feet to better accommodate morning and afternoon peak traffic queues.

Pleasant Grove Boulevard/Foothills Boulevard Intersection

Additional westbound left-turn storage would be installed within the existing Pleasant Grove Boulevard median and by widening to the north, which also accommodates the additional third lane. As shown in *Figure 2-3*, the ultimate proposed improvements would provide left-turn storage of 450, 800, and 800 feet for left-turn lanes 1, 2, and 3, respectively.

2.5.1.4 Side street Stop-Sign-Controlled intersections– Left Turn Movement Modifications

The following three side street stop-sign-controlled intersections within the Project Limits would be modified to provide right-in, right-out, and left-in turn movements.

- Pleasant Grove Boulevard & Birkdale Drive/Retreat Way
- Pleasant Grove Boulevard & Laporte Drive/Hemingway Drive
- Pleasant Grove Boulevard & Misty Wood Drive

Under existing conditions, full turning movements are currently allowed at the above existing side street stop-sign-controlled intersections. However, as shown in *Figures 2-2 and 2-3*, existing left-turn and through movements at the above intersections would be restricted by a proposed center median. The center median is required to conform with City policy prohibiting left turns or through movements across an unsignalized 6-lane roadway. Thus, right turns out onto westbound Pleasant Grove Boulevard and left and right turns into these neighborhood side streets from Pleasant Grove Boulevard would be allowed for motorists exiting and entering these neighborhoods. Eastbound vehicles exiting these neighborhoods would turn right and head west to the first available signalized intersection to make a U-turn and then proceed east on Pleasant Grove Boulevard.

2.5.1.5 Grading and Excavation

Grading would be allowed only as necessary to construct the Project within designated work areas. Most grading/excavation would not exceed four to five feet Below Ground Surface (BGS). Exceptions include trenching and drilling for utility relocations/extensions and to reset traffic signal poles following road widening. Utility relocations are described below and would require trenching up to 9 feet BGS and signal poles would require drilling up to 16 feet BGS.

Construction of the Project would require the excavation of existing asphalt concrete, base material, concrete pavement, and miscellaneous concrete and in-situ soils. Excess material is anticipated and would become the property of the Contractor. Excavated material would be reused on the Project Site to the extent feasible, would be kept out of private property, and out of the City storm drain system and surface waters by implementing construction BMPs.

2.5.1.6 Water Quality Treatment Basins

To address post-construction stormwater treatment, the Project will include design elements that are consistent with and implement requirements of the West Placer Storm Water Quality Design Manual (City of Roseville April 2016) adopted by the City on May 5, 2016, or the most current version.

2.5.1.7 Utility Relocations, Extensions, and Adjustments

The Project includes relocation of existing utilities that conflict with proposed road widening. This includes adjusting lids to grade throughout the Project as necessary to conform with grading and newly paved areas, and the following:

- Relocation of an existing Roseville Electric utility box currently located on the north side of Pleasant Grove Boulevard approximately 870 feet east of Foothills Boulevard to the north of planned road widening.
- Utility extensions (i.e., water, storm drain, electric and fiber) shown on *Figure 2-3* (Planned Utility Crossing) necessary to serve a planned City groundwater well located on the north side of Pleasant Grove Boulevard west of Misty Wood Park, and
- Adjustments to existing storm drain facilities located within landscape medians to conform to the widened road.
- Relocation of the recycled water line along the north side of Pleasant Grove Boulevard just east of Foothills Blvd.

2.5.1.8 Right-of-Way Acquisition

With one exception, all proposed improvements are within the City-owned right-of-way. The sole exception is at the northeast corner of the Foothills Boulevard intersection, where private property acquisition is required to accommodate approximately 950-linear feet of widening of the existing right-of-way by approximately 13.7 feet (or 13,000 square feet).

2.6 Construction Schedule and Approach

Project construction is scheduled for spring 2023 and is expected to take 10 months to complete. Construction activities would take place mostly between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 8:00 a.m. and 8:00 p.m. Saturday and Sunday, in compliance with the City noise ordinance (RMC Ch. 9.24). In order to minimize the disruption to the morning and afternoon peak hours, limited nighttime work will be allowed where it results in reduced construction traffic congestion (for example, at the intersection of Foothills and Pleasant Grove boulevards). The general construction phases, duration, and associated activities are identified in *Table 2-1***.** It is anticipated that portions of Phases 2 and 3 would overlap and include concurrent construction activity. Prior to construction, mobilization of equipment and supplies, as discussed below under Construction BMPs, the first order of work would include establishment of construction limits and installation of protections (i.e., temporary construction fencing) for any identified onsite Environmentally Sensitive Areas.

Table 2-1. Construction Phasing

Phase	Duration (Months)	Activity
Phase 1 – Pre-construction activities, mobilization and site layout	2	Establish control points, survey, and field stake construction limits. Install environmental sensitive fencing and employ pre-construction BMPs. Clear and establish staging areas and temporary construction access roads. Mobilize heavy equipment, receive, and stockpile construction equipment and supplies.
Phase 2 – Grading, Underground Construction, and Tree Removal	2	Clear, grub, and remove vegetation and trees pre-approved for removal from work area. Conduct initial road grading activities, construct below-ground utility extensions and drainage facilities. Establish final road grades and fill slope limits.
Phase 3 – Construct road and landscape improvements	4	Reconstruct median curb to conform with road widening, install erosion control drainage facilities; lay aggregate base and pavement. Construct traffic signal modifications, pavement delineation and signage. Reconstruct irrigation to conform to new center median, plant trees and install landscaping.
Phase 4 – Construction closure activities	2	Clean up, restore temporarily disturbed areas, demobilize, open roadway.

2.6.1 Equipment and Materials Staging Area

Following establishment of environmental site controls, construction equipment and supplies would mobilize to the site. The contractor may also establish a temporary construction trailer for onsite contractor administrative functions. During construction, any contractor trailer and all equipment and materials would be stored within the designated Construction Staging Area shown on *Figure 2-4* or at an alternative location to be established and environmentally cleared by the Contractor and approved by the City.

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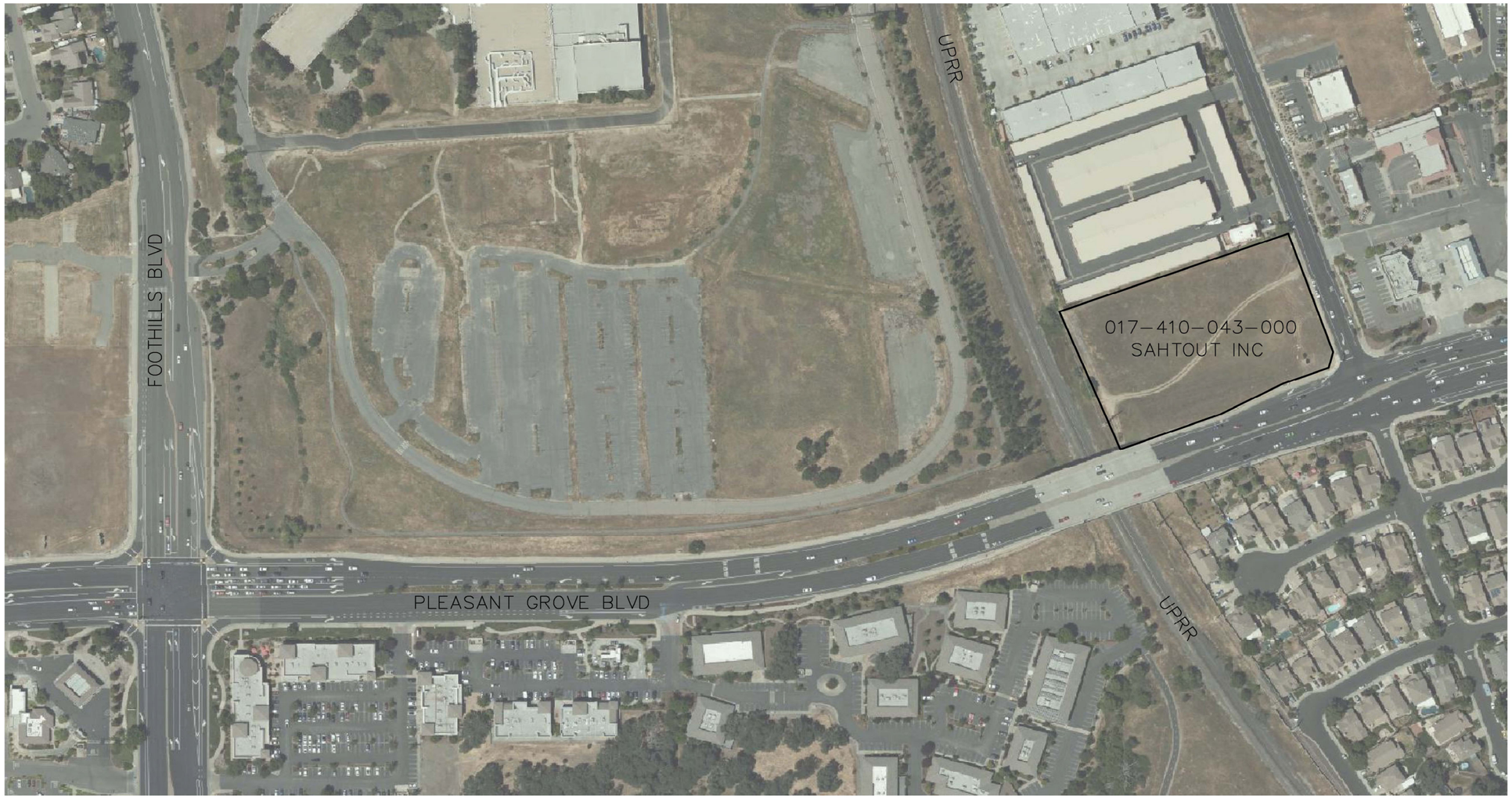

SCALE: 1"=100'

REVISIONS NO.	DESCRIPTION	DATE	BY

BENCH MARK ELEV. SEE NOTES

THE VERTICAL DATUM OF THIS MAPPING IS BASED ON THE CITY OF ROSEVILLE BENCHMARK 85, ADJUSTED TO NAVD88 BY ADDING A PROJECT FACTOR OF +2.16 FEET.

FIELD BOOK

SCALE
HORIZ. ____
VERT. ____

CITY OF ROSEVILLE CALIFORNIA

PSOMAS
1075 Creekside Ridge Way, Suite 200 Roseville, CA 95678 (916) 788-8122
DESIGNED BY: CHRIS BRAZIL DATE 02/2022
CHECKED BY: ____ DATE ____
DRAWN BY: CHRIS BRAZIL DATE 02/2022

PLEASANT GROVE BOULEVARD WIDENING PROJECT
STAGING AREA

SHEET — OF —

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Figure 2-4. Staging Area
2021-260 Pleasant Grove Boulevard Widening Project

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The Contractor would be responsible for obtaining all permits and rights for any staging area established as part of the Project. Depending on the construction phase, expected onsite equipment could include but is not limited to some combination of equipment listed in *Table 2-2* plus hand operated equipment.

Table 2-2. Construction Equipment List

Equipment	Potential Uses
Excavator	General earthwork, roadway excavation and drainage
Grader	General earthwork and roadway sub-grade preparation and structural section construction
Water trucks	Dust control and moisture conditioning of subgrade and base
Roller/compactor	General earthwork, backfill and structural section construction
Backhoe/trenching machine	Excavations
Concrete trucks/concrete pumps	Concrete flatwork, drainage elements, foundations, and piles
Dump trucks	Hauling materials on and off site
Flatbed trucks	Delivering construction materials and equipment
Pickup trucks	Personnel access
Cranes/forklifts	Moving construction equipment and materials
Paving Machine	Paving

2.6.2 Construction Best Management Practices

The City and its contractor would implement construction BMPs to avoid and minimize impacts on sensitive biological, cultural, and water resources, including adjacent vernal pool preserve areas. As discussed below, construction BMPs would include implementation of a Storm Water Pollution Prevention Plan (SWPPP) consistent with National Pollutant Discharge Elimination System (NPDES) permit requirements. SWPPP measures would minimize the potential for construction-related surface water pollution and ensure water quality is not compromised by erosion and/or sedimentation during construction. While Project construction is not expected to require surface water diversion, should conditions require, any water diversion would be installed in accordance with the provisions outlined in California Department of Transportation's (Caltrans) *Construction Site Best Management Practices for Clear Water Diversion* (Fact Sheet NS-5).

The following BMPs would be included in the Project specifications and implemented by the contractor as part of the Project.

BMP 1: **Temporary Fencing.** The City's contractor shall install construction barrier fencing (including sediment fencing and straw wattles) to prevent contaminants and debris from entering waterways, or adjacent vernal pool preserve areas. Before construction begins, the City or its contractor shall identify the locations for the barrier fencing and mark those locations with stakes or flagging.

BMP 2: **SWPPP.** A SWPPP shall be implemented as part of the NPDES Permit and a General Construction Activity Storm Water Permit to minimize the potential for sediments or contaminants to enter waterways.

BMP 3: **Equipment Contaminants.** The City shall comply with applicable stormwater ordinances, stormwater management plans, and BMPs to prevent or minimize the potential release of equipment-related petroleum contaminants into surface waters and groundwater. Implementation of standard construction procedures and precautions for working with petroleum and construction chemicals would further ensure that the impacts related to chemical handling during project construction would be minor.

BMP 4: **Debris/Demolition.** Construction of the proposed project would require the demolition and excavation of existing asphalt concrete, base material, concrete pavement, and miscellaneous concrete and in-situ soils. Excess material is anticipated and would become the property of the Contractor. To the extent feasible, excavated material would be re-used on the Project site, subject to approval by project inspectors.

BMP 5: **Erosion Control.** The project design shall incorporate permanent erosion control elements to ensure that stormwater runoff does not cause soil erosion. Erosion and sediment control plans would be prepared consistent with the City's Grading Ordinance, which requires reducing erosion and retaining sediment onsite.

BMP 6: **Toxic Materials Control and Spill Response Plan.** The following measures shall be incorporated into Project construction documents and implemented by the contractor to avoid or minimize the risk of spills or discharges of toxic materials into waterways.

- Prepare a hazardous material Spill Prevention, Control, and Countermeasure Plan (SPCCP) before construction that shall be implemented during construction.
- Prevent raw cement, concrete or concrete washings, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to aquatic life from contaminating the soil or entering waterways.
- Prevent discharge of drilling mud and/or fluids into the waterways by using appropriate containment, disposal, and storage methods.
- Prevent discharge of turbid water or sediment-laden runoff to the waterways by using sediment filters, diverting the water to a settling tank, and/or implementing other erosion and water quality control BMPs to ensure compliance with water quality requirements prior to discharging water back to the waterways.
- Clean up all spills immediately according to the SPCCP.
- Provide areas located outside the ordinary high water mark for staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants.
- Remove vehicles from the normal high-water area before any refueling and lubricating to prevent contaminants from being discharged to the waterways during

storm runoff. Contaminated water would be pumped to a holding tank for proper disposal.

- The construction contractor shall notify the City of Roseville Fire Department if evidence of soil or groundwater contamination is encountered during construction activities. Construction in that area shall be halted until the Fire Department has evaluated the find and remediation is completed, if necessary.
- The construction contractor shall comply with the California Occupational Safety and Health Administration standards for the storage and handling of fuels, flammable materials, and common construction-related hazardous materials and for fire prevention (California Labor Code, Division 5, Chapter 2.5).

BMP 7: **Traffic Management Plan.** The City shall require the construction contractor to implement a Traffic Management Plan, including a construction schedule and plan to meet the City's notice procedures before construction activities are initiated. This plan will identify general methods by which construction activities will be managed to minimize substantial delays to traffic. The traffic management plan shall include the following elements:

Communication: Develop and implement a public information campaign that describes the duration of the lane closures and recommends alternative routes. Particular attention shall be placed on special events (e.g., school graduations or Placer County Fairgrounds) that may attract unfamiliar users to the City's roadway system. The City Public Information Office shall also continue a public outreach program using various media sources throughout construction.

Wayfinding: Position and operate changeable message sign trailers and locate pedestrian signage at strategic locations to advise the traveling public of construction activities and temporary lane reductions and suggest alternate routes.

Emergency Vehicle Response: The City Public Works Department shall coordinate with the City Police and Fire Departments to ensure potential effects of temporary lane closures on emergency response have been addressed, including emergency vehicle routing, temporary changes in fire station servicing areas, and emergency vehicle pre-emption at signalized intersections.

BMP 8: **Noise Control Measures.** The following measures shall be incorporated into the Project construction specifications to reduce and control noise generated by construction-related activities:

- All construction equipment shall have sound-control devices no less effective than those provided on the original equipment.
- No equipment shall have an unmuffled exhaust.
- Stationary construction equipment shall be located as far as possible from sensitive uses; sensitive uses shall be identified on construction drawings; and excessive

equipment idling (greater than five minutes) shall be prohibited when the equipment is not in use.

2.6.2.1 City of Roseville Mitigating Ordinances, Guidelines, and Standards

As identified in the General Plan, the following ordinances, guidelines, and standards would be applied to the Project as applicable to reduce environmental impacts.

- Noise Regulation (Roseville Municipal Code [RMC] Ch.9.24)
- Urban Stormwater Quality Management and Discharge Control Ordinance (RMC Ch.14.20)
- Stormwater Quality Design Manual (Resolution 07-432)
- City of Roseville Design and Construction Standards (Resolution 07-137)
- Community Design Guidelines (Resolution 95-347)
- Tree Ordinance (RMC Ch. 19.66)

2.7 Regulatory Requirements, Permits, and Approvals

The City of Roseville is the CEQA Lead Agency for the proposed Project. To approve Project construction, the City Council must first comply with CEQA by adopting the IS/MND. The City Council could then consider the information contained in the IS/MND in making its decision to approve or deny the Project, approve the construction plans, and file a Notice of Determination with the State Clearinghouse.

The Project does not include federal funding, is not subject to the National Environmental Policy Act, and would not impact waters of the U.S. or State or any threatened or endangered plant or wildlife species. Thus, the Project is not expected to require permitting by any State or Federal resource agency acting in the capacity of a Responsible Agency under CEQA.

2.8 Consultation with California Native American Tribe(s)

Assembly Bill (AB) 52 requires that prior to the release of a CEQA document for a project, an agency begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the project if:

1. the California Native American tribe requested to the lead agency, in writing, to be informed by the Lead Agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe; and,

2. the California Native American tribe responds in writing, within 30 days of receipt of the formal notification, and requests the consultation. The City of Roseville notified United Auburn Indian Community (UAIC), Tsi Akim Maidu, Ione Band of Miwok Indians, and the Shingle Springs Band of Miwok Indians of the proposed Project on July 13, 2021.

A single response dated August 4, 2021 was received from the UAIC. In their response, UAIC declined formal AB52 tribal consultation but did request certain mitigation measures previously agreed to with the City that address unanticipated discovery of potential tribal cultural resources be included in the Initial Study Tribal Cultural Resources section. Further information on potential Tribal Cultural Resources in the Project Area, including a UAIC requested Tribal Cultural Resources (TCR) mitigation measure (TCR-1), is provided in Section 4.18 *Tribal Cultural Resources* of this IS/MND.

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3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the Project, involving at least one impact that is a *Potentially Significant Impact,* as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Hazards/Hazardous Materials	☐ Recreation
☐ Agriculture and Forestry Resources	☐ Hydrology/Water Quality	☐ Transportation
☐ Air Quality	☐ Land Use and Planning	☒ Tribal Cultural Resources
☒ Biological Resources	☐ Mineral Resources	☐ Utilities and Service Systems
☐ Cultural Resources	☐ Noise	☐ Wildfire
☐ Energy	☐ Paleontological Resources	☐ Mandatory Findings of Significance
☒ Geology and Soils	☐ Population and Housing	
☐ Greenhouse Gas Emissions	☐ Public Services	

Determination

On the basis of this initial evaluation:

I find that the Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	☐
I find that although the Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	☒
I find that the Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	☐
I find that the Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	☐
I find that although the Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Project, nothing further is required.	☐

Terri Shirhall, Environmental Coordinator

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4.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 Aesthetics

4.1.1 Environmental Setting

4.1.1.1 Regional Setting

State Scenic Highways

The California Scenic Highway Program protects and enhances the scenic beauty of California's highways and adjacent corridors. The California Department of Transportation (Caltrans) can designate a highway as scenic based on how much natural beauty can be seen by users of the highway, the quality of the scenic landscape, and if development impacts the enjoyment of the view.

According to the GPU EIR, there are no designated or eligible state scenic highways within or near the City of Roseville, and the City of Roseville is not visible from any officially designated or eligible state scenic highway.

4.1.1.2 Local Setting

Roseville 2035 General Plan

As discussed in the GPU EIR, the City of Roseville does not have any locally designated scenic highways. Thus, scenic highways are not analyzed in the GPU EIR.

4.1.1.3 Visual Character of the Project Site

Roseville and its environs are generally characterized as a transitional zone between the Central Valley's flat terrain and the Sierra Nevada foothills. On clear days, long-range views in the project vicinity include the Sierra Nevada to the east, the Sutter Buttes to the north, and the Coast Ranges to the west. The Project site lies within the Northwest Roseville Specific Plan, a primarily built and urbanized area of Roseville. Lands adjacent the Project site consist primarily of commercial, office, residential, recreational, and open space uses. Commercial development is concentrated at the northwest corner of the Pleasant Grove Boulevard/Woodcreek Oaks Boulevard intersection and at the southwest corner of the Pleasant Grove Boulevard/Foothills Boulevard intersection. Commercial and office uses exist south of Pleasant Grove Boulevard between Foothills Boulevard on the west and the Union Pacific Railroad on the east. Open space uses exist north and south of Pleasant Grove Boulevard between Country Club Drive and Misty Wood Drive and Misty Wood Park exists north of Pleasant Grove Boulevard just west of Misty Wood Drive. Portions of the Woodcreek Oaks Golf Course, located north of Pleasant Grove Boulevard between Country Club Drive and Laporte Drive, are also visible to Pleasant Grove Boulevard travelers.

Pleasant Gove Boulevard within the Project area includes ornamental trees, native oak trees and shrub plantings within both the over-sized center median (designed to accommodate proposed road widening) and adjacent roadside landscape areas. The adjacent landscape areas also accommodate Class 1

meandering pedestrian paths. The Pleasant Grove Boulevard center median and roadside landscape areas contain mature trees and shrubs. At the time Pleasant Grove Boulevard was constructed, existing native oaks trees were retained within these landscape areas. As a result, several oaks are now of substantial size and incompatible with proposed road widening.

The primary viewer groups that have views of the Project area include office and commercial center employees, shoppers, and nearby residents, including commuters accessing Highway 65 and Interstate 80 via Pleasant Grove Boulevard. Because Pleasant Grove Boulevard is an existing 4-lane arterial road, the Project segment includes existing streetlights, traffic signals and glare from vehicle headlights.

4.1.2 Aesthetics (I) Environmental Checklist and Discussion

Except as provided in Public Resources Code Section 21099, would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒

No New Impact

The GPU EIR concludes there are no scenic vistas within the Planning Area, nor is the Planning Area visible from any scenic vista; therefore, new development within the Planning Area would have a less-than-significant impact on scenic vistas.

As discussed in the GPU EIR, no scenic vistas are located within the City's Planning Area and thus there are no scenic vistas within the Project limits. Furthermore, the proposed widening Project between Foothills Boulevard and Woodcreek Oaks Boulevard is consistent with the General Plan's adopted CIP Program and therefore was anticipated by and evaluated in the GPU EIR. Thus, the Project is adequately addressed in the GPU EIR, there would be **no new impact** to scenic vistas and no mitigation is required.

Except as provided in Public Resources Code Section 21099, would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒

No New Impact

The GPU EIR concludes there is no designated or eligible state scenic highway within or in close proximity to the City's Planning Area, and the Planning Area is not visible from any officially designated or eligible state or locally designated scenic highway. Furthermore, the City of Roseville does not have any locally designated scenic highways. Thus, the Project is adequately addressed by the GPU EIR and there would be **no new impact** to scenic resources and no mitigation is required.

Except as provided in Public Resources Code Section 21099, would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from 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?	☐	☐	☐	☒

No New Impact

The GPU EIR concludes that, buildout of the General Plan would include development and public infrastructure and facilities that would change the existing visual character of the Planning Area. Implementation of General Plan policies, along with adherence to the City's Community Design Standards, as well as the requirements of the City's Municipal Code, and other adopted plans, would ensure the continuation of high-quality design and preservation of open space such that the General Plan would not conflict with applicable zoning or other regulations governing scenic quality. However, the change in existing visual character from undeveloped open space and agricultural land to developed urban land was found to be a significant and unavoidable impact by the GPU EIR.

Project construction activities would introduce heavy equipment, including backhoes, bulldozers, excavators, and/or similar machinery into the viewshed of all viewer groups, creating temporary effects on views of and from the Project site during construction. These activities would be visible from ground-level and elevated vantages. However, the visual effects of construction activities would not conflict with zoning or other regulations governing scenic quality because of their temporary character and the transience of viewers passing by the project site. Thus, there would be no new impact and no mitigation is required.

The Project is located in an urbanized area, along an existing road, and would be subject to all City zoning and other regulations governing scenic quality. For example, the Project is required to comply with the following which are intended to provide high-quality design: Community Design Guidelines, Design & Construction Standards, the Northwest Roseville Specific Plan, and the City of Roseville Municipal Code, including Chapter 19.66 Tree Preservation which requires inch per inch replacement for any regulated native oak tree removed. Implementation of related zoning and policy measures would ensure continuation of high-quality design and the preservation of visual character and quality. Thus, although the Project requires landscape median tree removal, the reconfigured median would be replanted with appropriately sized trees and shrubs consistent with existing adopted City policy and regulation. There would be **no new impact** and no mitigation is required.

Except as provided in Public Resources Code Section 21099, would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
d) Would the Project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

No New Impact

The GPU EIR found that Planning Area buildout would create significant new sources of substantial light or glare which could adversely affect day or nighttime views in the area. The GPU EIR concludes that it is not feasible to mitigate light and glare impacts completely without prohibiting the use of light in new development, and that no other feasible mitigation measures were available. Thus, the impact of creating a new source of light or glare was considered significant and unavoidable in the GPU EIR.

Proposed road widening would primarily occur into the center median of Pleasant Grove Boulevard, an arterial roadway with existing vehicle traffic/headlights and streetlights similar to other arterial roads in the City. Project improvements would be visually compatible with existing streetlights east and west of the Project segment, and would not create additional, substantial unnecessary light or glare, nor would the Project create a new source of substantial light or glare in an area not already experiencing these conditions. Thus, there would be **no new impact** to light or glare which could adversely affect day or nighttime views in the area and the Project is adequately addressed by the GPU EIR. No new mitigation is required.

4.1.3 Mitigation Measures

No new impacts were identified, and no mitigation measures are required.

4.2 Agriculture and Forestry Resources

4.2.1 Environmental Setting

According to the California Department of Conservation online Important Farmland Finder Map (https:/conservation.ca.gov/maps.conservation.ca.gov/DLRP/CIFF/Al, 2016), the Project site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance nor is the site zoned for agriculture or forestry use or is under Williamson Act contract. The California Important Farmland Finder Map identifies the site as Urban and Built-Up Land.

The City's Zoning Ordinance describes the permitted land uses and development standards for each of the designated zoning districts in the City on a parcel-by-parcel basis. The proposed Project is a road widening project and the Project site is designated Major Arterial by the General Plan Circulation Element and has no designation under the City of Roseville Zoning Ordinance. Furthermore, the Planning Area does not contain existing City of Roseville zoning for 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.

4.2.2 Agriculture and Forestry Resources (II) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

No New Impact

The GPU EIR concludes that buildout of the Plan Area would not convert Important Farmland to nonagricultural uses and no impact would occur.

As discussed above, the California Important Farmland Finder Map identifies the Project site as Urban and Built-Up Land. Thus, the Project would not 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. There would be **no new impact** and no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

No New Impact

The GPU EIR found that the Planning Area is not zoned for agricultural uses and no parcels are under Williamson Act contracts (Placer County 2020). Therefore, buildout of the General Plan, including the proposed Pleasant Grove Boulevard Widening Project, would not conflict with existing zoning for agricultural uses or a Williamson Act contract. **No new impact** would occur, and no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒

No New Impact

As discussed above, as a roadway, the Project site is not zoned nor does the City zoning ordinance include zone districts for 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)). Thus, Project implementation would not conflict with or cause the rezoning of any of the above zoning designations and there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

No New Impact

The proposed Project primarily involves road widening into an existing landscaped center median. The Project would not impact forest land or result in conversion of forest land to non-forest use. There would be **no new impact** and no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
e) 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 New Impact

The proposed Project primarily involves road widening into an existing landscaped center median. The Project would not result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. There would be **no new impact** and no mitigation is required.

4.2.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.3 Air Quality

4.3.1 Environmental Setting

The following section is derived from the *Air Quality and Greenhouse Gas Emissions Assessment for the Pleasant Grove Boulevard Widening Project* (ECORP 2022a, Appendix B-1) The City of Roseville is located within Placer County. The California Air Resource Board (CARB) has divided California into regional air basins according to topographic features. The City of Roseville portion of Placer County is located in a region identified as Sacramento Valley Air Basin (SVAB). The SVAB is comprised of nine air districts. The air basin is bounded by the Coastal and Diablo Mountain ranges on the west, the Sierra Nevada to the east, and the San Joaquin Valley to the south. The environmental conditions of Placer County are conducive to potentially adverse air quality conditions. The basin area traps pollutants between two mountain ranges to the east and the west. This problem is exacerbated by a temperature inversion layer that traps air at lower levels below an overlying layer of warmer air. Prevailing winds in the area are generally from the south and southwest. Sea breezes flow over the San Francisco Bay Area and into the Sacramento Valley, transporting pollutants from the large urban areas. Growth and urbanization in Placer County have also contributed to an increase in emissions.

Both the U.S. Environmental Protection Agency (USEPA) and CARB have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone (O_3), carbon monoxide (CO), particulate matter (PM), nitrogen oxides (NO_x), sulfur dioxide (SO_2), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The portion of Placer County encompassing the City of Roseville and the Project Site is designated as a nonattainment area for the federal O_3 standards and is also a nonattainment area for the state standards for O_3 and coarse particulate matter (PM_{10}) (CARB 2019).

The local air quality regulating authority in Placer County is the Placer County Air Pollution Control District (PCAPCD). The PCAPCD is designated by law to adopt and enforce regulations to achieve and maintain ambient air quality standards. The PCAPCD responsibilities include preparing plans for the attainment of ambient air quality standards, adopting and enforcing air pollution rules, issuing permits for and inspecting stationary air pollution sources, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing state and federal programs and regulations. The PCAPCD has also adopted various rules and regulations that are designed to reduce and control pollutant emissions from project's construction and operational activities. The following provisions applicable to the proposed Project are summarized as follows:

- Rule 202 Visible Emissions: A person shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three (3) in any one (1) hour which is: a.) As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or b.) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in section (A) above.
- Rule 205 Nuisance: A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which causes injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause to have a natural tendency to cause injury or damage to businesses or property.
- Rule 213 Transfer of Gasoline Transfer into Stationary Storage Containers: The provisions of this rule shall apply to the transfer of gasoline into any stationary storage container.
- Rule 214 Transfer of Gasoline into Vehicle Fuel Tanks: The provisions of this rule shall apply to the transfer of gasoline from any stationary storage tank into any motor vehicle fuel tank.
- Rule 218 Architectural Coating: To limit the quantity of volatile organic compounds in architectural coating supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the District.
- Rule 228 Fugitive Dust: To reduce the amount of particulate matter entrained in the ambient air, or discharge into the ambient air, as a result of anthropogenic (manmade) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions.
- Rule 502 New Source Review: The purpose of this rule is to provide for the review of new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct for such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.

4.3.2 Air Quality (III) Environmental Checklist and Discussion

Except as provided in Public Resources Code Section 21099, would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒

No New Impact

The GPU EIR concludes that long-term operational emissions would be generated from day-to-day activities associated with residential and non-residential land uses allowed under the General Plan. Associated operational emissions were found to exceed applicable PCAPCD thresholds. Thus, the level of operational emissions could conflict with or obstruct implementation of the applicable air quality plan.

Even with implementation of all feasible General Plan policy and mitigation measures, this impact was considered significant and unavoidable by the GPU EIR**.**

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the California Clean Air Act requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The PCAPCD is the agency responsible for enforcing many federal and state air quality requirements and for establishing air quality rules and regulations. The PCAPCD attains and maintains air quality conditions in Placer County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. As part of this effort, the PCAPCD has developed input to the SIP. The 2017 Sacramento Regional 2008 8-Hour Ozone Attainment and Reasonable Further Progress Plan (including 2018 updates), the PM_{10} Implementation/Maintenance Plan and Re-Designation Request (SMAQMD 2010), and $PM_{2.5}$ Implementation/Maintenance Plan and Re-designation Request for Sacramento $PM_{2.5}$ Nonattainment Area (SMAQMD 2013) constitute the current SIP for the Placer County portion of the SVAB and include the PCAPCD's plans and control measures for attaining air quality standards. These air quality attainment plans are a compilation of new and previously submitted plans, programs (e.g., monitoring, modeling, permitting), district rules, state regulations, and federal controls describing how the state will attain ambient air quality standards.

The SIP plans and control measures are based on information derived from projected growth in Placer County in order to project future emissions and then determine strategies and regulatory controls for the reduction of emissions. Growth projections are based on the general plans developed by Placer County and the incorporated cities in the county. As such, projects that propose development consistent with the growth anticipated by the respective general plan of the jurisdiction in which the proposed development is located would be consistent with the SIP. In the event that a project would propose a development that is less dense than that associated with the general plan, the project would likewise be consistent with the SIP. If a project, however, proposes a development that is denser than that assumed in the general plan, the project may be in conflict with the SIP and could therefore result in a significant impact on air quality.

Growth projections for Placer County in the Project area are based on the City of Roseville General Plan. As such, projects in the city that propose development consistent with the growth anticipated by the General Plan would be consistent with PCAPCD's air quality planning efforts. The Project does not include development of new housing or employment centers and would not induce population or employment growth. Rather, the Project seeks to address existing and future traffic deficiencies and improve circulation consistent with the City's Transportation System 2035 Capital Improvement Program (CIP). Therefore, the Project would not affect local plans for population growth and the proposed Project would be considered consistent with the population, housing, and employment growth projections utilized in the preparation of PCAPCD air quality planning efforts. Furthermore, as described in detail below, the Project would not

exceed the PCAPCD's short-term construction or long-term operational thresholds and in turn would not violate any air quality standards, and thus would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment.

The Project would not conflict with or obstruct implementation of the applicable air quality plan. **No new impact** would occur, and no additional mitigation is required.

Except as provided in Public Resources Code Section 21099, would the Project	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☒

No New Impact

The GPU EIR concludes that generation of emissions of criteria air pollutants and precursors could exceed an ambient air quality standard or contribute substantially to an existing or predicted air quality exceedance. Even with implementation of all feasible General Plan Policy and mitigation measures, this impact was found to be significant and unavoidable.

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, 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 individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

Project construction emissions were modeled using the Roadway Construction Emissions Model (RCEM), version 9.0.0. RCEM is a spreadsheet-based model that is able to estimate exhaust emissions from heavy-duty construction equipment, haul trucks, and worker commute trips as well as fugitive dust from the construction of a new roadway, road widening, roadway overpass, levee or pipeline projects.

The proposed Project improvements are intended to address existing and future traffic deficiencies and improve circulation consistent with the City's Transportation System 2035 CIP. According to the Traffic Study prepared for the Project (Fehr & Peers 2022), the proposed Project itself would not generate automobile trips; but would instead increase the capacity in order to improve traffic operations. This would affect traffic patterns in the City. Therefore, potential impacts of the Project from mobile-source air quality emissions during the post-construction operations is evaluated based upon AM and PM peak hour vehicle idling times as provided by Fehr & Peers (Fehr & Peers. 2022). Emissions generated from automobile idling in the Project Limits are estimated with the use of the 2021 version of the EMission FACtor model (EMFAC). EMFAC 2021 is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by CARB to predict changes in future emissions from on-road mobile sources including

cars, trucks, and buses in California. EMFAC 2021 includes the latest data on automobile fleets and travel activity within Placer County.

Projected operational emissions associated with proposed post-construction operations are compared to the existing baseline, which includes the current operations accommodated by the segment of Pleasant Grove Boulevard beginning 1,500 feet east of Foothills Boulevard to 700 feet west of Woodcreek Oaks Boulevard. This segment encompasses the following facilities:

- Pleasant Grove Boulevard/Woodcreek Oaks Boulevard intersection (currently 43 – 35 seconds of delay per vehicle)
- Pleasant Grove Boulevard/Birkdale Drive-Retreat Way intersection (currently 79 – 268 seconds of delay per vehicle)
- Pleasant Grove Boulevard/Country Club Drive intersection (currently 10 – 20 seconds of delay per vehicle)
- Pleasant Grove Boulevard/Laporte Drive-Hemingway Drive intersection (currently 204 – >300 seconds of delay per vehicle)
- Pleasant Grove Boulevard/Misty Wood Drive intersection (currently 37 - 278 seconds of delay per vehicle)
- Pleasant Grove Boulevard/Foothills Boulevard intersection (currently 44 – 58 seconds of delay per vehicle)

In addition to identifying emissions associated with the overall post-construction operations, emissions generated by the expected seconds of delay (automobile idling) at each intersection are identified individually.

4.3.2.1 Construction Impacts

Emissions associated with Project construction would be temporary and short-term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through construction of the proposed Project: operation of the construction vehicles (i.e., tractors, forklifts, pavers), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving activities. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts.

Construction-generated emissions associated with the proposed Project were calculated using the RCEM model. Appendix B Air Quality provides more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the proposed Project are summarized in *Table 4.3-1*. Construction-generated emissions are short-term and of temporary duration, lasting only if construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the thresholds of significance.

Table 4.3-1. Construction-Related Criteria Air Pollutant Emissions

Description	Pollutant (maximum pounds per day)		
	ROG	**NO_X**	**PM_{10}**
Grubbing/Land Clearing	2.30	18.52	10.85
Grading/Excavation	2.60	34.11	11.46
Drainage/Utilities/Subgrade & Paving	2.96	41.20	11.81
PCAPCD Potentially Significant Impact Threshold	82	82	82
Exceed PCAPCD Threshold?	No	No	No

Source: RCEM version 9.0.0. Refer to Appendix B-1 for Model Data Outputs.
Notes: Emission calculations account for the import/export of 1,000 cubic yards of soil and asphalt material daily during the grading/excavation phase and the import/export of 2,000 cubic yards of soil and asphalt material daily during the drainage/utilities/subgrade and paving phase.

As shown in *Table 4.3-1*, emissions generated during Project construction would not exceed the PCAPCD's thresholds of significance. Therefore, criteria pollutant emissions generated during Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard. Thus, there would be **no new impact**.

4.3.2.2 Operational Impacts

The proposed Project improvements are intended to address existing and future traffic deficiencies and improve circulation consistent with the City's Transportation System 2035 CIP. According to the Traffic Study prepared for the Project (Fehr & Peers 2022), the proposed Project itself would not generate automobile trips; but would instead increase the capacity in order to improve traffic operations. This would affect traffic patterns in the city. Therefore, potential impacts of the Project from mobile-source air quality emissions during the post-construction operations is evaluated based upon AM and PM peak hour vehicle idling times as provided by Fehr & Peers (2022). Emissions generated from automobile idling in the Project Limits are estimated with the use of EMFAC 2021.

Projected operational emissions associated with proposed post-construction operations are compared to current operations accommodated by the segment of Pleasant Grove Boulevard beginning 1,500 feet east of Foothills Boulevard to 700 feet west of Woodcreek Oaks Boulevard. Long-term operational emissions are identified in *Table 4.3-2*. In addition to identifying emissions associated with the overall post-construction operations, emissions generated by the expected seconds of delay (automobile idling) at

each intersection (Pleasant Grove Boulevard/Woodcreek Oaks Boulevard intersection, Pleasant Grove Boulevard/Birkdale Drive-Retreat Way intersection, Pleasant Grove Boulevard/Country Club Drive intersection, Pleasant Grove Boulevard/Laporte Drive-Hemingway Drive intersection, Pleasant Grove Boulevard/Misty Wood Drive intersection, and Pleasant Grove Boulevard/Foothills Boulevard intersection) are identified individually. To isolate the effects of the Project without any induced travel demand, the proposed Project turning traffic volumes used in this analysis are representative of the existing volumes applied to the proposed Project geometry. The difference between emissions generated under existing conditions and those generated under the Project are identified in *Table 4.3-2* and compared to the regional operational significance thresholds promulgated by the PCAPCD.

Table 4.3-2. Operational Criteria Air Pollutant Emissions for AM & PM Peak Periods (Maximum Pounds per Day)

Location	Trip Volume	Delay per Vehicle (Seconds)	ROG	NO_X	PM_{10}
Existing Conditions (2022)					
Pleasant Grove Boulevard/Woodcreek Oaks Boulevard Intersection	8,306	AM Peak: 43 PM Peak: 35	0.012	0.192	0.000
Pleasant Grove Boulevard/Birkdale Drive-Retreat Way Intersection	5,516	AM Peak: 2 PM Peak: 2	0.000	0.006	0.000
Pleasant Grove Boulevard/Country Club Drive Intersection	6,036	AM Peak: 10 PM Peak: 20	0.001	0.018	0.000
Pleasant Grove Boulevard/Laporte Drive-Hemingway Drive Intersection	6,025	AM Peak: 2 PM Peak: 10	0.001	0.022	0.000
Pleasant Grove Boulevard/Misty Wood Drive Intersection	6,166	AM Peak: 1 PM Peak: 4	0.000	0.009	0.000
Pleasant Grove Boulevard/Foothills Boulevard Intersection	11,075	AM Peak: 44 PM Peak: 58	0.022	0.341	0.000
Existing Conditions Total:			0.038	0.591	0.000
Proposed Project Conditions					
Pleasant Grove Boulevard/Woodcreek Oaks Boulevard Intersection	8,346	AM Peak: 37 PM Peak: 32	0.011	0.171	0.000
Pleasant Grove Boulevard/Birkdale Drive-Retreat Way Intersection	5,556	AM Peak: 0 PM Peak: 0	0.000	0.000	0.000
Pleasant Grove Boulevard/Country Club Drive Intersection	6,100	AM Peak: 8 PM Peak: 9	0.002	0.031	0.000
Pleasant Grove Boulevard/Laporte Drive-Hemingway Drive Intersection	6,117	AM Peak: 1 PM Peak: 1	0.000	0.003	0.000

Table 4.3-2. Operational Criteria Air Pollutant Emissions for AM & PM Peak Periods (Maximum Pounds per Day)					
Location	**Trip Volume**	**Delay per Vehicle (Seconds)**	**ROG**	**NO_X**	**PM_{10}**
Pleasant Grove Boulevard/Misty Wood Drive Intersection	6,212	AM Peak: 1 PM Peak: 1	0.000	0.003	0.000
Pleasant Grove Boulevard/Foothills Boulevard Intersection	11,265	AM Peak: 43 PM Peak: 48	0.020	0.308	0.000
Proposed Project Conditions Total:			0.033	0.517	0.000

Source: EMFAC2021. Refer to Appendix B-2 for Model Data Outputs.

As shown in *Table 4.3-2*, under the proposed Project, the segment of Pleasant Grove Boulevard beginning 1,500 feet east of Foothills Boulevard to 700 feet west of Woodcreek Oaks Boulevard and associated Project intersections would generate 0.033 pounds of Reactive Organic Gas (ROG), 0.517 pounds of NO_x, and 0.000 pounds of PM_{10} from idling automobiles during the combined AM and PM peak hours. This is a reduction of 0.005 pounds of ROG and 0.074 pounds of NO_x daily compared with existing conditions. Thus, the Project would result in a decrease of daily emissions compared with existing conditions. Project emissions would not exceed any PCAPCD thresholds for any criteria air pollutants during operation.

In order to present a more concise comparison of idling emissions during existing conditions and proposed Project post-construction operations, *Table 4.3-3* omits emissions generated at each individual Project intersection.

Table 4.3-3. Operational-Related Emissions Summary			
Activity	**Pollutant (maximum pounds per day)**		
	ROG	**NO_X**	**PM_{10}**
Existing Conditions (2022)			
Idling Emissions under Existing Conditions	0.038	0.591	0.000
Proposed Project Conditions			
Idling Emissions Under Proposed Project	0.033	0.517	0.000
PCAPCD Potentially Significant Impact Threshold	55	55	82
Exceed PCAPCD Threshold?	No	No	No

Source: EMFAC2021. Refer to Appendix B-2 for Model Data Outputs.

As shown in *Table 4.3-3*, the proposed Project would result in less emissions than existing conditions.

For the reasons listed above, the Project would result in **no new impact**.

Except as provided in Public Resources Code Section 21099, would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒

No New Impact

The GPU EIR concludes that during construction and operation project's consistent with the General Plan, localized air pollutant emissions would be generated that could affect existing and proposed sensitive receptors. Construction activities would generate diesel particulate matter (DPM) emissions that could affect existing and proposed sensitive receptors. The GPU EIR finds that existing regulations and policies would reduce potential exposure to substantial pollutant concentrations during construction, however operational impacts were found to be potentially significant and unavoidable.

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over age 65, children under age 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest existing sensitive receptors to the Project are residences positioned adjacent to the northern and southern boundaries of the Project Limits. These residences are generally separated from Pleasant Grove Boulevard by a six-foot masonry wall and 30-foot-wide vegetated buffer with sidewalks.

Construction-related activities associated with the Project would result in temporary, short-term emissions of DPM, ROG, NOx, CO, PM_{10} and $PM_{2.5}$ from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing); soil and asphalt hauling truck traffic; paving; and other miscellaneous activities. The portion of the SVAB which encompasses the Project area is designated as a nonattainment area for federal O_3 and standards and is also a nonattainment area for the state standards for O_3 and PM_{10} standards (CARB 2019). Thus, existing O_3 and PM_{10} levels in the SVAB are at unhealthy levels during certain periods. However, as shown in *Table 4.3-1*, Project construction activities would not exceed the PCAPCD significance thresholds for emissions.

The health effects associated with O_3 are generally associated with reduced lung function. Because the Project would not involve construction activities that would result in O_3 precursor emissions (ROG or NOx) in excess of the PCAPCD thresholds, the Project is not anticipated to substantially contribute to regional O_3 concentrations and the associated health impacts during construction.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The Project would not involve construction activities that would result

in CO emissions in excess of the PCAPCD thresholds. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter (PM_{10} and $PM_{2.5}$) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary Toxic Air Contaminant of concern. PM_{10} exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM. As with O_3 and NOx, the Project would not generate emissions of PM_{10} that would exceed the PCAPCD's thresholds. Accordingly, the Project's DPM emissions are not expected to cause any increase in related regional health effects for these pollutants.

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or *hot spots*, are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly more stringent in the last 20 years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the Placer County portion of the SVAB is designated as in attainment. Detailed modeling of Project-specific CO *hot spots* is not necessary and thus this potential impact is addressed qualitatively.

A CO *hot spot* would occur if an exceedance of the state one-hour standard of 20 Parts Per Million (ppm) or the eight-hour standard of 9 ppm were to occur. The analysis prepared for CO attainment in the South Coast Air Quality Management District's (SCAQMD) *1992 Federal Attainment Plan for Carbon Monoxide* in Los Angeles County and a Modeling and Attainment Demonstration prepared by the SCAQMD as part of the 2003 Air Quality Management Plan can be used to demonstrate the potential for CO exceedances of these standards. The SCAQMD conducted a CO *hot spot* analysis as part of the 1992 CO Federal Attainment Plan at four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. Despite this level of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992). In order to establish a more accurate record of baseline CO

concentrations affecting the South Coast Air Basin, a CO *hot spot* analysis was conducted in 2003 at the same four busy intersections in Los Angeles at the peak morning and afternoon time periods. This *hot spot* analysis did not predict any violation of CO standards. The highest one-hour concentration was measured at 4.6 ppm at Wilshire Boulevard and Veteran Avenue and the highest eight-hour concentration was measured at 8.4 ppm at Long Beach Boulevard and Imperial Highway.

According to the Traffic Study prepared for the Project (Fear & Peers 2022), the Project Limits would not accommodate more than 100,000 vehicles daily. Furthermore, the Project would result in a decrease of daily emissions and reduction of automobile idling compared with existing conditions. Thus, there is no likelihood of the Project traffic exceeding CO values.

As discussed above, construction and operation of the proposed Project would not result in the development of any substantial sources of air toxics. There are no stationary sources associated with the operations of the Project and as previously described, the Project would result in a decrease of daily emissions compared with existing conditions. Therefore, the Project would result in beneficial changes in terms of the generation of air pollutant concentrations and there would be **no new impact** in terms of exposure of sensitive receptors to substantial construction or operational pollutant concentrations.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

No New Impact

The GPU EIR finds that Plan Area buildout is subject to policies that would avoid exposure of a substantial number of people to objectionable odors and that related impacts are less than significant.

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory, and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word *strong* to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

During construction, the proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors would not adversely affect a substantial number of people to odor emissions.

According to the CARB Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005), the sources of the most common operational odor complaints received by local air districts include facilities such as sewage treatment plants, landfills, recycling facilities, petroleum refineries, and livestock operations. The Project does not contain any of the land uses identified as typically associated with emissions of objectionable odors. Thus, **no new impact** would occur.

4.3.3 Mitigation Measures

No new impacts were identified, and no mitigation measures are required.

4.4 Biological Resources

This section is based on the analysis and recommendations presented in the Biological Resources Assessment (BRA) prepared for the proposed Project (ECORP 2022b, Appendix C).

4.4.1 Methods

The BRA assess the potential for occurrence of special-status plant and animal species or their habitat, and sensitive habitats such as wetlands within the Study Area. The assessment does not include determinate field surveys conducted according to agency-promulgated protocols. Rather, conclusions and recommendations are based on review of the existing literature and results of the current site reconnaissance survey and do not include determinate field surveys for special-status plant and wildlife species.

For the purposes of this assessment, special-status species are defined as plants or animals that:

- are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal Endangered Species Act (ESA);
- are listed or candidates for future listing as threatened or endangered under the California ESA;

- meet the definitions of endangered or rare under Section 15380 of the CEQA Guidelines;
- are identified as a species of special concern by the California Department of Fish and Wildlife (CDFW);
- are birds identified as Birds of Conservation Concern (BCC) by the U.S. Fish and Wildlife Service (USFWS 2021);
- are plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (California Rare Plant Ranks [CRPR] 1 and 2);
- plants listed by CNPS as species about which more information is needed to determine their status (CRPR 3), and plants of limited distribution (CRPR 4);
- are plants listed as rare under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.); or
- are fully protected in California in accordance with the California Fish and Game Code, Sections 3511 (birds), 4700 (mammals), 5050 (amphibians and reptiles), and 5515 (fishes).

Only species that fall into one of the above groups were considered. Other species sometimes found in database searches or within the literature were not included in this analysis.

4.4.1.1 Literature Review

The following resources were queried to determine whether any special-status species/habitat have potential to occur within the Study Area (See Appendix C, Attachment A):

- CDFW California Natural Diversity Database (CNDDB) record search for the "Roseville, California" 7.5-minute quadrangles and the eight surrounding U.S. Geological Survey (USGS) quadrangles (CDFW 2022);
- USFWS Information, Planning, and Consultation System Resource Report List for the Study Area (USFWS 2022); and
- CNPS' electronic Inventory of Rare and Endangered Plants of California for the "Roseville, California" 7.5-minute quadrangles and the eight surrounding USGS quadrangles (CNPS 2022).

4.4.1.2 Site Reconnaissance

A field assessment was conducted by ECORP biologists Rachel Bennett and Courtney Owens on June 1, 2022. During this assessment, accessible portions of the Study Area were visually assessed by walking or driving. The following biological resource information was collected:

- Direct observations of special-status species;
- Animal and plant species directly observed;
- Habitat and vegetation communities; and

- Representative photographs of the Study Area (See Appendix C, Attachment B).

4.4.1.3 Special-Status Species Considered for the Project

Based on species occurrence information from the literature review and observations in the field, a list of special-status plant and animal species that have the potential to occur within the Study Area was generated and is located in the results section. Each of these species with potential to occur onsite was assessed based on the following criteria:

- Present - Species was observed during the site visit or is known to occur within the Study Area based on documented occurrences within the CNDDB or other literature
- Potential to Occur - Habitat (including soils and elevation requirements) for the species occurs within the Study Area
- Low Potential to Occur - Marginal or limited amounts of habitat occurs or the species is not known to occur within the vicinity of the Study Area based on CNDDB records and other available documentation
- Absent - No suitable habitat (including soils and elevation requirements) or the species is not known to occur within the vicinity of the Study Area based on CNDDB records and other documentation

4.4.2 Environmental Setting

The biological resource Study Area includes the Pleasant Grove Boulevard right-of-way shown in Figures 2-2 and 2-3 and the staging area shown in Figure 2-4. The Study Area is located on relatively flat terrain with elevations ranging from 120 to 170 feet above Mean Sea Level (MSL) and is surrounded by residential and commercial development. The staging area is located on the eastern edge of the Study Area and is made up of annual grassland. Road widening would primarily occur into the existing center median which includes native oaks and ornamental landscape plantings.

The Woodcreek Oaks Preserve and City Preserve are within the vicinity of the Study Area and occur north and south of Pleasant Grove Boulevard near the intersection of Pleasant Grove Boulevard and Country Club Drive. These areas consist of vernal pool grassland, primarily on the north side of Pleasant Grove Boulevard. The Woodcreek Oak Golf Course sits adjacent to the Preserve and has mature oaks throughout.

4.4.2.1 Vegetation Communities and Land Cover

The Study Area is comprised of one vegetation community, ruderal annual grassland, and one land cover, developed.

Ruderal Annual Grassland

The staging area is comprised of nonnative annual grassland and is surrounded by commercial development. This area is disturbed and includes weedy roadside vegetation such as yellow-star thistle (*Centaurea solstitialis*) and wild oat (*Avena* sp.).

Developed

Developed portions of the Study Area are characterized by existing paved roads and sidewalks. The median of Pleasant Grove Boulevard is landscaped and composed of mostly Valley Oak (*Quercus lobata*) and Interior Live Oak (*Quercus wislizeni*).The understory is a mix of bare ground, shrubs, and some landscaped flowers, varying depending on location.

4.4.2.2 Soils

According to the Web Soil Survey (National Resources Conservation Service [NRCS] 2022), three soil units, or types, have been mapped within the Study Area (*Figure 4.4-1*):

141 – Cometa-Fiddyment complex, 1 to 5 percent slopes

142 – Cometa-Ramos sandy loams, 1 to 5 percent slopes

194 – Xerofluvents, frequently flooded

4.4.2.3 Aquatic Resources

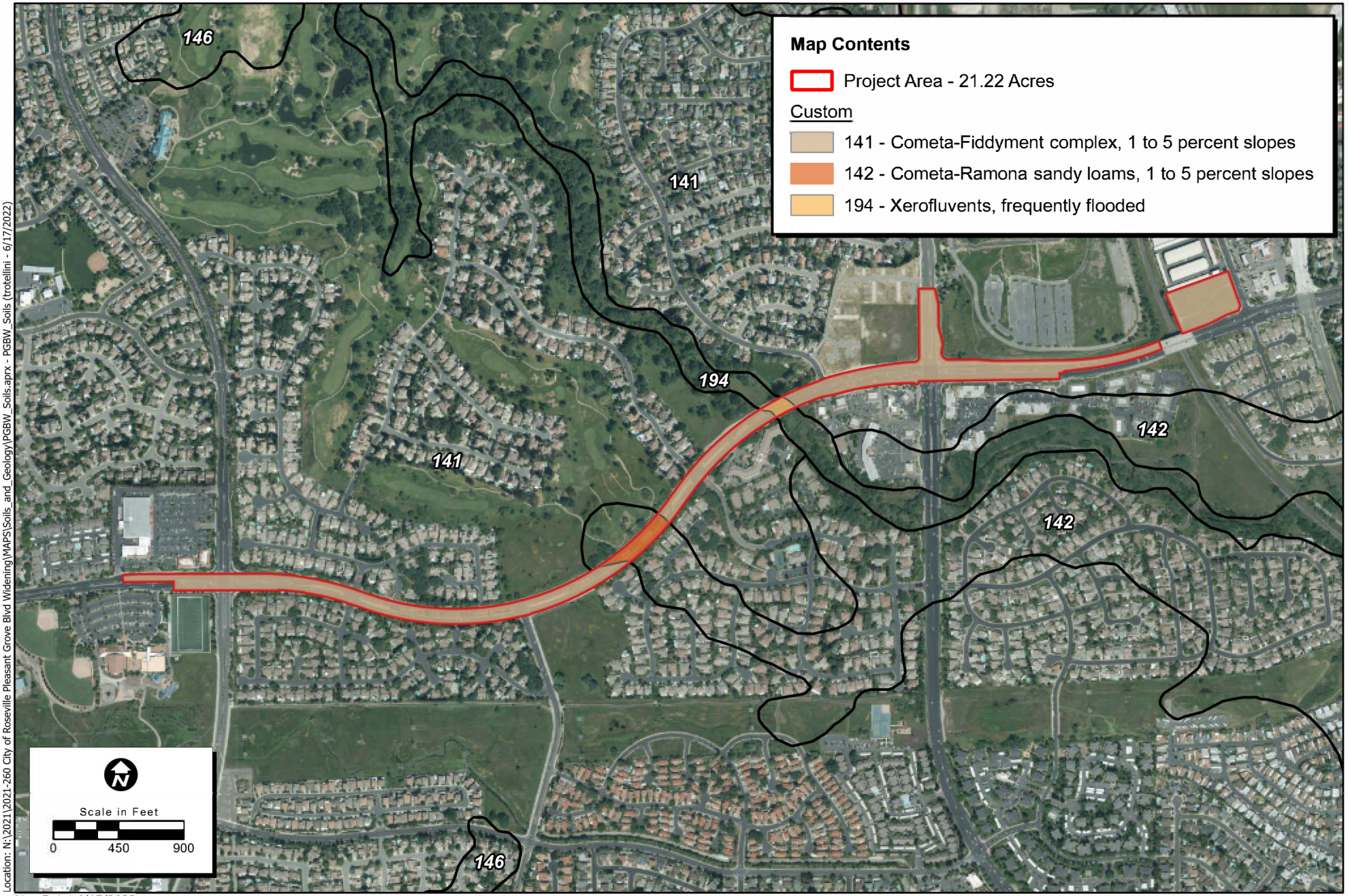
There are no aquatic features within the Study Area.

4.4.3 Evaluation of Species Identified in the Literature Search

BRA Table 1 (Appendix C) lists all the special-status plant and animal species identified in the literature review as having potential to occur within the Study Area. Included in this table is a determination on the potential to occur within the Study Area. Following the table is a brief description and discussion of each special-status species with potential to occur in the Study Area. Results are summarized below.

4.4.3.1 Plants

Fourteen special-status plant species were identified as having the potential to occur within the Study Area based on the literature review. Upon further analysis and site reconnaissance, 11 species were determined to be absent from the Study Area due to the lack of suitable habitat. No further discussion of those species is provided in this assessment. Brief descriptions of the three special-status plants with the potential to occur within the Study Area is presented below.



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 4.4-1. Natural Resources Conservation Service Soil Units

2021-260 City of Roseville Pleasant Grove Boulevard Widening

Valley Brodiaea

Valley brodiaea (*Brodiaea rosea* ssp. *vallicola*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.2 species. This species is a bulbiferous perennial herb that occurs in old alluvial terraces and silty, sandy, or gravelly soils in vernal pools, swales, and valley and foothill grassland. Valley brodiaea blooms from April through May (sometimes June) and is known to occur at elevations ranging from 35 to 1,100 feet above MSL. Valley brodiaea is endemic to California; the current range of this species includes Butte, Calaveras, Nevada, Placer, Sacramento, San Joaquin, Sutter, and Yuba counties (CNPS 2022).

There are no documented CNDDB occurrence of valley brodiaea within 5 miles of the Study Area (CDFW 2022). The grassland within the staging area provides marginally suitable habitat for this species. Valley brodiaea has low potential to occur within the Study Area.

Stinkbells

Stinkbells (*Fritillaria agrestis*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.2 species. This species is a perennial bulbiferous herb that occurs in clay, sometimes serpentinite areas in chaparral, cismontane woodland, pinyon and juniper woodland, and valley and foothill grassland. Stinkbells bloom from March through June and is known to occur at elevations ranging from 35 to 5,100 feet above MSL. This species is endemic to California; its current range includes Alameda, Colusa, Contra Costa, Fresno, Kern, Kings, Mendocino, Merced, Monterey, Mariposa, Placer, Sacramento, Santa Barbara, San Benito, Santa Clara, San Luis Obispo, San Mateo, Stanislaus, Tuolumne, Ventura, and Yuba counties, and is considered to be extirpated from San Mateo County (CNPS 2022).

There is one documented CNDDB occurrences of stinkbells within 5 miles of the Study Area (CDFW 2022). The grassland within the staging area provides marginal habitat for this species. Stinkbells has low potential to occur within the Study Area.

Bristly Leptosiphon

Bristly leptosiphon (*Leptosiphon acicularis*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 4.2 species. This species is an annual herb that occurs in chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland. Bristly leptosiphon blooms from April through July and is known to occur at elevations ranging from 180 to 4,920 feet above MSL. Bristly leptosiphon is endemic to California; the current range of this species includes Alameda, Butte, Colusa, Humboldt, Kern, Lake, Marin, Mendocino, Napa, Placer, San Benito, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, and Yuba counties (CNPS 2022).

There is no documented CNDDB occurrence of bristly leptosiphon within 5 miles of the Study Area (CDFW 2022). The grassland within the staging area provides marginal habitat for this species. Bristly leptosiphon has low potential to occur within the Project Area.

4.4.3.2 Invertebrates

Five special-status invertebrate species were identified as having potential to occur within the Study Area based on the literature review. Upon further analysis and site reconnaissance, all of the species, conservancy fairy shrimp (*Branchinecta conservatio*), vernal pool fairy shrimp (*B. lynchi*), monarch butterfly (*Danaus plexippus*), vernal pool tadpole shrimp (*Lepidurus packardi*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) were determined to be absent due to an absence of suitable habitat. No further discussion of these species is provided in this assessment.

4.4.3.3 Fish

Four special-status fish species were identified as having potential to occur within the Study Area based on the literature review. Upon further analysis and site reconnaissance, all four of these species, Pacific lamprey (*Entosphenus tridentatus*), delta smelt (*Hypomesus transpacificus*), Western River lamprey (*Lampetra ayresii*), and Steelhead (California Central Valley Evolutionarily Significant Unit, *Oncorhynchus mykiss*) were determined to be absent from the Project Area due to the lack of suitable habitat. No further discussion of these species is provided in this assessment.

4.4.3.4 Amphibians

One special-status amphibian species, western spadefoot (*Spea hammondii*)), was identified as having the potential to occur within the Study Area based on the literature review. Upon further analysis and site reconnaissance, western spadefoot was determined to be absent from the Study Area due to the lack of suitable habitat. No further discussion of these species is provided in this assessment.

4.4.3.5 Reptiles

Three special-status reptile species were identified as having potential to occur within the Study Area based on the literature review. Upon further analysis and site reconnaissance, all three species, northwestern pond turtle (*Actinemys marmorata*), Blainville's coast horned lizard (*Phrynosoma blainvillii*), and giant garter snake (*Thamnophis gigas*) were determined to be absent due to an absence of suitable habitat. No further discussion of these species is provided in this assessment.

4.4.3.6 Birds

Thirty-six special-status bird species were identified as having potential to occur within the Study Area based on the literature review. Upon further analysis and after the reconnaissance visit, 30 of these species were considered to be absent from the Study Area due to the lack of suitable wintering, foraging, and/or breeding habitat, or because the Study Area is outside of the current known range of the species. Brief descriptions of the remaining six species with the potential to occur within the Study Area are presented below.

White-tailed kite

White-tailed kite (*Elanus leucurus*) is not listed pursuant to either the California or federal ESAs; however, the species is fully protected pursuant to Section 3511 of the California Fish and Game Code. This species is a common resident in the Central Valley and the entire length of the California coast, and all areas up to the Sierra Nevada foothills and southeastern deserts (Dunk 2020). In northern California, white-tailed kite nesting occurs from March through early August, with nesting activity peaking from March through June. Nesting occurs in trees within riparian, oak woodland, savannah, and agricultural communities that are near foraging areas such as low elevation grasslands, agricultural, meadows, farmlands, savannahs, and emergent wetlands (Dunk 2020).

There is one documented CNDDB occurrence of white-tailed kite within 5 miles of the Study Area (CDFW 2022). Mature trees in and immediately adjacent to the Study Area represent potential nesting habitat. White-tailed kite has potential to nest within the Study Area.

Cooper's hawk

The Cooper's hawk (*Accipiter cooperii*) is not listed pursuant to either the California or federal ESA's, however, it is a CDFW *watch list* species and is currently tracked in the CNDDB. Typical nesting and foraging habitats include riparian woodland, dense oak woodland, and other woodlands near water. Cooper's hawk nest throughout California from Siskiyou County to San Diego County and includes the Central Valley (Rosenfield et al. 2020). Breeding occurs during March through July, with a peak from May through July.

There are no documented CNDDB occurrences of Cooper's hawk within 5 miles of the Study Area (CDFW 2022). Mature trees in and immediately adjacent to the Study Area represent potential nesting habitat. Cooper's hawk has potential to nest within the Study Area.

Swainson's Hawk

The Swainson's hawk (*Buteo swainsoni*) is listed as a threatened species and is protected pursuant to the California ESA. This species nests in North America (Canada, western U.S., and Mexico) and typically winters from South America north to Mexico. However, a small population has been observed wintering in the Sacramento-San Joaquin River Delta (Bechard et al. 2020). In California, the nesting season for Swainson's hawk ranges from mid-March to late August. Swainson's hawks nest within tall trees in a variety of wooded communities including riparian, oak woodland, roadside landscape corridors, urban areas, and agricultural areas, among others. Foraging habitat includes open grassland, savannah, low-cover row crop fields, and livestock pastures. In the Central Valley, Swainson's hawks typically feed on a combination of California vole (*Microtus californicus*), California ground squirrel (*Otospermophilus beecheyi*), ring-necked pheasant (*Phasianus colchicus*), many passerine birds, and grasshoppers (*Melanopulus* species). Swainson's hawks are opportunistic foragers and will readily forage in association with agricultural mowing, harvesting, disking, and irrigating (Estep 1989). The removal of vegetative cover by such farming activities results in more readily available prey items for this species.

There are five documented CNDDB occurrence of Swainson's hawk within 5 miles of the Study Area (CDFW 2022). There is no suitable nesting or foraging habitat in the Study Area, but marginal nesting habitat is present in adjacent trees on the golf course and in the adjacent open space preserves. Swainson's hawk has potential to nest within the vicinity of the Study Area.

Nuttall's Woodpecker

The Nuttall's woodpecker (*Dryobates nuttallii*) is not listed and protected under either state or federal ESAs but is considered a USFWS BCC. They are resident from Siskiyou County south to Baja California. Nuttall's woodpeckers nest in tree cavities primarily within oak woodlands, but also can be found in riparian woodlands (Lowther et al. 2020). Breeding occurs during April through July.

There are no documented CNDDB occurrence of Nuttall's Woodpecker within 5 miles of the Study Area (CDFW 2022). Mature oak trees in the Pleasant Grove Boulevard median represent potential nesting habitat. Nuttall's woodpecker has potential to nest within the Study Area.

Yellow-billed Magpie

The yellow-billed magpie (*Pica nuttallii*) is not listed pursuant to either the California or federal ESAs but is considered a USFWS BCC. This endemic species is a yearlong resident of the Central Valley and Coast Ranges from San Francisco Bay to Santa Barbara County. Yellow-billed magpies build large, bulky nests in trees in a variety of open woodland habitats, typically near grassland, pastures or cropland. Nest building begins in late-January to mid-February, which may take up to 6 to 8 weeks to complete, with eggs laid during April-May, and fledging during May-June (Koenig and Reynolds 2020). The young leave the nest at about 30 days after hatching (Koenig and Reynolds 2020). Yellow-billed magpies are highly susceptible to West Nile Virus, which may have been the cause of death to thousands of magpies during 2004-2006 (Koenig and Reynolds 2020).

There are no documented CNDDB occurrences of yellow-billed magpie within 5 miles of the Study Area (CDFW 2022). Mature trees within the Pleasant Grove Boulevard median represent potential nesting habitat. Yellow-billed magpie has potential to nest within the Study Area.

Oak Titmouse

Oak titmouse (*Baeolophus inornatus*) are not listed and protected under either state or federal ESAs but are considered a USFWS BCC. Oak titmouse breeding range includes southwestern Oregon south through California's Coast, Transverse and Peninsular ranges, western foothills of the Sierra Nevada, into Baja California; they are absent from the humid northwestern coastal region and the San Joaquin Valley (Cicero et al. 2020). They are found in dry oak or oak-pine woodlands but may also use scrub oaks or other brush near woodlands (Cicero et al. 2020). Nesting occurs during March through July.

There are no documented CNDDB occurrences of oak titmouse within 5 miles of the Study Area (CDFW 2022). Mature trees in median represent potential nesting habitat. Oak titmouse has potential to nest within the Study Area.

4.4.3.7 Mammals

Four special-status mammal species were identified as having potential to occur within the Study Area based on the literature review. Upon further analysis and after the reconnaissance visit, two of those species, American badger (*Taxidea taxus*) and western red bat *(Lasiurus blossevillii)*, were considered to be absent due to the lack of suitable habitat. A brief description of the remaining species with the potential to occur within the Study Area is presented below.

Townsend's Big Ear Bat

Townsend's big-eared bats (*Corynorhinus townsendii*) are not listed pursuant to either the California or federal ESAs; however, it is designated as a Species of Special Concern (SSC) by the CDFW and a sensitive species by the United States Department of Agriculture Forest Service. This species is found in all alpine and subalpine habitats throughout California, and may be found any season throughout its range (Zeiner et al. 1990). Roosting habitat includes caves, tunnels, mines, buildings, bridges and other manufactured structures (Zeiner et al. 1990). Maternity roosts are found in caves, tunnels, mines, and buildings in small groups (usually fewer than 100 individuals) of females and young (Zeiner et al. 1990). Maternity colonies are in warmer parts of caves with males apparently solitary during the maternity period (Harvey et al. 2011). Townsend's big-eared bat will return each year to roosting sites (Harvey et al. 2011). Mating occurs during autumn and continues into winter with one offspring born in June (Harvey et al. 2011).

There are no documented CNDDB occurrences Townsend's big ear bat within 5 miles of the Study Area (CDFW 2022). Crevices in existing bridge overpass adjacent to the Study Area provide marginal suitable roosting habitat. Townsend's big ear bat has low potential to occur within the Study Area.

Pallid Bat

Pallid bats (*Antrozous pallidus*) are not listed pursuant to either the California or federal ESAs; however, it is designated as an SSC by the CDFW and a sensitive species by the United States Department of Agriculture Forest Service. Their range extends from British Columbia to central Mexico (Harvey et al. 2011). Pallid bat has a strong association with arid regions with rocky outcrops near water (Harvey et al. 2011). Roosting usually occurs in rock crevices and buildings, but is also found in tree cavities, caves, mines, and piles of rocks (Harvey et al. 2011). Pallid bat roosts in small colonies of 20 or more individuals (Harvey et al. 2011). This species will give birth to one to two offspring in May or June (Harvey et al. 2011).

There are no documented CNDDB occurrences of pallid bat within 5 miles of the Study Area (CDFW 2022). Crevices in existing bridge overpass adjacent to the Study Area provide marginal suitable roosting habitat. Pallid bat has low potential to occur within the Study Area.

4.4.4 Sensitive Natural Communities

Six sensitive natural communities were identified as having the potential to occur within the Study Area based on the literature review: Alkali Meadow, Alkali Seep, Northern Claypan Vernal Pool, Northern Hardpan Vernal Pool, Northern Volcanic Mud Flow Vernal Pool, and Valley Needlegrass Grassland (CDFW

2022) (See Appendix C, Attachment A). None of these communities were found to occur during the site assessment.

4.4.5 Wildlife Movement/Corridors and Nursery Sites

The Study Area is located among developed residential and commercial landscapes. The majority of the Study Area is within an existing road that is heavily trafficked on a daily basis. These areas are not expected to support significant wildlife movement corridors.

For the purpose of this analysis, nursery sites include but are not limited to concentrations of nest or den sites such as heron rookeries or bat maternity roosts. This data is available through CDFW's Biogeographic Information and Observation System database or as occurrence records in the CNDDB and is supplemented with the results of the field reconnaissance. No nursery sites have been documented within the Study Area (CDFW 2022) and none were observed during the site reconnaissance.

4.4.6 Critical Habitat

The Study Area is not designated Critical Habitat for any federally listed species (USFWS Information for Planning and Conservation 2022).

4.4.7 Protected Trees

There are several oak trees within the median portion of the Study Area that are protected by the City of Roseville Tree Preservation Ordinance. An Arborist survey (Level 2 – Basic Visual Assessment) has been completed for the Project (see IS/MND Appendix A). In total, 64 trees were inventoried during the survey and a total of 46 trees were found to be protected trees as defined by the City's Tree Preservation Ordinance. The City of Roseville defines a *Protected Tree* as any native oak tree equal to or greater than 6 inches in diameter DBH, measured as a total of a single trunk or multiple trunks. Based on the Arborist assessment, a total of 45 trees are located within the existing center median (and one tree is located north of Pleasant Grove Boulevard approximately 880 feet east of the Foothills Boulevard) and are recommended for removal. Of these, 37 are *protected* native oak trees with a combined DBH of 446 inches.

4.4.8 Biological Resources (IV) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐

Less than Significant Impact with Additional Mitigation

According to the GPU EIR, full buildout of the General Plan would involve conversion of habitat that may be suitable for special-status plant and wildlife species to developed use. In addition to direct removal of special-status plant and wildlife habitat, development would result in habitat modification that could degrade habitat quality to a degree that it is no longer suitable for special-status plants to regenerate or for special status wildlife to reproduce, and these plant and wildlife populations could eventually die out. Also, development would include construction activities that could result in direct take of individual special-status wildlife species. The GPU EIR finds the impact to special status plant and wildlife species is addressed by adopted General Plan Goals and Policies, combined with current laws and regulations, and GPU EIR mitigation measures 4.8-1 (Implement Measures for Special-Status Plants and Habitat) and 4.8-2 (Implementation Measure for Special-Status Wildlife). These measures would be implemented when a potentially significant impact to special status plant and/or wildlife species is identified. With implementation of the above, impacts to special status plant and wildlife species were found to be less than significant.

The Project would result in temporary and permanent disturbance to upland areas and trees within the Pleasant Grove Boulevard median, within the additional right-of-way area required at the northeast corner of the Foothills Boulevard intersection, and within the temporary staging area. These impacts are addressed below.

4.4.8.1 Special Status Plants

With regard to special status plants, while there is marginal habitat for three CRPR 4 species (i.e., valley brodiaea, stinkbells, and bristly leptosiphon) within the designated staging area; these species have low potential to occur. Minor temporary impacts associated with equipment staging and vehicle assess are anticipated in the staging area. The Project is not anticipated to have significant adverse effects to special-status plants given the small amount of marginal habitat present, the low likelihood for these species to occur, and the minor temporary impacts of construction staging. Thus, impacts to special status plants are less than significant and **no new impact** would occur.

4.4.8.2 Special Status Wildlife – Birds and Bats

With regard to special status wildlife, construction activities, including tree trimming and removal, have the potential to impact nesting birds (including raptors) if present within or adjacent to construction activities. This is considered a potentially significant impact. With implementation of Mitigation Measure **BIO-1**, which is a "project level" refinement of GPU EIR Mitigation Measure 4.8-2, the Project would result in **a less than significant impact with additional mitigation**.

With regard to special status wildlife, construction activities adjacent to the Pleasant Grove Boulevard bridge/culvert undercrossing located west of Misty Wood Drive could also result in impacts to roosting bats if present. This is also considered a potentially significant impact. With implementation of Mitigation Measure **BIO-2**, which also represents a "project level" refinement of GPU EIR Mitigation Measure 4.8-2, the Project would result in **a less than significant impact with additional mitigation**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, General Plan buildout would involve conversion of riparian habitat and other sensitive natural communities to developed use. In addition to direct removal of habitat, General Plan buildout would result in habitat modification that could degrade habitat quality to a degree that it is no longer suitable for riparian plants or other sensitive natural communities to regenerate, and these habitats and communities could eventually die out. This was considered a potentially significant impact. The GPU EIR finds that, with Implementation of adopted General Plan Goals and Policies, combined with current laws, regulations, and policies, the impact on riparian habitat and other sensitive natural communities would be reduced to less than significant.

The Project Study Area does not support any riparian habitat or sensitive natural communities. Thus, the Project would not have an adverse effect on riparian habitat or sensitive natural communities and there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
c) 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?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, buildout of the General Plan would involve conversion of wetlands and other waters to developed use. In addition to direct removal of wetlands and other waters, buildout of the General Plan would result in wetlands modification that could degrade habitat quality. These impacts were found to be potentially significant. Because much of the sensitive habitat in the Planning Area is already designated for preservation as open space, implementation of all General Plan adopted goals and policies, combined with current laws, regulations, and GPU EIR Mitigation Measures 4.8-1, 4.8-2, 4.8-3, and 4.8-4, impacts to wetlands and other waters would be reduced to less-than-significant.

The Project Study Area does not support any aquatic resources. Thus, the Project would not have an adverse effect on state or federally protected wetlands and there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, General Plan buildout Plan would involve conversion of habitat to developed use that could provide wildlife movement corridors and nursery sites. In addition to direct removal of habitat, buildout of the General Plan would result in habitat modification that could degrade habitat quality to a degree that it is no longer suitable for use as wildlife movement corridors and/or nursery sites. This impact was found to be potentially significant. With implementation of all adopted goals and policies in the existing General Plan, combined with current laws, regulations, and Mitigation Measures 4.8-1, 4.8-2, 4.8-3, and 4.8-4, impacts to wildlife corridors and nursery sites would be reduced to a less-than-significant because these provisions would require projects to identify, avoid, and preserve habitats that function as wildlife migration corridors, including riparian areas and wetlands, or provide compensation for loss of habitat in coordination with state and federal agencies. In addition, proposed GPU policies that require protection of special-status species and their habitats also protect riparian areas, wetlands, and drainages that can be used as wildlife corridors. Finally, implementation of GPU EIR Mitigation Measure 4.8-2 will ensure protection of nesting colonies of purple martin, a CDFW special-status species.

The Project Study Area is located among developed residential and commercial landscapes and an existing road. These uses do not support significant wildlife movement corridors and therefore, the Project would not interfere with wildlife movement. Furthermore, no nursery sites have been documented within the Study Area (CDFW 2022) and none were observed during the site reconnaissance. Thus, Project impacts to migratory wildlife corridors, and/or the use of native wildlife nursery sites is less than significant and there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, General Plan buildout would involve conversion of habitat to developed use that will require oak tree removal, which would be subject to the City's ordinances and policies regarding oak tree preservation and mitigation. The City of Roseville Tree Preservation Ordinance requires a permit

and mitigation for removal of oak trees greater than 6 inches in diameter DBH. Therefore, this impact is considered less than significant by the GPU EIR.

As discussed above, the City's Native Oak Tree Ordinance (*Roseville Municipal Code Chapter 19.66 Tree Preservation)* regulates removal of native oaks and construction activities that occur within a native oak's protected zone (defined as the drip line plus 1 foot). The Project is required to comply with Ordinance requirements, and an Arborist Report has been prepared for the Project. According to the Arborist Report, a total of 45 trees are recommended for removal due to proposed road widening improvements, 37 of which are protected trees with a total DBH removal of 446". For the location of trees currently identified for removal, refer to Arborist Report Appendix B: Tree Disposition Map (See IS/MND Appendix A).

According to City Ordinance, trees must be replaced at a ratio of one inch DBH of tree replaced for each one inch DBH of tree removed (1:1 ratio). This may be achieved with on-site or off-site replacement, or payment of in lieu fees. The replacement trees shall have a combined diameter equivalent not less than the total diameter of the tree(s) removed. As indicated in the Project Description, the Project will comply with all applicable Ordinance requirements. Thus, Project impacts would be reduced to less than significant and there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
f) 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 New Impact

According to the GPU EIR, there is no adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or State HCP that applies to the Planning Area. This impact was found to be less than significant.

As stated above, the City and Project Study Area are not currently covered by any local, regional, or state conservation plan. While the Study Area is within the vicinity of the Placer County Conservation Program (PCCP), the City of Roseville is not a participating entity in the PCCP and the Study Area is excluded from the PCCP development area (PCCP 2020). Therefore, the Project would not conflict with a local, regional, or state conservation plan and there would be **no new impact**.

4.4.9 Mitigation Measures

BIO-1: Construct the Project during the Nonbreeding Season or Conduct Pre-Construction Surveys for Nesting Migratory Birds and Raptors

To the extent feasible, the City will remove trees and large shrubs during the nonbreeding season for migratory birds and raptors (generally between September 1 and February 28).

If construction activities (including vegetation removal) cannot be confined to the nonbreeding season, the City will retain a qualified wildlife biologist with knowledge of the relevant species to conduct nesting surveys before the start of construction. The migratory bird and raptor nesting surveys will include a minimum of two separate surveys to look for active migratory bird and raptor nests. Surveys will include a search of all vegetation that provides suitable nesting habitat in the construction area. In addition, a 500-foot area in open space area areas the construction zone will be surveyed for raptors. For survey areas outside the project site, the biologist will walk areas where property access is authorized. For portions of the survey area without property access, the biologist will scan vegetation using binoculars from the project site or from the public road. One survey should be conducted no more than 14 days prior to construction and the second survey should be conducted within 48 hours of the start of construction or vegetation removal. If no active nests are detected during these surveys, no protective measures are required.

If an active nest is found in the survey area, a no-disturbance buffer will be established around the nest site to avoid disturbance or destruction of the nest until the end of the breeding season (August 31) or after a qualified wildlife biologist determines that the young have fledged and moved out of the nesting substrate (this date varies by species). The extent of these buffers will be determined by the biologist and will depend on the level of construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species but will be established a minimum of 50 feet from active construction for passerine species and up to 500 feet for non-listed raptor species. A minimum buffer of 1,000 feet will be established for an active Swainson's hawk nest. If site-specific conditions or the nature of the activity (e.g., steep topography, dense vegetation, or minimal construction activities) indicate that a smaller buffer could be used, the City will coordinate with CDFW to determine the appropriate buffer size.

BIO-2: Conduct Preconstruction Surveys for Roosting Bats and Implement Protection Measures

To obtain the highest likelihood of detection, the following preconstruction bat surveys will be conducted within and adjacent to the construction area for each construction season. If the surveys determine that bats are roosting in the construction area, the City will implement the protective measures described below.

Conduct Preconstruction Tree Surveys

Prior to tree removal or pruning, qualified biologists will examine trees to be removed or pruned for suitable bat roosting habitat. High-value habitat features (e.g., large tree cavities, basal hollows, loose or peeling bark, and larger snags,) will be identified, and the area around these features will be searched for bats and bat sign (e.g., guano, culled insect parts, and staining). All mature broadleaf trees should be considered potential habitat for solitary foliage-roosting bat species.

If bat sign is detected, biologists will conduct evening visual emergence survey of the source habitat feature, from a half hour before sunset to 1–2 hours after sunset for a minimum of 2 nights during the season that construction would be taking place. Night-vision goggles and/or full-spectrum acoustic detectors will be used during emergence surveys to assist in species identification. All emergence surveys will be conducted during favorable weather conditions (calm nights with temperatures conducive to bat activity and no precipitation predicted). Survey methodology may be supplemented as new research identifies advanced survey techniques and equipment that would aid in bat detections.

Identify Protective Measures for Bats Using Trees

If it is determined that bats are using trees within or adjacent to the construction area as roost sites, the City (or its designated contractor) will coordinate with CDFW to identify protective measures to avoid and minimize impacts on roosting bats based on the type of roost and timing of activities. These measures could include the following measures.

- If feasible, tree removal and pruning of trees containing an active roost will be avoided between April 1 and September 15 (the maternity period) to avoid impacts on reproductively active females and dependent young.
- If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until September 15 or until a qualified biologist has determined that the roost is no longer active.
- If avoidance of nonmaternity roost trees is not possible, tree removal or pruning will be monitored by a qualified biologist. Prior to removal or pruning, the tree will be gently shaken, and several minutes should pass before felling trees or pruning limbs to allow bats time to arouse and leave the tree. The tree then will be removed in pieces, rather than felling the entire tree. The biologists will search downed vegetation for dead and injured bats. The presence of dead or injured bats that are species of special concern will be reported to CDFW.

Conduct Preconstruction Surveys of Culverts

Prior to any work to replace, extend, or remove culverts, a qualified biologist will inspect box and pipe culverts for the presence of roosting bats. The biologist will conduct a daytime inspection/survey of box culverts for bat sign or occupancy to determine whether the structure is being used as a roost. The biologist conducting daytime surveys will listen for audible bat calls and will use the naked eye, binoculars, telescoping inspection mirror, and a high-powered spotlight to inspect culverts, and mud nests if present, for bats.

Surfaces and the ground around the culvert will be surveyed for bat sign, such as guano, staining, and prey remains. Pipe culverts will be inspected from the exterior using the methods listed. If no suitable features are found, and no bats or bat sign are present, then a preconstruction survey within 24 hours prior to construction will be conducted. If suitable features are found, and bats or bat sign are present, additional surveys may be conducted to

determine how the culvert is used by bats (i.e., whether it is used as a night roost, maternity roost, migration stopover, or for hibernation).

Implement Protective Measures for Bats Using Culverts

To avoid disturbance, injury, or mortality of bats utilizing culverts for roosting, the City (or its contractor) will conduct all work on these structures during the day (to the extent possible and where appropriate). If this is not possible, portable lights will be used to illuminate the roosting areas prior to and after sunset to deter bats from roosting during nights when work will occur.

4.5 Cultural Resources

ECORP Consulting, Inc. prepared the *Confidential Cultural Resources Inventory and Report* (ECORP 2022c, Appendix D) for the proposed Project to determine if cultural resources were present in or adjacent to the Project Area and assess the sensitivity of the Project Area for undiscovered or buried cultural resources.

The information provided below is an abridged version of the Cultural Resources Inventory Report and is included here to provide a brief context of the potential cultural resources in the Project Area. Due to the sensitive nature of cultural resources and their records, which are restricted from public distribution by state and federal law, the IS/MND appendices do not include the cultural resources report; however, all pertinent information necessary for impact determinations is included in this section. A redacted version of the cultural resources report that does not include site records or locations may be requested by contacting the City of Roseville.

4.5.1 Methods

4.5.1.1 Personnel Qualifications

Registered Professional Archaeologist (RPA) Brian S. Marks, Ph.D. who meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historical archaeology, was responsible for the cultural resource investigation. Staff Archaeologist Laurel Zickler-Martin, RPA conducted the fieldwork. Staff Archaeologists Megan Webb and Laurel Zickler-Martin prepared the technical report. Lisa Westwood, RPA provided technical report review and quality assurance.

Dr. Marks was the Principal Investigator and has been an archaeologist since 1997. He has been working in cultural resources management in California since 2010 following eight years of archaeological work in the southeast U.S. Dr. Marks holds a Ph.D. and an M.S. in Anthropology.

Laurel Zickler-Martin, RPA is a Staff Archaeologist at ECORP with more than 10 years of experience in cultural resources management in California and the Great Basin, as well as project experience in Washington and Oregon.

Megan Webb is a Staff Archaeologist for ECORP with 8 years of experience in cultural resources management, primarily in California. She holds a B.A. in Anthropology and has participated in all aspects

of archaeological fieldwork, including survey, test excavation, and data recovery, in addition to months of archaeological lab experience.

Lisa Westwood, RPA has 26 years of experience and meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historical archaeology. She holds a B.A. in Anthropology and an M.A. in Anthropology (Archaeology). She is the Director of Cultural Resources for ECORP.

4.5.1.2 Records Search Methods

ECORP requested a records search for the Project area at the North Central Information Center (NCIC) of the California Historic Resources Information System Center (CHRIS) at California State University-Sacramento on June 1, 2022 (NCIC search #PLA-22-59; Appendix 1). The purpose of the records search was to determine the extent of previous surveys within 100 feet of the Project Area surrounding Pleasant Grove Boulevard and a 0.25-mile buffer around proposed staging area, and whether previously documented pre-contact or historic archaeological sites, architectural resources, or traditional cultural properties exist within this area. This narrow records search radius approach was chosen due the Project limits being confined to the right-of-way of Pleasant Grove Boulevard and the fact that the surrounding development around the roadway is modern in age, and those developments would have been subject to environmental review and permitting supported by cultural resources technical studies. Therefore, the expectation is that real data on the presence or absence of cultural resources adjacent to the Project area is available, and that a larger radius to capture data from more distant studies in order to predict sensitivity of the current project area is not necessary. NCIC staff completed and returned the records search to ECORP on June 1, 2022.

In addition to the official records and maps for archaeological sites and surveys in Placer County, the following historic references were also reviewed: Built Environment Resource Directory (BERD; Office of Historic Preservation [OHP] 2020); Historic Property Data File for Placer County (OHP 2012); The National Register Information System (National Park Service [NPS] 2022); Office of Historic Preservation, California Historical Landmarks (CHL; OHP 2022); CHL (OHP 1996 and updates); California Points of Historical Interest (OHP 1992 and updates); Directory of Properties in the Historical Resources Inventory (1999); California Department of Transportation (Caltrans) Local Bridge Survey (Caltrans 2019); Caltrans State Bridge Survey (Caltrans 2018); and *Historic Spots in California (*Kyle 2002).

Other references examined include a RealQuest Property Search and historic General Land Office (GLO) land patent records (Bureau of Land Management [BLM] 2022). Historic maps reviewed include:

- 1855 BLM GLO Plat map for Township 11 North Range 6 East;
- 1891 USGS Sacramento, California topographic quadrangle map (1:125,000 scale);
- 1910 USGS Roseville, California topographic quadrangle map (1:31,680 scale);
- 1953 USGS Roseville, California topographic quadrangle map (1:24,000 scale);
- 1967 USGS Roseville, California topographic quadrangle map (1:24,000 scale);

- 1967 photo revised 1981 USGS Roseville, California topographic quadrangle map (1:24,000 scale); and
- 1992 USGS Roseville, California topographic quadrangle map (1:24,000 scale).

Historic aerial photos taken in 1947, 1957, 1964, 1966, and more recent aerial photos from 1993 to present were also reviewed for any indications of property usage and built environment.

4.5.1.3 Sacred Lands File Coordination Methods

In addition to the records search, ECORP contacted the California Native American Heritage Commission (NAHC) on June 1, 2022 to request a search of the Sacred Lands File for the Project Area. This search determines whether or not the California Native American tribes within the Project Area have recorded Sacred Lands, because the Sacred Lands File is populated by members of the Native American community with knowledge about the locations of tribal resources. In requesting a search of the Sacred Lands File, ECORP solicited information from the Native American community regarding Tribal Cultural Resources (TCRs), but the responsibility to formally consult with the Native American community lies exclusively with the federal and local agencies under applicable state and federal laws. The lead agencies have not delegated authority to ECORP to conduct tribal consultation.

4.5.1.4 Other Interested Party Consultation Methods

ECORP mailed letters to the Placer County Historical Society and the Roseville Historical Society on June 1, 2022 to solicit comments or obtain historical information that the repository might have regarding events, people, or resources of historical significance in the area .

4.5.1.5 Field Methods

ECORP subjected the Project Area to an intensive pedestrian survey on June 9, 2022 under the guidance of the *Secretary of the Interior's Standards for the Identification of Historic Properties* (NPS 1983) using approximately 15-meter transects, when feasible. The shoulders of the right-of-way of Pleasant Grove Boulevard were surveyed and exposed ground within the medians was inspected during the pedestrian survey. The staging area at the eastern end of the Project Area was surveyed using 15-meter transects. ECORP expended 0.5 person-day in the field. At the time, the ground surface was examined for indications of surface or subsurface cultural resources. The general morphological characteristics of the ground surface were inspected for indications of subsurface deposits that may be manifested on the surface, such as circular depressions or ditches. Whenever possible, ECORP examined the locations of subsurface exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances for artifacts or for indications of buried deposits. No subsurface investigations or artifact collections were undertaken during the pedestrian survey.

4.5.2 Environmental Setting

The Project Area is located in the transition zone between the Central Valley and the Sierra Nevada foothills. It is located along a modern existing roadway and is surrounded by suburban residential and

commercial development. The terrain is relatively flat, and elevations range from 120 to 170 feet above mean sea level. Approximately 1,000 feet west of Foothills Boulevard, the south branch of Pleasant Grove Creek passes beneath the Pleasant Grove Boulevard roadway located within the Project Area. The Project Area is located within a mixed-use area of Roseville, amid commercial and high-density residential land uses.

For a discussion of the Project area's prehistoric, ethnographic, and historic setting, refer to GPU EIR Chapter 4.9 Cultural and Tribal Cultural Resources, Section 4.9.2 Environmental Setting.

4.5.3 Research Results

4.5.3.1 Previous Research

Twelve previous cultural resource investigations have been conducted in or within the records search radius of the property, covering approximately 80 percent of the total area surrounding the property within the records search radius (*Table 4.5-1*). Of the 12 studies, four were conducted within the Project Area and the other eight were within the 0.5-mile radius.

Table 4.5-1. Previous Cultural Studies in the Project Area or within the Records Search Radius

Report Number	Author(s)	Report Title	Year	Includes Portion of the Project Area?
21	Daniel G. Foster	An Archeological Assessment of the Electronic Arrays Project, 73 Acres in Placer County, California	1981	No
274	Maniery, James Gary and Mary L. Maniery	Cultural Resources Inventory and Evaluation of Rich, Shenker, and Carlsberg Parcels, Roseville, Placer County, California	1986	Yes
367	Foster, John W. and Daniel G. Foster	An Archeological Reconnaissance of the Diamond Oaks North Property, Placer County, California	1982	No
368	Foster, Daniel G. and John W. Foster	An Archeological Reconnaissance of the Roseville - Placer County - Rocklin West Sewer Assessment District	1981	Yes
2807	Hatoff, B. and A. Wesson	Roseville Energy Facility Cultural Resources Appendix J of Application for Certification	2001	Yes
3858	Ric Windmiller	Cultural Resources Inventory Of The Pleasant Grove Boulevard Overcrossing Roseville, Placer County, California	1994	No
6052	Peak & Associates, Inc.	Cultural Resource Assessment of The Diamond Plaza Development	2004	No

Table 4.5-1. Previous Cultural Studies in the Project Area or within the Records Search Radius

Report Number	Author(s)	Report Title	Year	Includes Portion of the Project Area?
6959	ECORP Consulting, Inc.	Cultural Resource Inventory Diamond Plaza Placer County, California Project 2005-039	2006	No
8619	Cindy Arrington et al	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California	2006	Yes
10053	Angel Tomes	Roseville Downtown Land Use Plan, Cultural Resource Assessment, Placer County, California	2007	No
10829	David R. Cohen	Cultural Resources Records Search and Site Visit for T-Mobile West Corporation a Delaware Corporation Candidate SC54512-A (Woodcreek Plaza), 7456 Foothills Boulevard, Roseville, Placer County, California	2011	No
12765	Ric Windmiller	Pleasant Grove Boulevard/Foothill Boulevard Property Cultural Resources Inventory/Evaluation Report Roseville, Placer County, California	2018	No

The results of the records search indicate that the majority of the property has been previously surveyed for cultural resources; however, these four previous studies were conducted between 16 and 41 years ago under obsolete standards. Two of the previous surveys occurred in 1981 and 1986, which was prior to the construction of Pleasant Grove Boulevard. The two most recent surveys from 2001 and 2006 did not cover the entire Project Area. The most recent surveys to cover most but not the entire current Project Area were conducted in 1986 and 2001. Therefore, ECORP conducted a pedestrian survey of the Project Area under current protocols. No cultural resources were previously recorded within the Project Area as a result of the previous studies.

The records search also determined that six previously recorded pre-contact and historic-era cultural resources are located within 0.5 mile of the Project Area (*Table 4.5-2*). Of these, four are believed to be associated with Native American occupation of the vicinity, and two are historic-era sites associated with the railroad and a trash scatter. There are no previously recorded cultural resources within the Project Area. There are two pre-contact isolates recorded in 1986 along the South Branch Pleasant Grove Creek. This waterway passes under an existing bridge within the Project Area.

Table 4.5-2. Previously Recorded Cultural Resources within the Records Search Radius					
Site Number CA-PLA-	**Primary Number P-31-**	**Recorder and Year**	**Age/ Period**	**Site Description**	**Within Project Area?**
-	26	J. Maniery, T. Ekness-Hoyle, Public Anthropological Research, 1986	Pre-contact	Isolate – Mano fragment	No
-	27	J. Maniery, T. Ekness-Hoyle, Public Anthropological Research, 1986	Pre-contact	Isolate – Mano fragment	No
-	41	J. Maniery, T. Ekness-Hoyle, Public Anthropological Research, 1986	Pre-contact	Isolate – Pestle fragment	No; adjacent to Project Area
-	42	J. Maniery, T. Ekness-Hoyle, Public Anthropological Research, 1986	Pre-contact	Isolate – Metate fragment	No; adjacent to Project Area
690H	816	Patti Johnson, 1990 and updates	Historic	Union Pacific Railroad	No
1128H	1462	Ric Windmiller Consulting Archaeologist, 1994	Historic	Artifact deposit along railroad	No

4.5.3.2 Records

The OHP's BERD for Placer County (dated March 3, 2020) did not include any resources within the Project Area (OHP 2020). There are numerous properties included on the list in the City of Roseville; however, the Project has no potential to impact these properties.

The National Register Information System (NPS 2022) failed to reveal any eligible or listed properties within the Project Area. The nearest National Register property, the Carnegie Library, is 1.7 miles southeast of the Project Area in downtown Roseville.

ECORP reviewed resources listed as CHL (OHP 1996) by the OHP (2022) on June 16, 2022. The nearest listed landmark is #780-1: First transcontinental railroad, Roseville (plaque located 2 miles southeast of the Project Area).

A review of *Historic Spots in California* (Kyle 2002) mentions CHL #780-1 as well, which commemorates the day that the first transcontinental railroad reached the town of Junction, now called Roseville.

The Caltrans Bridge Local and State Inventories (Caltrans 2018, 2019) did not list any historic-period bridges in or within 0.5 mile of the Project Area. However, one modern bridge, Bridge No. 19C0214, is present within the Project Area. Local bridge 19C0214 carries Pleasant Grove Boulevard over the South Branch Pleasant Grove Creek, 0.8 mile east of Woodcreek Oaks Boulevard Road. The bridge has a

continuous concrete span with a culvert span design. It was constructed in 1991 and was evaluated by Caltrans as a Category 5 bridge, not eligible for the National Register of Historic Places under Criterion C.

Historic GLO land patent records from the BLM's patent information database (BLM 2022) revealed that because the Project Area is linear and crosses two sections, the land has been patented several times (*Table 4.5-3*). A 160-acre plot was granted in 1861 to Benjamin Franklin Leet and Rudolph Wurttenberger and another 160 acres to Lucius Anson Booth and William Fulton, which both encompassed portions of the Project Area. No additional information was found on these individuals. The federal government granted public land to the railroads, which the railroad could then sell to finance railroad construction. The Project Area land was part of almost 45,000 acres and 18,800 acres in California granted to the Central Pacific Railroad, which later became part of the Southern Pacific Railroad, and the State of California. Portions of the Project Area were patented in 1861 and 1866.

Table 4.5-3. GLO Land Patent Records

Patentee	Patent Date	Serial Number	Patent Type/Authority	Location
Benjamin Franklin Leet and Rudolph Wurttenberger	10/1/1861	CACAAA 043056	March 3, 1855: Scrip Warrant Act of 1855 (10 Stat. 701)	160 acres; SE ¼ of Sec 29 of T11N R6E
Central Pacific Railroad	1/4/1866	CACAAA 039763	July 1, 1862: Grant-RR Union and Central (12 Stat. 489)	45,430 acres including the W ½ of Sec 29 of T11N R6E
State of California	4/17/1866	CACAAA 000562	September 4, 1841: Grant-Certain Land to State (5 Stat. 453)	18,748.35 acres including the SE ¼ and N ½ of SW ¼ of Sec 28 of T11N R6E
Lucius Anson Booth and William Fulton	10/25/1861	CACAAA 043061	March 17, 1842: Scrip or Nature of Scrip (5 Stat. 607)	160 acres; S ½ SW ¼ of Sec 29 and N ½ NW ¼ of Sec 33 of T11N R6E

The *Handbook of North American Indians* (Wilson and Towne 1978) lists the nearest Native American villages as *Pichiku,* located approximately 3 miles southeast of Roseville.

4.5.3.3 Map Review and Aerial Photographs

The review of historical aerial photographs and maps of the Project Area provide information on the past land uses of the property and potential for buried archaeological sites. This information shows the property was initially used for open land prior to modern development of land located northeast of historic downtown Roseville. Following is a summary of the review of historical maps and photographs.

- The 1855 BLM GLO Plat map for Township 11 North Range 6 East shows the South Branch Pleasant Grove Creek meandering through Sections 28 and 29. No development is depicted within the Project Area.
- The 1891 USGS Sacramento, California (1:125,000 scale) map depicts the town of Roseville and the Southern Pacific Railroad southeast of the Project Area. The Project Area is undeveloped with a branch of Pleasant Grove Creek meandering through a small portion of the Project Area.
- The 1910 USGS Roseville, California (1:31,680 scale) map depicts the Project Area land as undeveloped and located northwest of the town of Roseville. A branch of Pleasant Grove Creek and an unimproved road, which does not correspond with any modern road alignment, are depicted as passing through the linear Project Area. No other development is depicted within the Project Area. Kaseberg Creek is depicted south of the western end of the Project Area.
- Aerial photographs taken in 1947 show the Project Area, and land north of Roseville, as undeveloped oak woodland and grasslands. The Southern Pacific Railroad is at the eastern end of the Project Area. The unimproved road depicted on the 1910 topographic map is visible on the 1947 aerial and appears to be a two-track dirt road. A branch of Pleasant Grove Creek passes through the Project Area. Kaseberg Creek is located south of the western end of the Project Area with no riparian vegetation visible.
- The 1953 USGS Roseville, California (7.5-minute) map depicts the Project Area as undeveloped land with a branch of Pleasant Grove Creek intersecting the Project Area. The unimproved road continues to be depicted.
- No changes or development within the Project Area are visible on aerial photographs from 1947, 1957, and 1966.
- Aerial photographs taken in 1984 reveal a north/south road, today's Foothills Boulevard, present in the eastern end of the Project Area. Pleasant Grove Boulevard had yet to be constructed in 1984.
- The 1992 USGS Roseville, California (7.5-minute) map depicts Pleasant Grove Boulevard.
- Aerial photographs from 1993 show Pleasant Grove Boulevard within the Project Area and modern development beginning to surround the road. Bridge No 19C0214 is visible on the 1993 aerials over Pleasant Grove Creek. The 1998 aerial reveals that modern development has impacted the two-track dirt road depicted on earlier maps and aerials and is no longer present. By the 2005 aerials, the Project Area exists as it is today, a developed roadway surrounded by residential commercial development.

In sum, the property was undeveloped and vacant since at least 1855, and by 1993 Pleasant Grove Boulevard was constructed within the Project Area. Modern development surrounds the roadway today.

4.5.3.4 Sacred Lands File Results

The results of the NAHC search of the Sacred Lands File are still pending.

4.5.3.5 Other Interested Party Consultation Results

ECORP has not received any responses to the letters sent to the Placer County Historical Society and the Roseville Historical Society as of the date of the preparation of this document.

4.5.3.6 Field Survey Results

An ECORP archaeologist surveyed the Project Area for cultural resources on June 9, 2022. The entire Project Area is either paved over, built out, or contains landscaping (*Figures 4.5-1* and *4.5-2*). Alongside and within the road alignment for Pleasant Grove Boulevard, any safely accessible exposed ground was examined for evidence of pre-contact or historic-period cultural material, or cultural soils. Visibility was generally very poor (10 to 50 percent) as the alignment and right-of-way were paved or heavily landscaped. The same was true of the median, which also contained compact gravel fill in addition to landscaping and trees (*Figures 4.5-3* and *4.5-4*). No cultural resources were identified as a result of the pedestrian survey of Pleasant Grove Boulevard. Pleasant Grove Boulevard makes up the entire Project Area and was constructed in the 1990s; therefore, it is considered modern because it is less than 50 years old.

Figure 4.5-1. Overview from western end of Project Area, 700 feet west of Woodcreek Oaks Boulevard (view east-southeast; June 9, 2022).

Figure 4.5-2. Paved, mulched, and landscaped median in Pleasant Grove Boulevard (view southwest; June 9, 2022).

Figure 4.5-3. Overview: area of increased visibility in Pleasant Grove Boulevard median, south of Woodcreek Oaks Preserve (view east-northeast; June 9, 2022).

Figure 4.5-4. Overview: northern Project Area boundary at Foothills Boulevard (view southeast, June 9, 2022).

Staging Area at Assessor's Parcel Number 017-410-043-000

The staging area at the eastern end of the Project Area had been disturbed in the early 1990s for the construction of the Pleasant Grove Boulevard overpass over the Southern Pacific Railroad (outside of the Project Area) and was overgrown with invasive vegetation see (Figures 5.5-5 and 4.5-6). Visibility was less than 10 percent. Two modern, user-created dirt roads are present crossing the staging parcel; these areas of exposed soil were closely examined for any evidence of pre-contact or historic-period cultural material, or cultural soils. No cultural resources were identified as a result of the pedestrian survey of the proposed staging area.

Figure 4.5-5. Overview: staging area at eastern end of Project Area; Pleasant Grove Boulevard overpass, background left (view west-southwest, June 9, 2022).

Figure 4.5-6. Overview: dense invasive vegetation in staging area (view northeast, June 9, 2022).

4.5.4 Cultural Resources (V) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, it is possible that development planned as a part of General Plan buildout could adversely affect historical resources through modification of existing buildings and structures through demolition, deconstruction, relocation, or alteration, or adversely impact the setting through new land uses. However, the existing and proposed General Plan, the 2009 Downtown Specific Plan, and Chapter 19.61 of the City of Roseville's Zoning Ordinance contain goals and policies which would ensure that potential historical resources are assessed for their significance in advance of future development. Implementation of these goals and policies would reduce impacts, but if historical resources are substantially adversely affected by future development, the impact would be significant and unavoidable.

The cultural resources inventory investigation, which included a records search and field survey, did not identify any cultural resources within the Project Area. Therefore, the proposed Project would not affect any Historic Properties under Section 106 of the National Historic Preservation Act or Historical Resources under CEQA, and thus there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, individual development and infrastructure projects within the Planning Area would involve grading, excavation or other ground-disturbing activities which could disturb or damage unique archaeological resources. Even with implementation of City adopted Post-Review Discovery Procedures contained within Volume II Part C of the City's Internal Guidance for Management of Tribal Cultural Resources and Consultation (or those determined to be equally as effective by the City), this impact was found to be potentially significant and unavoidable.

As discussed above under question a), the cultural resources inventory investigation did not identify any archaeological resources within the Project Area. Therefore, it is expected the Project would not affect any known archaeological resources.

While impacts to known archaeological resources would not occur, the potential exists for buried pre-contact archaeological sites within alluvium along perennial waterways, including the South Branch Pleasant Grove Creek located beneath Pleasant Grove Boulevard and within the Project Area. A modern bridge carries the roadway over South Branch Pleasant Grove Creek today. The bridge was constructed in the 1990s, which may have impacted any buried deposits at this location. Prior to modern development, two pre-contact isolates were previously recorded in 1981 along South Branch Pleasant Grove Creek and south of the Project Area. Thus, there is a moderate potential for encountering intact buried deposits within 200-feet of where the Project Area intersects with the South Branch Pleasant Grove Creek and a low potential for the remaining Project Area. Project-related work within 200 feet of the bridge involves the removal of an existing median. This work and related ground disturbance is not expected to exceed the existing depth of disturbance from the construction of Pleasant Grove Boulevard. Nevertheless, there remains the potential for Project related ground-disturbing activities to expose previously unrecorded cultural resources which is considered a potentially significant impact.

According to the GPU EIR, with implementation of City adopted Post-Review Discovery Procedures contained within Volume II Part C of the City's Internal Guidance for Management of Tribal Cultural Resources and Consultation, this impact would be reduced to less than significant. Thus, there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, the general project vicinity is known to have been heavily used by Native American groups prehistorically; in addition, Roseville was settled by European immigrants by the mid-19th century. While some burial ground locations (generally from the historic-era) are known, there is the possibility that ground disturbing activities in the Planning Area could encounter prehistoric, historic-era, or other human remains. This impact was found to be significant and unavoidable.

Based on the records search conducted for the Project, no known burial sites are located within the Project area; however, there remains the potential that ground-disturbing activities could expose previously unknow human remains. Should that occur, as discussed under response b) above, City adopted Post-Review Discovery Procedures contained within Volume II Part C of the City's Internal Guidance for Management of Tribal Cultural Resources and Consultation would be implemented. With implementation of City adopted Post-Review Discovery Procedures, this impact would be reduced to less than significant and **no new impact** would occur.

4.5.5 Mitigation Measures

No new impact was identified and thus no additional mitigation is required.

4.6 Energy

4.6.1 Environmental Setting

Energy relates directly to environmental quality. Energy use can adversely affect air quality and other natural resources. The vast majority of California's air pollution is caused by burning fossil fuels. Consumption of fossil fuels is linked to changes in global climate and depletion of stratospheric ozone. Transportation energy use is related to the fuel efficiency of cars, trucks, and public transportation; choice of different travel modes (auto, carpool, and public transit); vehicle speeds; and miles traveled by these modes. Construction and routine operation and maintenance of transportation infrastructure also consume energy. In addition, residential, commercial, and industrial land uses consume energy, typically through the usage of natural gas and electricity. For the purposes of this analysis, the amount of fuel necessary for Project construction and operations is compared to that consumed in Placer County.

4.6.1.1 Energy Types and Sources

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. Natural gas provides California with a majority of its electricity followed by renewables, large hydroelectric and nuclear (California Energy Commission [CEC]

2021a). Roseville Electric has been providing electrical power to the City of Roseville's residents, businesses, and the City's street lighting system since 1912. In 1956, the City signed a contract for 69 megawatts of electric power from the Central Valley Project, which consists of a system of dams, reservoirs and power plants within central and northern California and marketed by the Western Area Power Administration (Western). Steady population growth created a need to obtain resources beyond this allocation of Federal power. Pacific Gas & Electric Company (PG&E) provides natural gas to Roseville. PG&E provides natural gas and electricity to most of the northern two-thirds of California, from Bakersfield and Barstow to near the Oregon, Nevada and Arizona State Line.

Placer County, which encompasses the Project Site, contains 22 power plants generating electricity, of which 13 are hydro-powered, four are solar-powered, three are biomass-fire, and two are geothermal (CEC 2021b).

4.6.1.2 Energy Consumption

Electricity use is measured in Kilowatt-Hours (kWh), and natural gas use is measured in therms. Vehicle fuel use is typically measured in gallons (e.g., gallons of gasoline or diesel fuel), although energy use for electric vehicles is measured in kWh. As previously stated, this impact analysis focuses on the two sources of energy that are relevant to the proposed Project: the equipment-fuel necessary for Project construction and the automotive fuel necessary for Project operations

Automotive fuel consumption in Placer County from 2017 to 2021 is shown in *Table 4.6-1*. As shown, fuel consumption has decreased slightly between 2017 and 2021.

Table 4.6-1. Automotive Fuel Consumption in Placer County 2016-2021

Year	Total Fuel Consumption
2021	191,500,244
2020	171,205,990
2019	196,735,287
2018	196,319,909
2017	195,374,227

Source: CARB 2021

4.6.2 Energy (VI) Environmental Checklist and Discussion

Except as provided in Public Resources Code Section 21099, would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒

No New Impact

The GPU EIR concludes that buildout of the General Plan would require energy in the forms of fossil fuels, natural gas, and electricity. A large body of existing regulations would have the effect of reducing energy demand and would reduce potential adverse environmental effects associated with energy demand. The General Plan also includes many policies that promote additional energy conservation and savings and that would reduce peak demand and associated environmental effects. Thus, impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during either project construction or operation were found to be less than significant.

In the analysis below, the amount of total construction-related fuel and post-construction operations fuel used was estimated using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1.

The proposed Project improvements are intended to address existing and future traffic deficiencies and improve circulation consistent with the City's Transportation System 2035 CIP. The consumption of electricity and natural gas is not a factor in this analysis. The two sources of energy associated with the Project includes the equipment fuel necessary for construction and the automotive fuel use during Project operations.

Project increases in construction fuel consumption are compared with the countywide fuel consumption in 2021, the most recent full year of data. As identified in *Table 4.6-1*, 191,500,244 gallons of fuel was consumed in Placer County in 2021 (CARB 2021).

Table 4.6-2. Proposed Project Construction Fuel Consumption

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Construction Equipment & Automotive Fuel Consumption		
Project Construction	85,419 gallons	0.044 percent

Source: Climate Registry 2016
Notes: The Project increases in off-road (construction) fuel consumption are compared with the countywide fuel consumption in 2021, the most recent full year of data.

Fuel necessary for Project construction would be required for the operation and maintenance of construction equipment and the transportation of materials to the Project Site. The fuel expenditure necessary to construct the improvements to Pleasant Grove Boulevard would be temporary, lasting only as long as Project construction. As indicated in *Table 4.6-2*, the Project's gasoline fuel consumption during the one-time construction period is estimated to be 85,419 gallons. This would increase the annual countywide gasoline fuel use in the County by 0.044 percent. As such, Project construction would have a nominal effect on local and regional energy supplies. No unusual Project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the state. Construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would judiciously use fuel supplies to minimize costs due to waste and subsequently maximize profits. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and requiring recycling of construction debris, would further reduce the amount of transportation fuel demand during Project construction. For these reasons, it is expected that construction fuel consumption associated with the Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

According to the Traffic Study prepared for the Project (Fehr & Peers 2022), the proposed Project itself would not generate automobile trips; but would instead increase the capacity in order to improve traffic operations. This would affect traffic patterns in the City. Therefore, potential impacts of the Project associated with fuel consumption during the post-construction operations is evaluated based upon AM and PM peak hour vehicle idling times as provided by Fehr & Peers (2022). The difference between fuel consumption generated under existing conditions and those generated under the Project are identified in *Table 4.6-3*.

Table 4.6-3. Proposed Project Post-Construction Operations Fuel Consumption

Energy Type	Annual Energy Consumption - Idling
Post-Construction Operations Automotive Fuel Consumption	
Existing Conditions	2,497 gallons
Project Conditions	2,191 gallons
Difference	-306 gallons

Source: Climate Registry 2016
Notes: The Project increases in off-road (construction) fuel consumption are compared with the countywide fuel consumption in 2021, the most recent full year of data.

As shown, implementation of the proposed Project would result in the reduction of 306 gallons of gasoline annually. This reduction in gasoline consumption is attributable to the reduction in automobile idling that is projected to occur with Project implementation. Therefore, the Project would result in a beneficial impact and fuel consumption associated with post-construction operations would not be inefficient, wasteful, or unnecessary. As such, **no new impact** would occur.

Except as provided in Public Resources Code Section 21099, would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

No New Impact

The GPU EIR concludes that buildout of the proposed GPU would not conflict with or obstruct a State or local plan for increasing renewable energy or energy efficiency. Policies and implementation measures in the proposed GPU include actions to increase the use and implementation of renewable energy resources and related impacts are less than significant.

As demonstrated, implementation of the proposed Project would result in the reduction of 306 gallons of gasoline annually. Therefore, the Project would directly support statewide goals of reducing the use of nonrenewable sources of energy. Therefore, the Project would directly support state and local plans for renewable energy development. **No new impact** would occur.

4.6.3 Mitigation Measures

No new impacts were identified, and no mitigation measures are required.

4.7 Geology and Soils

4.7.1 Environmental Setting

4.7.1.1 Geomorphic Setting

The City's Planning Area is located along the eastern margin of the Sacramento Valley and the western margin of the Sierra Nevada foothills. The Sacramento Valley, along with the San Joaquin Valley, comprise the Great Valley geomorphic province. The Great Valley is composed of thousands of feet of sedimentary deposits that have undergone periods of subsidence and uplift over millions of years. During the Jurassic (approximately 206 million years Before Present [BP]) and Cretaceous (approximately 144 million years BP) periods of the Mesozoic era, the Great Valley existed in the form of an ancient ocean. By the end of the Mesozoic era, the northern portion of the Great Valley began to fill with sediment as tectonic forces caused uplift of the basin. Geologic evidence suggests that the Sacramento Valley and San Joaquin Valley gradually separated into two separate water bodies as uplift and sedimentation continued. By the time of the Miocene epoch (approximately 24 million years BP), sediments deposited in the Sacramento Valley were mostly of terrestrial origin. In contrast, the San Joaquin Valley continued to be inundated with water for another 20 million years, as indicated by marine sediments dated to the late Pliocene epoch (approximately 5 million years BP). Most of the surface of the Great Valley is covered with Holocene (i.e., 11,700 years BP to present day) and Pleistocene (i.e., 2.6 million–11,700 years BP) alluvium. This alluvium is composed of sediments from the Sierra Nevada to the east and the Coast Range to the west that were carried by water and deposited on the valley floor.

The Sierra Nevada geomorphic province trends north-northwest from Bakersfield to Lassen Peak and includes the Sierra Nevada mountain range and a broad belt of western foothills. The Sierra Nevada block is composed of northwest-trending belts of metamorphic, volcanic, and igneous rocks that have undergone intense deformation, faulting, and intrusion. Active faults that mark the eastern edge of the Sierra Nevada have resulted in upthrusting and tilting of the entire Sierra Nevada block in the last 5 million years—steeply on the eastern edge (adjacent to the Mono Basin), and gently along the western edge (adjacent to the Great Valley). The gently rolling Sierra Nevada foothills are comprised of metamorphosed sedimentary rocks that have been intruded by igneous rocks. The rock formations that make up the western edge of the Sierra Nevada block likely originally formed as a volcanic arc that was later accreted (added) to the western margin of the continent during the Jurassic period.

Regional Seismicity and Fault Zones

Earthquakes can be measured in several ways. Earthquakes create certain types of waves with different velocities, which can be recorded on instruments called seismometers. The Richter Scale measures earthquake magnitude by plotting the amplitude (length and width) of the seismic waves, taking into consideration the distance from the seismometer. The scale is logarithmic so that a recording of magnitude 7, for example, indicates a disturbance with ground motion 10 times as large as a recording of magnitude 6. The Moment Magnitude scale is used by geologists to measure the magnitude of an earthquake based on the physical size of the fault rupture and slip displacement, as well as the amount of energy released. The Modified Mercalli scale is used by the public as a subjective measure of earthquake intensity; it does not have a mathematical basis. It was developed as a way of relating the intensity of ground shaking at any particular location to the physical effects that people experience. This scale is composed of 12 increasing levels of intensity that range from imperceptible shaking (Scale I) to catastrophic destruction (Scale XII).

Classifying and Identifying Faults

Geologists have determined that the greatest potential for surface fault rupture and strong seismic ground shaking is from active faults, that is, faults with evidence of activity during the Holocene epoch (the last 11,700 years). Faults classified as "potentially active" (where there is evidence that movement has occurred during the last 1.6 million years), have a lower potential for surface fault rupture and strong seismic ground shaking. Pre-Quaternary faults have exhibited evidence of movement more than 1.6 million years BP, and therefore are not considered active. Pre-Quaternary faults are generally not considered to represent a surface fault rupture or strong seismic ground shaking hazard (unless those faults are influenced by human-caused activity such as construction of a large water-storage reservoir directly over a fault zone).

Roseville is located within an area with relatively low seismic activity. As discussed in the General Plan Final EIR, there are no known fault traces within or adjacent to the City's Planning Area. The nearest active fault is a portion of the Dunnigan Hills Fault, approximately 30 miles to the west. Other active faults are located south of Lake Oroville, at Lake Tahoe, and in the Coast Ranges, approximately 45–60 miles away.

The Foothills Fault System is approximately 12 miles east of the City. This fault system includes a number of different faults, including the Bear Mountains Fault Zone. The northern portion of the Bear Mountains Fault Zone and the Maidu Fault (east of Folsom Lake), along with the northern portion of the Deadman Fault (north of Folsom Lake), have exhibited evidence of movement in the last 700,000 to 1.6 million years BP (Jennings and Bryant 2010). Therefore, these faults are considered potentially active. There are several pre-Quaternary faults within 10 miles of the Planning Area (City of Roseville 2010; Jennings and Bryant 2010), which are not considered to be active:

- Willows Fault Zone, which diagonally transects the Sacramento Valley from northwest to southeast, from Red Bluff to south Sacramento.
- Volcano Hill Fault, located in Granite Bay and extending northwesterly from Volcano Hill for approximately 1 mile, terminating near Eureka Road.
- Linda Creek Fault, along a segment of Linda Creek from Roseville to Sacramento County, east of the City Planning Area.
- An unnamed fault extending east–west between Folsom Lake and the City of Rocklin. Segments of this fault are concealed and are therefore unmapped. However, this unnamed fault could connect to the Bear Mountains Fault Zone, branches of which are located beneath the eastern edge of Folsom Lake.

Potential seismic hazards resulting from an earthquake consist of surface fault rupture, ground shaking, liquefaction, and landslides. The potential for each of these hazards to occur within the City Planning Area is evaluated in the GPU EIR and summarized below.

Surface Fault Rupture

Surface rupture is the actual cracking or breaking of the ground surface along a fault during an earthquake. Structures built over an active fault can be torn apart if the ground ruptures. However, surface ground rupture along a fault generally is limited to a linear zone that is only a few yards wide. The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) was created to help reduce the loss of life and property from an earthquake by prohibiting the construction of structures designed for human occupancy across the traces of active faults. The City Planning Area is not located within or adjacent to an Alquist-Priolo Earthquake Fault Zone (California Geological Survey [CGS] 2017). The nearest fault zoned under the Alquist-Priolo Act is a portion of the Dunnigan Hills Fault, approximately 30 miles to the west.

Seismic Ground Shaking

Ground shaking - motion that occurs as a result of energy released during faulting - could potentially result in the damage or collapse of buildings and other structures, depending on the magnitude of the earthquake, the location of the epicenter, and the character and duration of the ground motion. Other important factors to be considered are the characteristics of the underlying soil and rock and, where structures exist, the building materials used and the workmanship of the structures.

Ground motions from seismic activity can be estimated using a computer model. The CGS Probabilistic Seismic Hazards Assessment Model (CGS 2008.) indicates that a minimum peak horizontal acceleration ranging from 0.14 to 0.16 g (where g is the percentage of gravity) could be expected. This means there is a 1-in-10 probability that an earthquake will occur within 50 years that would result in a peak horizontal ground acceleration exceeding 0.14 to 0.16 g in the City's Planning Area. This calculation indicates that a low level of seismic ground shaking could occur at the Project site.

Liquefaction

Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and become fluid, similar to quicksand. The liquefaction potential depends on the type of soil, the level and duration of seismic ground motions, and the depth to groundwater. The locations that are most susceptible to liquefaction-induced damage have loose, water-saturated, granular sediment that is within 40 feet of the ground surface. Liquefaction poses a hazard to engineered structures, such as buildings, bridges, and underground utility pipelines, because the loss of soil strength can result in bearing capacity insufficient to support foundation loads and increased lateral pressure on retaining walls. Groundwater elevations vary from 90 to 140 feet BGS throughout most of the City's Planning Area (California Department of Water Resources [DWR] 2019). Groundwater in the downtown area and inner neighborhoods (southwest of SR 65 and northwest of I-80) ranges from 50 to 90 feet BGS (DWR. 2019.). Furthermore, the Planning Area is composed of well consolidated to very hard, older Pleistocene- to Eocene-age deposits, and active seismic sources are at least 30 miles away. Therefore, it is unlikely that the Planning Area would be subject to liquefaction in the event of a large magnitude earthquake.

Landslides

Landslide susceptibility is based on various combinations of factors such as rainfall, rock and soil types, slope, vegetation, seismic conditions, and human construction activities. Generally, landslides are expected to occur most often on slopes steeper than 15 percent, in areas with a history of landslides, and in areas underlain by geologic units that are weakly cemented.

The City Planning Area slopes upwards to the east, as part of the transition from the Sacramento Valley floor to the Sierra Nevada foothills. The northwestern edge of the Planning Area is at an elevation of approximately 70 feet Above Mean Sea Level (amsl), while the eastern portion of the Planning Area is approximately 230 feet amsl. The southeastern portion of the Planning Area, near Secret Ravine, is on a ridgeline that is approximately 400 feet amsl. Most of the new development in the Planning Area is planned for the nearly flat portion of the Sacramento Valley floor in the western and northwestern portions of the Planning Area, north of Baseline Road. The eastern and northeastern portions of the Planning Area, which are within the Sierra Nevada foothills, contain some areas where slopes exceed 15 percent. However, the Planning Area does not have a history of landslides, is composed of stable geologic units that are moderately to very strongly cemented, and active seismic sources are at least 30 miles away. Therefore, it is unlikely that landslides would pose a hazard in the Planning Area.

Seismic Seiches

Earthquakes may affect open bodies of water by creating seismic sea waves and seiches. Seismic sea waves (often called *tidal waves*) are caused by abrupt ground movements (usually vertical) on the ocean floor in connection with a major earthquake. Because of the Planning Area's long distance from the Pacific Ocean, seismic sea waves do not represent a hazard. A seiche is a sloshing of water in an enclosed or restricted water body, such as a basin, river, or lake, which is caused by earthquake motion; the sloshing can occur for a few minutes or several hours. There are no large water bodies in the City's Planning Area where seiches would represent a hazard. Folsom lake is approximately 3.25 miles east of the Planning Area, and as described above, the seismic hazards in the Sacramento Valley are very low, and therefore the risk of a seismic seiche that would overtop Folsom Lake and result in downstream flooding in the Planning Area is also considered very low.

4.7.1.2 Soils

Soil properties influence the development of building sites, including the engineering design, construction techniques, and site maintenance. The NRCS soil database provides an indication of the limitations of soils for dwellings without basements, small commercial buildings, and local roads and streets. The rating system indicates the extent to which the soils are limited by the soil features that affect building site development. NRCS soil limitations are based on the soil properties that affect the capacity of the soil to support a load without movement, and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity consist of depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. The properties that affect the ease and amount of excavation consist of flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

All of the soils in the City Planning Area have some limitations with respect to dwellings, small commercial buildings, and local roads and streets. In general, these limitations are related to a shallow depth to bedrock, low soil bearing strength, and a moderate to high shrink-swell potential. Construction in the Mehrten Formation presents particularly difficult challenges during the excavation process due to its extreme hardness. Excavator-mounted rock hammers are required to break up larger areas for construction, while specialized trenching equipment equipped with saw blades can be used to cut foundation and utility trenches for smaller projects.

Most soils can be categorized into hydrologic soil groups (which apply only to surface soil layers) based on runoff-producing characteristics. Hydrologic soil groups are factored into calculations of erosion and stormwater runoff potential when drainage plans are prepared for new development. Soils are assigned to groups A, B, C, or D. Group D soils have a very slow water infiltration rate and therefore have a very high stormwater runoff potential. Most of the Planning Area soils are assigned to Hydrologic Group D (NRCS 2019.). Water erosion hazards are particularly high in areas of steeper slopes along streambeds.

Expansive soils are composed largely of clays, which greatly increase in volume when saturated with water and shrink when dried. Because of this shrink-swell effect, structural foundations may rise during the rainy

season and fall during the dry season. If this expansive movement varies beneath different parts of a structure, the foundation may crack and portions of the structure may become distorted. Retaining walls and underground utilities may be damaged for the same reasons. Some of the soils in the City Planning Area are rated as moderately to highly expansive (NRCS 2019); these soils are located primarily along streambeds. According to the GPU EIR, proper foundation design and soil treatment can generally eliminate the problems caused by expansive soils.

4.7.1.3 Paleontological Resources

According to the GPU EIR, the Modesto, Riverbank, Turlock Lake, Mehrten, and Ione Formations all outcrop at the surface in various locations within the City Planning Area. Pleistocene-age sediments of the Modesto, Riverbank, and Turlock Lake Formations have yielded thousands of vertebrate fossils at localities throughout the Central Valley. The Project site is considered potentially sensitive for paleontological resources because it is located within the Riverbank and Turlock Lake Formations.

Because of site sensitivity, consistent with GPU EIR mitigation Measure 4.7-4, ECORP prepared a paleontological assessment memorandum for the Pleasant Grove Boulevard Widening Project (ECORP 2022d, Appendix E) to further evaluate Project area sensitivity for undiscovered paleontological resources. See Appendix E for the memorandum which provides records search database results, and more information on the probability of finding fossil specimens.

4.7.2 Geology and Soils (VII) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒

No New Impact

i) Surface Fault Rupture— According to the GPU EIR, there are no fault traces either within or immediately adjacent to the Planning Area. Thus, surface fault rupture would not pose a hazard for the Planning Area, and related impacts were found to be less than significant in the General Plan FEIR. Thus, the proposed Project would result in **no new impact** and no mitigation is required.

ii) Strong seismic ground shaking – According to the GPU EIR, development occurring through buildout of the General Plan and utilities and public facilities required to serve such development could subject people and structures to hazards associated with seismic ground shaking. However, implementation of General Plan policies and compliance with relevant laws and ordinances would reduce the potential for loss or damage from seismic hazards within the Planning Area to a less than significant level. Consistent with City policy, road widening improvement plans would be reviewed by City engineers to ensure that structures are consistent with standard engineering practices and requirements which are specifically designed to prevent the significant structural damage during seismic ground shaking. Thus, the proposed Project would result in **no new impact** and no mitigation is required.

iii) Seismic-related ground failure, including liquefaction – According to the GPU EIR, the depth to groundwater in the Planning Area ranges from 50 to 140 feet BGS; the Planning Area is underlain by stable, moderately cemented to very well cemented, older Pleistocene–Eocene age rock formations; and active seismic sources are at least 30 miles away. Therefore, liquefaction would not pose a hazard for the Planning Area and related impacts were found to be less than significant in the GPU EIR. Thus, the proposed Project would result in **no new impact** and no mitigation is required.

iv) Landslides – According to the GPU EIR, most land use change during General Plan buildout would occur in the nearly flat portions of the Sacramento Valley floor in the western and northwestern portions of the Planning Area. The eastern and northeastern portions of the Planning Area, which are within the Sierra Nevada foothills, have areas where slopes exceed 15 percent. However, the Planning Area does not have a history of landslides, is composed of stable geologic units that are moderately to very strongly cemented, and active seismic sources are at least 30 miles away. Therefore, landslides would not pose a hazard in the Planning Area, and this impact is was found to be less than significant in the GPU EIR. Thus, the proposed Project would result in **no new impact** and no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, General Plan buildout, and utilities and public facilities required to serve such development, would result in substantial grading, excavation, and movement of earth associated with site preparation activities. These activities would increase the potential for soil erosion from wind and water, and the potential for siltation of local drainages. However, the GPU EIR finds, with implementation of General Plan policies, combined with relevant laws and ordinances, the potential for soil erosion would be reduced to less than significant. In addition to adhering to all applicable General Plan policies, the Project also includes the following BMPs, which further serve to address potential soil erosion (for the full text of proposed BMPs, refer to Project Description Section 2.6.2 Construction Best Management Practices): BMP 2: SWPPP; BMP 3: Equipment Contaminants; BMP 4: Debris/Demolition; BMP 5: Erosion Control; and BMP 6: Toxic Materials Control and Spill Response Plan. Thus, the proposed Project would result in **no new impact** and no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, General Plan buildout and utilities and public facilities required to serve such development would result in substantial grading, excavation, and movement of earth associated with site preparation activities. These activities would increase the potential for soil erosion from wind and water, and the potential for siltation of local drainages. However as discussed in the GPU EIR, implementation of General Plan policies, combined with relevant laws and ordinances, would reduce the potential for soil erosion to less than significant. Thus, the proposed Project would result in **no new impact** and no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, development occurring as a part of General Plan buildout would result in the construction of buildings and infrastructure in areas of unstable soils and soils with a moderate to high shrink-swell potential. However, implementation of General Plan policies, combined with relevant laws and ordinances, would reduce the potential for hazards from unstable and expansive soils to less than significant. Thus, the proposed Project would result in **no new impact** and no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

No New Impact

The GPU EIR concludes that all new and infill development in the Planning Area is required to install utility connections for wastewater treatment at the Pleasant Grove or Dry Creek Wastewater Treatment Plants (depending on the location of the development). Therefore, alternative wastewater treatment systems (i.e., septic systems) would not be used within the City limits, and this impact is not addressed in the GPU EIR.

As a road widening project, the proposed Project does not include septic or other alternative wastewater disposal systems. Thus, there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Less than Significant Impact with Additional Mitigation

The GPU EIR concludes that the Planning Area contains paleontologically sensitive rock formations, and therefore construction activities associated with new and/or infill development under buildout of the

General Plan and public infrastructure required to serve such development could result in accidental damage to, or destruction of, unknown subsurface paleontological resources. With implementation of GPU EIR Mitigation Measure 4.7-4, this impact was found to be less than significant with mitigation incorporated.

GPU EIR Mitigation Measure 4.7-4 requires that when there is potential for a significant impact to paleontological resources, the following shall be implemented:

1. Consult the Paleontological Sensitivity Map.
2. For projects located in geologic units that are not identified as paleontologically sensitive and which do not involve ground disturbance to a depth greater than 5 feet below the ground surface, no further actions related to paleontological resources shall be required.
3. For projects that would be located in paleontologically sensitive geologic units, or those that would be located in non-paleontologically sensitive surficial units but would involve ground disturbance to a depth greater than 5 feet, provide a site-specific analysis of the project's potential to damage or destroy unique paleontological resources, and measures designed to protect unique paleontological resources, as needed and appropriate. Such measures may include, but are not limited to, construction worker personnel training, periodic monitoring during construction activities, stopping work within 50 feet of any fossil that is discovered, evaluation of the fossil by a qualified paleontologist, and proper recordation and curation of the specimen.

Because the Project is located within a sensitive paleontological geologic unit, ECORP Consulting, Inc. completed a thorough investigation of the potential to directly impact paleontological resources during Project construction (See Paleontological Assessment, Appendix E). This investigation included a paleontological record search through the University of California Museum of Paleontology (UCMP) database, the Paleobiology Database, and a desktop study of the geology and paleontology of the Project Area.

According to the Paleontological Assessment, the Project site is located along the eastern margin of the Sacramento Valley and western margin of the Sierra Nevada foothills. Along with the San Joaquin Valley to the south (collectively referred to as the Great Valley geomorphic province), thousands of feet of sedimentary deposits have collected in the Valley over geologic history. Today, much of the surface of the Great Valley is covered with Holocene (11,700 years ago to present) and Pleistocene (2.6 million years ago to 11,700 years ago) alluvium composed of sediments transported by water from the Sierra Nevada to the east and Coast Range to the west (AECOM 2020).

The surficial geology of the Project site is composed of Pleistocene nonmarine sediments belonging to the Turlock Lake Formation (Qtl) (Wagner et al. 1981; *Figure 4.7-1*). Although there are overlying geologic units that are also of high sensitivity, these units (i.e., Riverbank and Modesto formations) may not be present in the Project Area. Furthermore, because the Project Area is highly disturbed from previous construction of the road alignment, future construction may only reach depths within disturbed soils. In

case of depths exceeding disturbed soils at the surface, the four commonly found geologic units in the area are briefly discussed below from youngest to oldest (AECOM 2011).

4.7.2.1 Holocene Alluvium (Qha) (11,700 Years BP to Present)

Holocene alluvium consists of sand, gravel, and silt, generally containing only the remains of extant or modern taxa; low paleontological sensitivity.

4.7.2.2 Modesto Formation (Qm2, Qm1) (12,000 to 26,000 Years BP and 29,000 to 42,000 Years BP, Respectively)

The Modesto Formation consists of late Pleistocene tan to light gray gravely sand, silt, and clay forming alluvial terraces and fans; high paleontological sensitivity.

4.7.2.3 Riverbank Formation (Qr3, Qr2, Qr1) (130,000 to 450,000 Years BP)

The Riverbank Formation consists of Pleistocene reddish gravel, sand, and silt derived from ancient rivers, contains more mafic rock fragments than found in the San Joaquin Valley, and therefore can be easily distinguished from the Modesto Formation; high paleontological sensitivity.

4.7.2.4 Turlock Lake Formation (Qtl) (450,000 to 600,000 Years BP)

The Turlock Lake Formation consists of Pleistocene fine sand, silt, gravel, and clays eroded from alluvial fans derived from the plutonic rocks of the Sierra Nevada; high paleontological sensitivity.

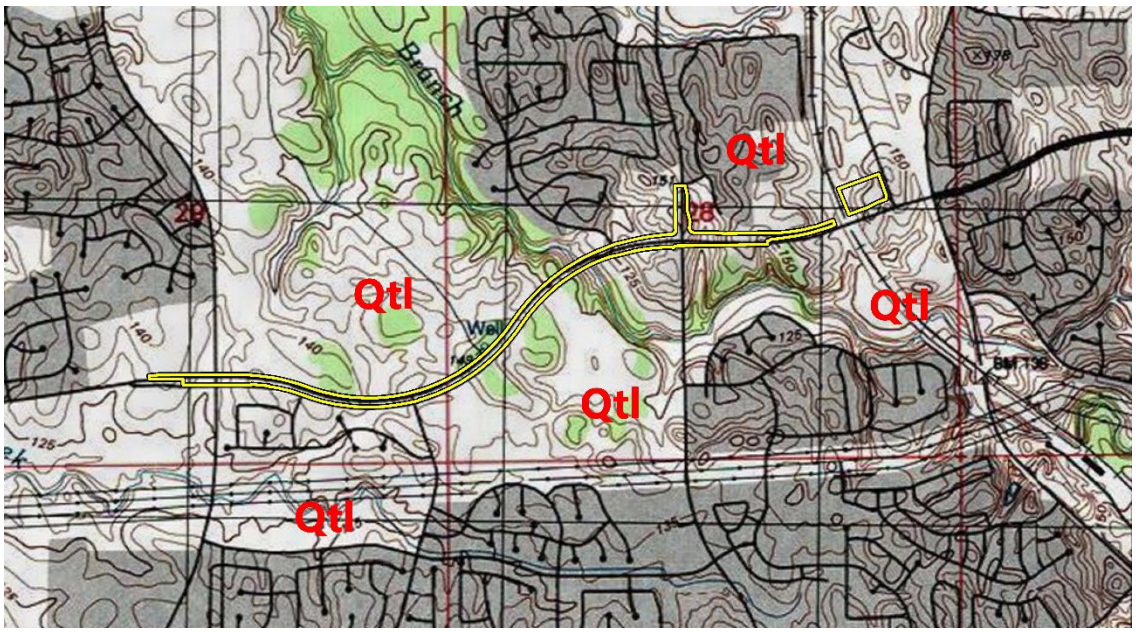


Figure 4.7-1. Geologic map showing Project alignment (yellow) and geologic unit (Qtl = Turlock Lake Formation) found at the Project site (USGS 1992).

A paleontological record search was conducted by AECOM (2019) through the UCMP. Although no fossils have been documented from the Project site, there have been fossils discovered from the same geologic units as those found at the Project site. In addition to the record search results, ECORP conducted an online record search on the UCMP database and published and unpublished literature. The UCMP database has a record of a single molar fragment from Mammut americanum (UCMP 1574) found nearby in the City of Rocklin. There are also numerous sites throughout the Great Valley where Ice Age fauna have been recovered from the Modesto, Riverbank, and Turlock Lake formations. *Table 4.7-1* lists a few of these localities.

Table 4.7-1. Closest Known Fossil Localities

Location	Formation	Taxa	Reference
Tranquility site, Fresno County	Modesto	Fish, turtles, snakes, birds, moles, gophers, mice, wood rats, voles, jack rabbits, coyotes, red fox, grey fox, badgers, horse, camel, pronghorn antelope, elk, deer, bison	AECOM, 2020
Sacramento area	Riverbank	Mammoth, bison, camel, coyote, horse, Harlan's ground sloth, antelope, deer, rabbit, woodrat, fish, mole, mice, squirrel, snake, gopher, dire wolf, frog, Pacific pond turtle, duck, geese, swan	AECOM, 2020
Fairmead Landfill, Madera County	Turlock Lake	>15,000 fossils from over 35 species including mammoth, ground sloth, giant short-faced bear, saber tooth cat, wolf, deer, camel, horse, antelope, rodents, birds, reptiles, fish, and prehistoric vegetation	AECOM, 2020 Kottachchi et al. 2008, 2009, 2011
SR 180 West Freeway, Fresno County	Turlock Lake	Camel, horse, mammoth	AECOM, 2020
Roseville	Turlock Lake	Fish, plant fragments, petrified wood, ichnofossils	AECOM, 2011

Given the paleontological sensitivity of the Turlock Lake formation which occurs on the Project site, the potential to destroy a unique paleontological resource during Project grading and/or excavation is considered potentially significant. The majority of road construction excavations would not exceed 4 to 5 feet below ground surface; therefore, no monitoring would be required at these locations. Also, given that the Project site is in a well-developed area, a pedestrian survey is not recommended. However, given the paleontological sensitivity of the Turlock Lake formation, spot-checking is recommended for certain construction activities exceeding 9 feet below ground surface as outlined in Mitigation Measure GEO-1 (which was developed consistent with GPU EIR Mitigation Measure 4.7-4). With implementation of Mitigation Measure GEO-1, this impact would be reduced to **less than significant with additional mitigation** incorporated.

4.7.3 Mitigation Measures

GEO-1: Conduct Paleontological Monitoring

"Spot-check" monitoring by a qualified paleontologist shall be conducted where the depth of Project excavation exceeds 9 feet. This may occur during relocation of signal poles (up to 11 feet deep) and/or storm drain facilities (up to 9 feet deep). If Pleistocene alluvial deposits are visible at these depths, full-time monitoring shall be required for the remainder of excavations at these locations. If no Pleistocene alluvial deposits are visible at these depths, spot-checking may halt.

Should paleontological resources be found during excavation, the paleontologist shall have the authority to divert heavy machinery away from the find(s) until the scientific value of the fossil(s) can be assessed. If of scientific significance, all pertinent field data shall be collected, and the fossil(s) salvaged. The fossil(s) shall be transported to a laboratory facility for cleaning and preparation prior to being transported and deposited in an accredited repository, such as the UCMP Berkeley, where they can be curated and made available for scientific study.

4.8 Greenhouse Gas Emissions

4.8.1 Environmental Setting

Greenhouse Gas (GHG) emissions are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and chlorofluorocarbons, creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to an unexpected warming of the earth and has the potential to severely impact the earth's climate system.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps more than 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e). Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

The CEQA Guidelines Appendix G thresholds for GHG emissions do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA. With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project.

The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or other performance-based standards." (14 California Code of Regulations [CCR] 15064.4(b)). A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently consider the project's incremental contribution to climate change." (14 CCR 15064.4(c)). Section 15064.4(b) provides that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment:

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). The CEQA Guidelines also clarify that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15130). As a note, the CEQA Guidelines were amended in response to Senate Bill 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions." Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

In *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal. 4th 2014, 213, 221, 227, following its review of various potential GHG thresholds proposed in an academic study [Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203], the California Supreme Court identified the

use of numeric bright-line thresholds as a potential pathway for compliance with CEQA GHG requirements. The study found numeric bright line thresholds designed to determine when small projects were so small as to not cause a cumulatively considerable impact on global climate change was consistent with CEQA. Specifically, Public Resources Code section 21003(f) provides it is a policy of the state that "[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." The Supreme Court-reviewed study noted, "[s]ubjecting the smallest projects to the full panoply of CEQA requirements, even though the public benefit would be minimal, would not be consistent with implementing the statute in the most efficient, expeditious manner. Nor would it be consistent with applying lead agencies' scarce resources toward mitigating actual significant climate change impacts." (Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203, 221, 227.)

The significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. On October 13, 2016, the PCAPCD adopted the bright-line numeric threshold of 1,100 metric tons of CO_2e per year for operations of land use projects and 10,000 metric tons of CO_2e per year for construction. For the purpose of this evaluation, the Project is compared to the PCAPCD construction-related and operational thresholds.

4.8.2 Greenhouse Gas Emissions (VIII) Environmental Checklist and Discussion

Except as provided in Public Resources Code Section 21099, would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒

No New Impact

The GPU EIR concludes that buildout of the General Plan would involve land use change and construction and operation of public facilities and infrastructure that would result in construction and operational GHG emissions. Even with implementation of various General Plan goals and policies, Plan Area buildout could still result in the generation of GHG emissions at a level that may have a significant impact on the environment and conflict with State GHG emission targets adopted for the purpose of reducing the GHG emissions. Therefore, General Plan buildout GHG emissions were found to be cumulatively considerable and potentially significant and unavoidable.

The Project's GHG impacts were assessed in accordance with methodologies recommended by the PCAPCD. Project construction GHG emissions were modeled using RCEM, version 9.0.0. The proposed

Project improvements are intended to address existing and future traffic deficiencies and improve circulation consistent with the City's Transportation System 2035 CIP. According to the Traffic Study prepared for the Project (Fehr & Peers 2022), the proposed Project itself would not generate automobile trips; but would instead increase the capacity in order to improve traffic operations. This would affect traffic patterns in the City. Therefore, potential impacts of the Project from mobile-source GHG emissions during the post-construction operations is evaluated based upon AM and PM peak hour vehicle idling times as provided by Fehr & Peers (2022). GHG emissions generated from automobile idling in the Project Limits are estimated with the use of EMFAC 2021.

Projected operational emissions associated with proposed post-construction operations are compared to the existing baseline, which includes the current operations accommodated by the segment of Pleasant Grove Boulevard beginning 1,500 feet east of Foothills Boulevard to 700 feet west of Woodcreek Oaks Boulevard. This segment encompasses the following facilities:

- Pleasant Grove Boulevard/Woodcreek Oaks Boulevard intersection (currently 43 – 35 seconds of delay per vehicle)
- Pleasant Grove Boulevard/Birkdale Drive-Retreat Way intersection (currently 79 – 268 seconds of delay per vehicle)
- Pleasant Grove Boulevard/Country Club Drive intersection (currently 10 – 20 seconds of delay per vehicle)
- Pleasant Grove Boulevard/Laporte Drive-Hemingway Drive intersection (currently 204 – >300 seconds of delay per vehicle)
- Pleasant Grove Boulevard/Misty Wood Drive intersection (currently 37 - 278 seconds of delay per vehicle)
- Pleasant Grove Boulevard/Foothills Boulevard intersection (currently 44 – 58 seconds of delay per vehicle)

In addition to identifying GHG emissions associated with the overall post-construction operations, emissions generated by the expected seconds of delay (automobile idling) at each intersection are identified individually.

4.8.2.1 Project Construction Generated GHG Emissions

Construction-related activities that would generate GHG emissions include on- and off-road equipment traffic. *Table 4.8-1* illustrates the specific construction generated GHG emissions that would result from construction of the Project. Once construction is complete, the generation of these GHG emissions would cease.

Table 4.8-1. Construction-Related Greenhouse Gas Emissions	
Description	**CO2e Emissions (Metric Tons/Year)**
Grubbing/Land Clearing	102
Grading/Excavation	230
Drainage/Utilities/Subgrade & Paving	535
Total Combined Emissions	867
PCAPCD Potentially Significant Impact Threshold	10,000 metric tons annually
Exceed PCAPCD Threshold?	No

Source: RCEM version 9.0.0. Refer to Appendix B-2 for Model Data Outputs.
Notes: Emission calculations account for the import/export of 1,000 cubic yards of soil and asphalt material daily during the grading/excavation phase and the import/export of 2,000 cubic yards of soil and asphalt material daily during the drainage/utilities/subgrade and paving phase.

As shown in *Table 4.8-1*, Project construction would result in the generation of approximately 867 metric tons of CO_2e over the course of construction, which is below the PCAPCD significance threshold. Once construction is complete, the generation of these GHG emissions would cease.

4.8.2.2 Operational Generated GHG Emissions

The proposed Project improvements are intended to address existing and future traffic deficiencies and improve circulation consistent with the City's Transportation System 2035 CIP. According to the Traffic Study prepared for the Project (Fehr & Peers 2022), the proposed Project itself would not generate automobile trips; but would instead increase the capacity in order to improve traffic operations. This would affect traffic patterns in the City. Therefore, potential impacts of the Project from mobile-source GHG emissions during the post-construction operations is evaluated based upon AM and PM peak hour vehicle idling times as provided by Fehr & Peers (2022). GHG emissions generated from automobile idling in the Project Limits are estimated with the use of EMFAC 2021.

Projected operational emissions associated with proposed post-construction operations are compared to current operations accommodated by the segment of Pleasant Grove Boulevard beginning 1,500 feet east of Foothills Boulevard to 700 feet west of Woodcreek Oaks Boulevard. Long-term operational GHG emissions are identified in *Table 4.8-2*. In addition to identifying GHG emissions associated with the overall post-construction operations, GHG emissions generated by the expected seconds of delay (automobile idling) at each of the following intersection are identified individually:

- Pleasant Grove Boulevard/Woodcreek Oaks Boulevard,
- Pleasant Grove Boulevard/Birkdale Drive-Retreat Way,
- Pleasant Grove Boulevard/Country Club Drive,
- Pleasant Grove Boulevard/Laporte Drive-Hemingway Drive,

- Pleasant Grove Boulevard/Misty Wood Drive, and
- Pleasant Grove Boulevard/Foothills Boulevard).

To isolate the effects of the Project without any induced travel demand, the proposed Project turning traffic volumes used in this analysis are representative of the existing volumes applied to the proposed Project geometry. The difference between GHG emissions generated under existing conditions and those generated under the Project are identified in *Table 4.8-3* and compared to the operational significance thresholds promulgated by the PCAPCD.

Table 4.8-2. Operational GHG Emissions for AM & PM Peak Periods (Metric Tons Annually)

Time	Trip Volume	Delay per Vehicle (sec)	CO_2e Emissions
Existing Conditions (2022)			
Pleasant Grove Boulevard/Woodcreek Oaks Boulevard Intersection	8,306	AM Peak: 43 PM Peak: 35	7.1
Pleasant Grove Boulevard/Birkdale Drive-Retreat Way Intersection	5,516	AM Peak: 2 PM Peak: 2	0.2
Pleasant Grove Boulevard/Country Club Drive Intersection	6,036	AM Peak: 10 PM Peak: 20	0.7
Pleasant Grove Boulevard/Laporte Drive-Hemingway Drive Intersection	6,025	AM Peak: 2 PM Peak: 10	0.9
Pleasant Grove Boulevard/Misty Wood Drive Intersection	6,166	AM Peak: 1 PM Peak: 4	0.4
Pleasant Grove Boulevard/Foothills Boulevard Intersection	11,075	AM Peak: 44 PM Peak: 58	12.7
		Existing Conditions Total	22.0
Proposed Project Conditions			
Pleasant Grove Boulevard/Woodcreek Oaks Boulevard Intersection	8,346	AM Peak: 37 PM Peak: 32	6.4
Pleasant Grove Boulevard/Birkdale Drive-Retreat Way Intersection	5,556	AM Peak: 0 PM Peak: 0	0.0
Pleasant Grove Boulevard/Country Club Drive Intersection	6,100	AM Peak: 8 PM Peak: 9	1.2
Pleasant Grove Boulevard/Laporte Drive-Hemingway Drive Intersection	6,117	AM Peak: 1 PM Peak: 1	0.1
Pleasant Grove Boulevard/Misty Wood Drive Intersection	6,212	AM Peak: 1 PM Peak: 1	0.1
Pleasant Grove Boulevard/Foothills Boulevard Intersection	11,265	AM Peak: 43 PM Peak: 48	11.5
		Proposed Project Conditions Total:	19.3

Source: EMFAC2021. Refer to Attachment B for Model Data Outputs.

As shown in *Table 4.8-2*, under the proposed Project, the segment of Pleasant Grove Boulevard beginning 1,500 feet east of Foothills Boulevard to 700 feet west of Woodcreek Oaks Boulevard and associated Project intersections would generate 19 metric tons of CO_2e annually, as a result of idling automobiles during the combined AM and PM peak hours. This is a reduction of 2.7 metric tons annually compared with existing conditions. Thus, the Project would result in a decrease of annual GHG emissions compared with existing conditions. Project emissions would not exceed the PCAPCD numeric GHG threshold.

In order to present a more concise comparison of idling GHG emissions during existing conditions and proposed Project post-construction operations, *Table 4.8-3* omits emissions generated at each individual Project intersection.

Table 4.8-3. Operational-Related GHG Emissions Summary

Activity	CO_2e (maximum pounds per day)
Existing Conditions (2022)	
Idling Emissions under Existing Conditions	22.0
Proposed Project Conditions	
Idling Emissions Under Proposed Project	19.3
PCAPCD Potentially Significant Impact Threshold	1,100 metric tons annually
Exceed PCAPCD Threshold?	No

Source: EMFAC2021. Refer to Appendix B-2 for Model Data Outputs.

As shown in *Table 4.8-3*, the Proposed Project would result in less emissions than existing conditions. Therefore, the Project would result in **no new impact**.

Except as provided in Public Resources Code Section 21099, would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

No New Impact

The GPU EIR concludes that buildout of the General Plan would involve land use change and construction and operation of public facilities and infrastructure that would result in construction and operational GHG emissions. Even with implementation of various General Plan goals and policies, Plan Area buildout could still result in the generation of GHG emissions at a level that may have a significant impact on the environment and conflict with State GHG emission targets adopted for the purpose of reducing the GHG emissions. Therefore, General Plan buildout GHG emissions were found to be cumulatively considerable and potentially significant and unavoidable.

The City does not currently have an adopted comprehensive plan for the purpose of reducing GHG emissions. However, as previously described, the State of California promulgates several mandates and goals to reduce statewide GHG emissions, including the goal to reduce statewide GHG emissions to 40 percent below 1990 levels by the year 2030 (Senate Bill [SB] 32). As previously shown, the proposed Project would result in less emissions than existing conditions. Thus, the Project is consistent with statewide GHG-reducing goals and **no new impact** would occur.

4.8.3 Mitigation Measures

No new impacts were identified, and no mitigation measures are required.

4.9 Hazards and Hazardous Materials

4.9.1 Environmental Setting

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined by the California Health and Safety Code, Section 25501 as follows:

> "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

A hazardous material is defined in 22 CCR Section 662601.10 as follows:

> A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

Transporters of hazardous waste in California are subject to several federal and state regulations. They must register with the California Department of Health Services (DHS) and ensure that vehicle and waste container operators have been trained in the proper handling of hazardous waste. Vehicles used for the transportation of hazardous waste must pass an annual inspection by the California Highway Patrol (CHP). Transporters must allow the CHP or DHS to inspect its vehicles and must make certain required inspection records available to both agencies. The transport of hazardous materials that are not wastes is regulated by the U.S. Department of Transportation through national safety standards.

Other risks resulting from hazardous materials include the use of these materials in local industry, businesses, and agricultural production. The owner or operator of any business or entity that handles a hazardous material above threshold quantities is required by state and federal laws to submit a business plan to the local Certified Unified Program Agency (CUPA). The Placer County Division of Environmental

Health is designated by the State Secretary for Environmental Protection as the CUPA for Placer County in order to focus the management of specific environmental programs at the local government level. The CUPA program is designed to consolidate, coordinate, and uniformly and consistently administer permits and conduct inspection and enforcement activities throughout Placer County. This approach strives to reduce overlapping and sometimes conflicting requirements of different governmental agencies independently managing these programs. It is not uncommon for other agencies, such as federal and state Occupational Safety and Health Administrations, to become involved when issues of hazardous materials arise.

Under Government Code Section 65962.5, both the California Department of Toxic Substances Control (DTSC) and the State Water Resources Control Board (SWRCB) are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. The Project site is not listed by the DTSC as a hazardous substances site on the list of hazardous waste sites compiled pursuant to Government Code § 65962.5 (Cortese List).

4.9.2 Hazards and Hazardous Materials (IX) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, future buildout population growth would result in an increase in the routine transport, use, and/or disposal of hazardous materials, which could result in greater exposure of the public to such materials and exposure of increasing numbers of people through either routine use or accidental release. However, implementation of General Plan policies, in combination with existing federal and state regulations, would reduce the potential impacts related to the routine transportation of hazardous materials to less than significant.

Project construction and operation could involve small quantities of commonly used hazardous materials, such as fuels, lubricants, and oils, to operate construction equipment and motor vehicles. However, no hazardous materials would be disposed of on the project site. As discussed in the project description, the Project would implement the following BMPs during construction: BMP 2: SWPPP; BMP 3: Equipment Contaminants; and BMP 6: Toxic Materials Control and Spill Response Plan (see Project Description Section 2.6.2 Construction Best Management Practices for the full text of proposed BMPs). Implementation of proposed BMPs and compliance with adopted General Plan policies, in combination with existing federal and state regulations, would ensure preparation and implementation of a stormwater pollution prevention plan (SWPPP). The SWPPP would ensure hazardous material management practices would be implemented to reduce exposure to, or potential for, accidental spills involving hazardous materials. A toxic materials control and spill response plan, which includes the preparation of a hazardous

material spill prevention, control, and countermeasure plan, would also be prepared prior to construction and implemented during construction, and would serve to avoid or minimize the risk of spills or discharges of toxic materials into waterways. Additionally, a health and safety plan (prepared by a registered industrial hygienist) would be prepared that addresses release prevention measures, employee training, notification, and evacuation procedures, and adequate emergency response protocols and cleanup procedures. Finally, during operation, all hazardous material transporters that may use the Project segment of Pleasant Grove Boulevard to transport hazardous waste would be subject to applicable state and federal regulations that ensure the safe tracking and transport of hazardous materials. Therefore, there would be **no new impact** and no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, future population growth with buildout of the General Plan would result in an increase in the routine transport, use, and/or disposal of hazardous materials, which could result in greater exposure of the public to such materials and exposure of increasing numbers of people through either routine use or accidental release. Implementation of adopted General Plan policies, in combination with existing federal and state regulations, would reduce the potential impacts related to the routine transportation of hazardous materials to less than significant.

The Project is a road widening project. Potential hazardous material impacts during construction are addressed by proposed BMPs, adopted general plan policy, and state and federal regulations as discussed in response a) above. Implementation of current state and federal regulations, as well as adopted General Plan policy would serve to minimize both the frequency and the magnitude of potential impacts of the routine transportation of hazardous materials in the City. Thus, there would be **no new impact** and no additional mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, buildout of the General Plan could result in development of uses that would emit or handle hazardous waste in proximity to new or existing schools. However, implementation of proposed GPU policies and compliance with existing regulations would ensure that the impact is less than significant.

Hazardous materials are routinely transported by truck over state and federal highways as well as local roads, including Pleasant Grove Boulevard. California Vehicle Code Section 31303 requires that hazardous materials be transported via routes with the least overall travel time. Although the choice of routes is left primarily to the discretion of the transporter, the California Vehicle Code prohibits the transport of hazardous materials through residential neighborhoods. There are no designated routes for the transport of hazardous materials by truck within the City of Roseville. However, the City has designated truck routes that are intended to divert traffic away from residential areas.

Existing General Plan Hazardous Materials Goals and Policies augment existing state hazardous materials regulations related to schools and would apply to hazardous materials transport through the Project area. Furthermore, these policies require the transport of hazardous materials in compliance with local, state, and federal safety requirements, which help to protect schools. As discussed in the GPU EIR, enforcement of California Department of Education school siting regulations, permitting requirements for individual hazardous material handlers and emitters, would prevent future conflicts between hazardous materials transport and schools and thus related impacts are less than significant and there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, several sites within the City are listed on the Cortese List as known hazardous materials sites. New and infill development proposed consistent with the General Plan could expose construction workers to hazards and hazardous materials from these sites during construction activities, and hazardous materials on-site could create an environmental or health hazard if left in place. However, existing adopted City General Plan goals and policies combined with required federal and state regulations pertaining to hazardous site cleanup, ongoing remedial activities at known contamination sites, requirements for site-specific environmental site assessments, and identification of the location of underground pipelines prior to site-specific earthmoving activities, reduce the potential for future hazardous materials impacts to less than significant.

The proposed Project is considered an infill development project consistent with the General Plan and City adopted Transportation System Capital Improvement Program. Except for one location, all proposed road widening would occur within existing City owned right-of-way which, consistent with City policy, was previously evaluated for hazardous materials prior to land dedication. Thus, all proposed road construction within existing right-of-way has been previously evaluated for, and found not to contain, hazardous materials. The exception is approximately 500-linear feet of private property located at the northeast corner of the Foothills Boulevard intersection. At this location, approximately 10 feet of additional right-of-way (or approximately 5,000 square feet) would be acquired by the City to accommodate the Project. Consistent with City policy, a Phase 1 Environmental Site Assessment was prepared for this property (Blackburn Consulting 2022, Appendix F). According to the Site Assessment, no Recognized Environmental Conditions were identified at or adjacent the proposed acquisition area. Furthermore, the Site Assessment found that construction of Pleasant Grove Boulevard was completed between 1993 and 1998, and therefore, aerially deposited lead is not anticipated along the Project alignment. As documented in the Phase 1 Environmental Site Assessment, the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and proposed road widening would have a less than significant impact with regard to creating a significant hazard to the public or the environment. Thus, there would be **no new impact**.

	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
e) 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 for people residing or working in the Project Area?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, the closest airport to the City is the Rio Linda Airport in Sacramento County, approximately 6.3 miles southwest of the Planning Area. The Planning Area is not located within the overflight, noise, or other airport hazard zones of any airport. Therefore, buildout consistent with the General Plan would have no impact related to safety hazards for aircraft or for people residing or working in the vicinity of an airport, and related impacts are less than significant.

The Project is limited to road widening and does not propose housing. As discussed above, the City Planning Area is not located within any overflight, noise, or other airport hazard zone. Thus, it would not result in an airport related safety hazard for people residing or working in the Project Area and there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, General Plan buildout would add additional traffic and residences requiring evacuation in case of an emergency. Implementation of proposed GPU policies would ensure conformance with local emergency-response programs and continued cooperation with emergency-response service providers and related impacts were found to be less than significant.

As a road widening project, the completed Project would reduce traffic congestion and improve level of service. Consistent with City policy and as required by BMP-7: Emergency Vehicle Response, during construction the Public Works Department would coordinate with City Police and Fire Departments to ensure potential effects of temporary lane closures on emergency response are addressed, including any required changes to emergency vehicle routing or temporary changes in fire station servicing areas. Therefore, consistent with City policy and BMP-7, the Project would not Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and related impacts are less than significant and there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, General Plan buildout could potentially increase risk to fire for both people and property. However, implementation of adopted General Plan policies and actions, along with existing regulations would ensure that people and structures would not be exposed to a significant risk of loss or injury involving fires and this impact was found to be less than significant.

Proposed road widening would primarily occur to the interior of existing Pleasant Grove Boulevard which would not significantly increase exposure of people or structures to risk of loss, injury or death involving wildland fires. Furthermore, the Project would be constructed and operated consistent with applicable General Plan goals and policy, including design and construction standards related to roadways and ingress and egress points for emergency vehicles. The Project would also adhere to the City's Multi-Hazard Mitigation Plan and Emergency Operations Plan. These actions ensure potential wildland fire impacts are reduced to less than significant. Thus, there would be **no new impact**.

4.9.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.10 Hydrology and Water Quality

4.10.1 Environmental Setting

4.10.1.1 Regional Hydrology

At a regional level, the City of Roseville is with the Sacramento River Basin watershed, which covers approximately 26,500 square miles and is bounded by the Sierra Nevada to the east, the Coast Ranges to the west, the Cascade Range and Trinity Mountains to the north, and the Sacramento-San Joaquin Delta to the south. The Sacramento River is the principal river in the watershed. The principal tributaries to the Sacramento River are the Pit and McCloud Rivers, which join the Sacramento River from the north, and the Feather and American Rivers, which join the Sacramento River from the east.

There are 14 smaller watersheds in Placer County and the City Planning Area is located within portions of four of these watersheds: Pleasant Grove Creek, Curry Creek, Dry Creek, and Steelhead Creek. The Planning Area is traversed by a number of westward-flowing creeks within each watershed. All streams in the Planning Area ultimately discharge to the Sacramento River.

4.10.1.2 Site Hydrology and Drainage

The Project is located in the Pleasant Grove Creek Watershed which totals approximately 30,000 acres, approximately 15,500 acres of which is within the City Planning Area. Pleasant Grove Creek is the main surface water feature. Several tributaries flow into Pleasant Grove Creek including South Branch Pleasant Grove Creek, Kaseburg Creek, Coyote Creek, and University Creek. Within the Project limits, the South Branch of Pleasant Grove Creek passes under Pleasant Grove Boulevard via culvert just west of Misty Wood Drive. Pleasant Grove Creek discharges into the Pleasant Grove Creek Canal west of the City Planning Area in Sutter County, which flows into the Natomas Cross Canal and thence into the Sacramento River near Verona.

Pleasant Grove Creek and its tributaries were historically dry or very nearly dry in the summer months but are now mostly perennial due to urban development and rice farming. Elevations in this subwatershed within the City Planning Area range from approximately 265 feet near Fairway Drive, decreasing to approximately 65 feet in at the northwestern border of the Planning Area next to Pleasant Grove Creek. Downstream of the Project site and in the western portion of the City, Pleasant Grove Creek receives the treated effluent from the City of Roseville's Pleasant Grove Wastewater Treatment Plant.

4.10.2 Regulatory Setting

4.10.2.1 Placer County Flood Control and Water Conservation District

The Placer County Flood Control and Water Conservation District was created by SB 1312, effective August 23, 1984. The PCFCWCD coordinates with the County and with incorporated cities to implement regional flood control projects; develop and implement master plans for selected watersheds in the county; provide technical support and information on flood control for the cities, the county, and the development community; operate and maintain an Alert flood warning system; review proposed developments projects to ensure they meet PCFCWCD standards; develop hydrologic and hydraulic models for county watersheds; provide technical support for Office of Emergency Services activities; and manage the annual stream channel maintenance program with the Dry Creek Watershed outside of the City limits.

4.10.2.2 City of Roseville MS4 Permit

All Phase II communities are subject to the permit requirements of the State-issued Municipal Separate Storm Sewer System (MS4) Permit which supersedes the previous state order. This order took effect on July 1, 2013 and prescribes the requirements of all Phase II communities in meeting water quality objectives. The City has continued to modify its practices to conform to the priorities, activities, and strategies of the MS4 permit and to enact the minimum control measures and BMPs intended to address Phase II discharges, as required by the permit. The goal is to reduce pollutants in stormwater to the maximum extent practicable. The MS4 Permit identifies activities to implement minimum control measures required under the General Permit: public outreach, public involvement, illicit discharge detection and elimination, construction site runoff, new development and redevelopment, municipal operations, water quality monitoring, and program effectiveness.

The MS4 Permit includes minimum required control measures for new development, such as structural and non-structural control strategies, and long-term operation and maintenance of controls. It includes specific guidance for volume and flow control design parameters for structural controls such as detention ponds, vegetative areas, runoff pretreatment in the form of source control and Low-Impact Development (LID) strategies, and hydromodification.

The City's *Stormwater Quality BMP Guidance Manual for Construction* (City of Roseville 2011a) was developed to fulfill part of the requirements of the MS4 permit. The City of Roseville has adopted storm water quality design standards to reduce water pollution generated by urban runoff. These design standards are detailed in the *West Placer Stormwater Quality Design Manual* (cbec eco engineering, inc. and CDM Smith 2018), which also fulfills part of the MS4 permit requirements.

4.10.2.3 City of Roseville Stormwater Quality BMP Guidance Manual for Construction

The *Stormwater Quality BMP Guidance Manual for Construction* (City of Roseville 2011a) was developed as part of the City's program to implement the goals contained in the *City of Roseville Stormwater Management Program* (City of Roseville 2004), as required by the NPDES municipal stormwater permit

from the SWRCB. The BMP Guidance Manual provides the requirements for preparation and submittal of SWPPPs for construction activities, including the City's and the State's procedural requirements for SWPPP submittals and site inspections related to stormwater quality. The BMP Guidance Manual also identifies the various construction-related BMPs that can be used within the City to control construction site runoff. The manual addresses issues such as erosion control, sediment control, and good housekeeping practices.

4.10.2.4 Roseville Urban Stormwater Quality Management and Discharge Control Ordinance

The City adopted its Urban Stormwater Quality Management and Discharge Control Ordinance (Stormwater Ordinance) (Municipal Code, Title 14, Chapter 14.20) to establish a regulatory framework to implement construction and post-construction stormwater controls. The ordinance is intended to enhance the water quality of watercourses and water bodies in a manner pursuant to and consistent with the Federal Clean Water Act and the city's NPDES permit by reducing pollutants in stormwater discharges to the maximum extent practicable and by effectively prohibiting non-stormwater discharges to the City's stormwater conveyance system.

Site development construction plans must be accompanied by a stormwater management plan as required by the Stormwater Quality Design Manual. Prior to the issuance of a permit to construct and prior to installation and implementation of the specified BMPs, the construction plan and stormwater management plan must have been reviewed and accepted by the city engineer. The stormwater management plan must detail how stormwater generated from a site would be controlled, managed, and treated, including, but not limited to, incorporation of LID and hydromodification management concepts. The stormwater management plan must also evaluate the environmental characteristics of the project site and the potential impacts of all proposed development plans for the site on the water resources, and must demonstrate the effectiveness of the type of stormwater control measures proposed for managing stormwater generated from the site. In addition, a stormwater BMP maintenance plan must be developed for all post-construction stormwater control measures and include a schedule for when and how often maintenance of the stormwater control measures would occur, a list of any special equipment or skills required for proper maintenance, the estimated cost of maintenance, and a schedule for periodic inspections to ensure proper performance between maintenance events.

4.10.3 Hydrology and Water Quality (X) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, General Plan buildout would convert large areas of undeveloped land to residential, commercial, industrial, and mix-uses, as well as intensify land uses through infill development in existing downtown and major corridor areas, resulting in additional discharges of pollutants to receiving water bodies. Such pollutants would result in adverse changes to the water quality of local water bodies and could conflict with the Basin Plan. However, development projects would be subject to all adopted General Plan policies, along with current land use, stormwater, grading, and erosion control laws, regulations, and permit conditions. The goal of these as they relate to stormwater runoff, and surface and groundwater quality, is to ensure that adequate water quality protection is provided during site-specific project construction and operation. The goal of General Plan policies as they relate to stormwater management is to provide flood protection, enhance water quality, prevent infrastructure deterioration, and facilitate compliance with State and federal laws. Successful implementation of General Plan policies would avoid, minimize, or compensate for potential water quality impacts by requiring projects to reduce pollution and runoff through implementation of LID technologies, BMPs, pretreatment, and upgrades to stormwater and wastewater treatment capacity, as needed. In addition, all new and infill development envisioned under the General Plan would be required to comply with the provisions of the City's Municipal Code requiring proper drainage and erosion control, as well as the Stormwater Quality Design Manual, Stormwater Quality BMP Guidance Manual for Construction, and the City of Roseville Stormwater Management Program (2004) to reduce post-construction runoff in through the incorporation of BMPs, LID, and hydromodification management techniques. These measures would protect water quality as required by the Basin Plan and therefore, this impact would be less than significant.

The proposed Project will be designed, constructed, and operated consistent with the City's Municipal Code requiring proper drainage and erosion control, as well as the Stormwater Quality Design Manual, Stormwater Quality BMP Guidance Manual for Construction, and the City of Roseville Stormwater Management Program. In compliance with the above requirements, the final Project design will include appropriate LID and stormwater pre-treatment measures to ensure stormwater runoff generated by additional pavement is properly treated prior to discharge to surface waters. As such, potential impacts to surface or groundwater quality would be mitigated to less than significant and there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, General Plan buildout would result in additional impervious surfaces, which could reduce the amount of groundwater recharge and in turn, affect the yield of hydrologically

connected wells. However, a substantial reduction in groundwater recharge is not anticipated because most of the Planning Area soils provide only a low level of groundwater recharge. Future development would also result in a need for increased potable water. However, the City's Urban Water Management Plan (UWMP) and the Western Placer County Groundwater Management Plan (GMP) provide for sustainable management of groundwater supplies, and a Groundwater Sustainability Plan is in process. With compliance with existing regulations and implementation of adopted General Plan policies, this impact was found to be less than significant.

The Project includes approximately 1.3 miles of road widening resulting in the generation of approximately 1.7 acres of new impervious surface. The City Planning Area includes over 3,000 acres of open space designated land. Thus, the amount of Project generated impervious surface represents less than 1 percent of City designated open space that will remain undeveloped and continue to support the majority of groundwater infiltration within the City Planning Area. Therefore, with implementation of all adopted General Plan goals and policies, continued implementation of the City's UWMP, the Western Placer County GMP, and the Groundwater Sustainability Plan, potential Project impacts to groundwater recharge and sustainable groundwater basin management are less than significant and there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				
i) result in substantial erosion or siltation onsite or offsite;	☐	☐	☐	☒
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	☐	☐	☐	☒
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
iv) impede or redirect flood flows?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, construction and grading activities associated with buildout of the General Plan could result in excess runoff, soil erosion, and stormwater discharges of suspended solids and increased

turbidity. These activities could mobilize other pollutants from project construction sites as contaminated runoff to onsite and ultimately offsite drainage channels. Many construction-related wastes have the potential to degrade existing water quality. Construction activities that are implemented without mitigation could violate water quality standards or cause direct harm to aquatic organisms. However, with implementation of existing regulations and water quality policies contained in the adopted General Plan, this impact was found to be less than significant by the GPU EIR.

Pleasant Grove Boulevard was originally designed and constructed to accommodate future widening to the interior median. As such, existing storm drain facilities serving the roadway are sized for full buildout of Pleasant Grove Boulevard consistent with the City's Transportation System CIP. Therefore, post construction, drainage from newly paved areas would be directed to the existing storm drain system which is appropriately sized and designed to collect and dissipate stormwater energy and prevent erosion. Furthermore, because roadway drainage facilities are designed to accommodate peak discharge from the widened roadway, the Project would not result in on or offsite flooding, prevent, impede or redirect flood flows, exceed the capacity of existing or planned stormwater drainage system, or (as discussed under responses a) and b) above) provide substantial additional sources of polluted runoff. Therefore, related Project impacts are less than significant and there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, General Plan buildout could result in short-term, temporary, storage of materials in flood hazard zones only if a flood encroachment permit is issued. The Roseville Municipal Code contains requirements that are specifically intended to prevent downstream transport of pollutants in a flood zone. With implementation of policies contained in the proposed GPU and adherence to the Municipal Code, this impact was found to be is less than significant.

Because of the City Planning Area's distance from the Pacific Ocean, tsunamis would not represent a potential Project hazard and there are no waterbodies in the Planning Area that are large enough to result in seiche hazards. Furthermore, active seismic sources are more than 30 miles away. Thus, the Project site is not located within a designated flood hazard, tsunami, or seiche zone and there are no related potential pollutant impacts. However, while not anticipated, Project development could require temporary placement of stockpiled materials within the City's Regulatory Floodplain. Should this occur, it would be subject to City of Roseville Municipal Code regulations that are specifically designed to protect water quality by preventing downstream pollutant transport. Therefore, with implementation of adopted General Plan Flood Protection, Water Quality, and Groundwater Recharge Goals and Policies designed to protect water quality in floodplains, was well as adherence to Municipal Code requirements, potential impacts would be less than significant and there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

No New Impact

The GPU EIR evaluated the potential for conflict with or obstruction of a water quality control plan as part of Hydrology and Water Quality Environmental Checklist Question a) above. As discussed under question a) above, successful implementation of General Plan policies would avoid, minimize, or compensate for potential water quality impacts by requiring projects to reduce pollution and runoff through implementation of LID technologies, BMPs, pretreatment, and upgrades to stormwater and wastewater treatment capacity, as needed. In addition, all new and infill development envisioned under the General Plan would be required to comply with the provisions of the City's Municipal Code requiring proper drainage and erosion control, as well as the Stormwater Quality Design Manual, Stormwater Quality BMP Guidance Manual for Construction, and the City of Roseville Stormwater Management Program (2004) to reduce post-construction runoff in through the incorporation of BMPs, LID, and hydromodification management techniques. These measures would protect water quality as required by the Basin Plan and therefore, this impact was found to be less than significant in the GPU EIR.

The proposed Project would be designed, constructed, and operated consistent with the City's Municipal Code requiring proper drainage and erosion control, as well as the Stormwater Quality Design Manual, Stormwater Quality BMP Guidance Manual for Construction, and the City of Roseville Stormwater Management Program. In compliance with related requirements, the final Project design will include appropriate LID and stormwater pre-treatment measures to ensure stormwater runoff generated by additional pavement is properly treated prior to discharge to surface waters. As such, potential impacts related to conflict with, or obstruction of, a water quality control plan or sustainable groundwater management plan, would be mitigated to less than significant and there would be **no new impact**.

4.10.4 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.11 Land Use and Planning

4.11.1 Environmental Setting

Within the Project limits, Pleasant Grove Boulevard is primarily a four-lane roadway with Class II bike lanes, meandering sidewalks and associated landscaping, a variable width landscaped median, and a posted speed limit of 45 mph. Immediately east of the Project limits, Pleasant Grove Boulevard widens to a six-lane roadway east of Foothills Boulevard and serves as a four-lane roadway west of the Project limits. No on-street parking exists within the Project limits. As a roadway, the Project site is not zoned, however it

is designated Major Arterial by the General Plan Circulation Element. Existing adjacent land uses include residential, commercial, park and recreation and open space.

4.11.2 Land Use and Planning (XI) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Physically divide an established community?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, General Plan buildout would not physically divide an established community. The City's land use designations and roadway locations were planned comprehensively through the Specific Plan process to provide connected communities. Adopted General Plan policies continue to require new development areas and associated community-wide facilities to be linked and oriented to existing developed areas of the community through road networks, public transit systems, open space systems, bikeway and pedestrian systems, and other physical connections and encourage a development pattern that is contiguous with existing developed areas of the City. Existing General Plan policy ensure that transportation options within the City are multi-modal and connect residential areas to supporting land uses such as schools and parks. Thus, Planning Area buildout would not physically divide an established community, and this impact was found to be less than significant in the GPU EIR.

The Project is proposed consistent with the General Plan and would continue to maintain all existing public transit facilities, bikeway and pedestrian systems, and other physical connections that encourage a development pattern that is contiguous with existing adjacent areas. Thus, the Project would not physically divide an established community, there would be **no new impact** and no additional mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, the City of Roseville General Plan is consistent with other relevant plans, programs, and regulations that were developed to reduce or avoid environmental impacts. There are no inconsistencies between the adopted General Plan and other plans that would result in a significant environmental impact not already addressed by policy revisions adopted as part of the GPU. Therefore, this impact was found to be less than significant in the GPU EIR.

The Project is proposed consistent with adopted General Plan policy. Thus, Project implementation would not 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. There would be **no new impact** and no additional mitigation is required.

4.11.3 Mitigation Measures

No new significant impacts were identified, and no mitigation measures are required.

4.12 Mineral Resources

4.12.1 Environmental Setting

Minerals are defined as any naturally occurring chemical elements or compounds formed by inorganic processes and organic substances. Minable minerals are defined as a deposit of ore or minerals having a value materially in excess of the cost of developing, mining, and processing the mineral and reclaiming the project area. The conservation, extraction, and processing of mineral resources is essential to meeting the needs of society.

The Surface Mining and Reclamation Act of 1975 (SMARA) states that cities and counties shall adopt ordinances "...that establish procedures for the review and approval of reclamation plans and financial assurances and the issuance of a permit to conduct surface mining operations..." (Public Resources Code ([PRC] Section 2774). The intent of this legislation is to ensure the prevention or mitigation of the adverse environmental impacts of mining, the reclamation of mined lands, and the production and conservation of mineral resources are consistent with recreation, watershed, wildlife, and public safety objectives (PRC Section 2712).

SMARA requires the State Geologist to classify land into Mineral Resource Zones (MRZs) according to the known or inferred mineral potential of that land. The process is based solely on geology, without regard to existing land use or land ownership. The primary goal of mineral land classification is to ensure that the mineral potential of land is recognized by local government decision makers and considered before land use decisions, which could preclude mining, are made. Areas subject to California mineral land classification studies are divided into the following Mineral Resource Zone (MRZ) categories that reflect varying degrees of mineral potential:

- MRZ-1: Areas of no mineral resource significance
- MRZ-2: Areas of identified mineral resource significance
- MRZ-3: Areas of undetermined mineral resource significance
- MRZ-4: Areas of unknown mineral resource significance

There are no MRZ zones designated within Project site or City of Roseville.

4.12.2 Mineral Resources (XII) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, the City of Roseville does not overlie any known deposits of economically valuable mineral resources. Therefore, mineral resources are not evaluated in detail in the GPU EIR and related impacts were found to be less than significant.

Proposed road widening would primarily occur into the existing interior median of Pleasant Grove Boulevard which does not include any known valuable mineral resources but rather accommodates landscaping. Further, as discussed above, no deposits of economically valuable mineral resources are known to underlie the City. Thus, the Project would not 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 and related impacts are less than significant. Thus, there would be **no new impact** and no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

No New Impact

As discussed above, according to the GPU EIR, the City of Roseville does not overlie any known deposits of economically valuable mineral resources (Loyd 1995). Furthermore, no SMARA permits have been issued within the City Planning Area, and the City doesn't overlie any designated mineral resource recovery sites. No mining activities are currently underway within the City nor does the City anticipate that any mining activities will take place in the future. Therefore, the potential for loss of locally important mineral resources was considered less than significant in the GPU EIR.

Because there are no designated resource recovery sites in the City, proposed road widening would not 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. thus, there would be **no new impact** and no mitigation is required.

4.12.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.13 Noise

This section is based on results of the Noise Impact Assessment for the Pleasant Grove Boulevard Project prepared by ECORP (2022e) (IS/MND Appendix G).

4.13.1 Environmental Setting

4.13.1.1 Noise Fundamentals

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in L_{dn}/CNEL). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

- **Equivalent Noise Level (L_{eq})** is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- **Day-Night Average (L_{dn})** is a 24-hour average L_{eq} with a 10-dBA "weighting" added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 A-weighted-decibel (dBA) 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
- **Community Noise Equivalent Level (CNEL)** is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively.

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations.

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2011). Soft surfaces, such as soft dirt or grass, can absorb sound,

so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed (FHWA 2011).

The manner in which older structures in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). The exterior-to-interior reduction of newer structures is generally 30 dBA or more (Harris Miller Miller & Hanson Inc. 2006).

4.13.1.2 Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60- to 70-dBA range, and high, above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA, the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1.0 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3.0-dBA change is considered a just-perceivable difference.
- A change in level of at least 5.0 dBA is required before any noticeable change in community response would be expected. An increase of 5.0 dBA is typically considered substantial.
- A 10.0-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

4.13.1.3 Noise Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as

hospitals, historic sites, cemeteries, and certain recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The nearest existing noise-sensitive land uses to the Project are residences positioned adjacent to the northern and southern boundaries of the Project Limits. These residences are generally separated from Pleasant Grove Boulevard by a six-foot-high masonry wall and 30-foot-wide vegetated buffer with sidewalks.

4.13.1.4 Vibration Fundamentals

Ground vibration can be measured several ways to quantify the amplitude of vibration produced, including through Peak Particle Velocity (PPV) or root mean square velocity. These velocity measurements measure maximum particle at one point or the average of the squared amplitude of the signal, respectively.

Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

4.13.1.5 Existing Ambient Noise Environment

The American National Standards Institute (ANSI) Standard 12.9-2013/Part 3 "Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-Term Measurements with an Observer Present" provides a table of approximate background sound levels in L_{dn}, daytime L_{eq}, and nighttime L_{eq}, based on land use and population density. The ANSI standard estimation divides land uses into six distinct categories. Descriptions of these land use categories, along with the typical daytime and nighttime levels, are provided in *Table 4.13-1*. At times, one could reasonably expect the occurrence of periods that are both louder and quieter than the levels listed in the table. ANSI notes, "*95% prediction interval [confidence interval] is on the order of +/- 10 dB*." The majority of the Project Limits would be considered ambient noise Category 1, due to the heavy traffic conditions currently experienced.

Table 4.13-1. ANSI Standard 12.9-2013/Part 3 A-weighted Sound Levels Corresponding to Land Use and Population Density

Category	Land Use	Description	People per Square Mile	Typical L_{dn}	Daytime L_{eq}	Nighttime L_{eq}
				(dBA)		
1	Noisy Commercial & Industrial Areas and Very Noisy Residential Areas	Very heavy traffic conditions, such as in busy, downtown commercial areas; at intersections for mass transportation or other vehicles, including elevated trains, heavy motor trucks, and other heavy traffic; and at street corners where	63,840	67	66	58

Table 4.13-1. ANSI Standard 12.9-2013/Part 3 A-weighted Sound Levels Corresponding to Land Use and Population Density

Category	Land Use	Description	People per Square Mile	Typical L_{dn}	Daytime L_{eq}	Nighttime L_{eq}
				(dBA)		
		many motor buses and heavy trucks accelerate.				
2	Moderate Commercial & Industrial Areas and Noisy Residential Areas	Heavy traffic areas with conditions similar to Category 1, but with somewhat less traffic; routes of relatively heavy or fast automobile traffic, but where heavy truck traffic is not extremely dense.	20,000	62	61	54
3	Quiet Commercial, Industrial Areas and Normal Urban & Noisy Suburban Residential Areas	Light traffic conditions where no mass-transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at moderate speeds; residential areas and commercial streets, and intersections, with little traffic, compose this category.	6,384	57	55	49
4	Quiet Urban & Normal Suburban Residential Areas	These areas are similar to Category 3, but for this group, the background is either distant traffic or is unidentifiable; typically, the population density is one-third the density of Category 3.	2,000	52	50	44
5	Quiet Residential Areas	These areas are isolated, far from significant sources of sound, and may be situated in shielded areas, such as a small wooded valley.	638	47	45	39
6	Very Quiet Sparse Suburban or rural Residential Areas	These areas are similar to Category 4 but are usually in sparse suburban or rural areas; and, for this group, there are few if any nearby sources of sound.	200	42	40	34

Source: The American National Standards Institute (ANSI) 2013

4.13.1.6 Existing Pleasant Grove Boulevard Noise Levels

Existing roadway noise levels were calculated for the roadway segments in the Project vicinity. This task was accomplished using the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) (see Appendix G-2 for model outputs) and traffic volumes from the Project's Traffic Study (Fehr & Peers. June 2022.). The model calculates the average noise level at specific locations based on traffic volumes,

average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data shows that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. The average daily noise levels along these roadway segments are presented in *Table 4.13-2*.

Table 4.13-2. Existing (Baseline) Traffic Noise Levels for Residential Surrounding Uses

Roadway Segment	L_{dn} at 75 feet from Centerline of Roadway (dBA)
Pleasant Grove Boulevard	
West of Woodcreek Oaks Boulevard	70.4
Between Woodcreek Oaks Boulevard & Birkdale Drive/Retreat Way	68.1
Between Birkdale Drive/Retreat Way & Country Club Drive	68.1
Between Country Club Drive & Laporte Drive/Hemingway Drive	68.4
Between Misty Wood Drive & Foothills Boulevard	68.8
East of Foothills Boulevard	69.8

Source: Fehr & Peers 2022.

As shown, the existing traffic-generated noise level on Project-vicinity roadways currently ranges from 68.1 to 70.4 dBA L_{dn}. L_{dn} is 24-hour average noise level with a 10 dBA "weighting" during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. Environmental noise levels are generally considered moderate in the 60 to 70 dBA range and high above 70 dBA.

4.13.2 Noise (XIII) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) 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?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, existing and planned noise-sensitive land uses in the Planning Area could occur in areas that either are currently adversely affected by transportation and non-transportation noise sources or will be in the future. This could expose noise-sensitive uses to noise levels in excess of the

existing General Plan noise policies. Buildout of the General Plan would also permanently and substantially increase existing ambient noise levels in certain locations. The General Plan establishes the City's standards for land use and noise compatibility and strategies for addressing conflicts. While the policy approach would reduce adverse noise exposure impacts, the City cannot demonstrate that potentially significant impacts would be avoided in every case. Thus, the impact was found to be significant and unavoidable.

4.13.2.1 Project Onsite Construction Noise

Construction noise associated with the proposed Project would be temporary and would vary depending on the specific nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., site preparation, excavation, paving). Noise generated by construction equipment, including earth movers, pile drivers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (i.e., dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site.

The nearest existing noise-sensitive land uses to the Project are residences positioned adjacent to the northern and southern boundaries of the Project Limits. These residences are generally separated from Pleasant Grove Boulevard by a six-foot-high masonry wall and 30-foot-wide vegetated buffer with sidewalks. The City of Roseville General Plan Noise Element Policy N1.9 states construction-related noise that is consistent with the City's Municipal Code is exempt from City noise standards. Chapter 9.24 of the City of Roseville Municipal Codes states that construction (e.g., construction, alteration or repair activities) between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday, and between the hours of 8:00 a.m. and 8:00 p.m. Saturday and Sunday, is exempt from City noise standards. The Project is proposing that construction activities take place between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 8:00 a.m. and 8:00 p.m. Saturday and Sunday, in compliance with City Municipal Code Chapter 9.24. As allowed by Municipal Code Chapter 9.24.020, the Project may also include extended construction hours, or in special situations, periods of nighttime work, so long as all reasonable measures are taken to minimize noise impacts.

To estimate the worst-case onsite construction noise levels that may occur at the nearest noise-sensitive receptors and in order to evaluate the potential health-related effects (physical damage to the ear) from construction noise, the construction equipment noise levels were calculated using the Roadway Noise Construction Model and compared against the construction-related noise level threshold established in the Criteria for a Recommended Standard: Occupational Noise Exposure prepared in 1998 by National Institute for Occupational Safety and Health (NIOSH). A division of the U.S. Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for

every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. For the purposes of this analysis, the lowest, more conservative threshold of 85 dBA L_{eq} is used as an acceptable threshold for construction noise at the nearby sensitive receptors.

It is acknowledged that the majority of construction equipment is not situated at any one location during construction activities, but rather spread throughout the linear Project Limits and at various distances from sensitive receptors. Therefore, this analysis employs the Federal Transit Administration (FTA) guidance for calculating construction noise, which recommends measuring construction noise produced by all construction equipment from the center of the Project Site (FTA 2018), which in this case is represented by the median of Pleasant Grove Boulevard, which is approximately 85 feet from the nearest sensitive receptor. The anticipated short-term construction noise levels generated for the necessary equipment is presented in Table 4.13-3.

Table 4.13-3. Construction Average (dBA) Noise Levels at Nearest Residential Receptors

Equipment	Estimated Exterior Construction Noise Level at Existing Residences (dBA)	Construction Noise Standards (dBA L_{eq})	Exceeds Standards?
Phase 1	79.9	*85*	**No**
Phase 2	82.4	*85*	**No**
Phase 3	83.7	*85*	**No**
Phase 4	79.9	*85*	**No**

Source: Construction noise levels were calculated by ECORP Consulting, Inc. using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Appendix G-3 for Model Data Outputs.

Notes: Construction equipment used during construction derived from the Project proponent and the Roadway Construction Emissions Model (RCEM). RCEM contains default construction equipment and usage parameters for typical roadway construction projects. The nearest residence is located approximately 85 feet from median of Pleasant Grove Boulevard.

L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

As shown in *Table 4.13-3*, Project onsite construction activities would not exceed the NIOSH threshold of 85 dBA L_{eq} at the nearest noise-sensitive receptors. As such, a less than significant impact would occur and there would be **no new impact**.

4.13.2.2 Offsite Construction Worker Traffic Noise

Construction associated with the Project would result in additional traffic on adjacent roadways over the period that construction occurs. According to the RCEM, which is used to predict the number of on-road Project construction-related trips, construction would not instigate more than 96 trips in a single day (up to 46 construction worker commute trips and up to 50 haul truck trips). According to the Caltrans

Technical Noise Supplement to the Traffic Noise Analysis Protocol (2013), doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference). The Project Limits are predominantly contained within Pleasant Grove Boulevard, which is regionally accessible from SR 65. According to the Traffic Study prepared for the Project, the segment of Pleasant Grove Boulevard contained within the Project Limits currently accommodates between 31,500 and 52,000 average daily traffic trips (Fehr & Peers 2022). Per Caltrans traffic counts, the segment of SR 65 traversing the Pleasant Grove Boulevard onramps currently accommodates an average daily traffic count of 100,000 vehicles (Caltrans 2021). Thus, Project construction would not result in a doubling of traffic, and therefore its contribution to existing traffic noise would not be perceptible. Additionally, it is noted that construction is temporary, and construction-related trips would cease upon completion of construction. For these reasons a less than significant impact would occur, and thus there would be **no new impact**.

4.13.2.3 Operational Traffic Noise

Future traffic noise levels on Pleasant Grove Boulevard were modeled based on traffic volumes identified by Fehr & Peers (2022). *Table 4.13-4* shows the calculated Pleasant Grove Boulevard noise levels under existing traffic levels compared to future traffic levels resulting from implementation of the Project. The calculated noise levels as a result of the Project at affected sensitive land uses are compared to the maximum allowable noise exposure standard promulgated in the Roseville General Plan Noise Element. As shown in *Table 4.13-2* above, existing exterior noise levels at the nearest noise-sensitive receptors already exceeds the conditionally acceptable ambient noise standard of 65 dBA L_{dn} without implementation of the Project. Thus, the increase in transportation-related noise associated with implementation of the proposed Project is evaluated against Roseville General Plan Noise Element Policy N1.5, which states that if existing noise levels already exceed noise compatibility standards without implementation of a proposed project, a project's contribution to ambient noise is considered significant in the case of the following:

- Where existing exterior noise is less than 60 dB, a ≥5 dBA increase in noise is significant.
- Where existing exterior noise is between 60 and 65 dBA, a ≥3 dB increase in noise is significant.
- Where existing exterior noise is greater than 65 dB a ≥1.5 dBA increase in noise is significant.

Table 4.13-4. Existing Plus Project Conditions Predicted Traffic Noise Levels

Roadway Segment	Ldn at 75 feet from Centerline of Roadway		Exceed Standard?
	Existing	Existing + Project	
Pleasant Grove Boulevard			
West of Woodcreek Oaks Boulevard	70.4 dBA	70.4 dBA	**No**
Between Woodcreek Oaks Boulevard & Birkdale Drive/Retreat Way	68.1 dBA	68.3 dBA	**No**
Between Birkdale Drive/Retreat Way & Country Club Drive	68.1 dBA	68.4 dBA	**No**
Between Country Club Drive & Laporte Drive/Hemingway Drive	68.4 dBA	68.6 dBA	**No**
Between Misty Wood Drive & Foothills Boulevard	68.8 dBA	68.8 dBA	**No**
East of Foothills Boulevard	69.8 dBA	69.8 dBA	**No**

Source: Traffic noise levels were calculated by ECORP Consulting, Inc. using the FHWA traffic noise prediction model in conjunction with the trip generation rate identified by Fehr & Peers (2022). Refer to Appendix H for traffic noise modeling assumptions and results.
Note: Standard ≥ 1.5 dBA
Surrounding Uses: Residential

As show in *Table 4.13-4*, predicted increases in traffic noise levels associated with the Project would be less than the City of Roseville significance threshold. A less than significant impact would occur, and thus there would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Result in generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, General Plan buildout construction of projects could cause a temporary, short-term disruptive vibration if it were to occur near sensitive receptors, and future development of new vibration-sensitive land uses could occur within vibration-generating areas (e.g., railroad). However, this vibration would be temporary, and the City does not anticipate very large-scale projects with extensive excavation and pile driving that would occur directly adjacent vibration-sensitive uses that would result in substantial disturbance or damage to adjacent structures.

The General Plan also anticipates the potential for vibration-sensitive land uses to be developed in areas with some amount of existing vibration today, such as the Union Pacific Railroad. Policy N1.10 requires all feasible measures necessary, as a part of proposed development and public infrastructure projects, to avoid structural damage to adjacent structures and avoid substantial annoyance for adjacent vibration-sensitive uses, consistent with California Department of Transportation and Federal Transit Agency guidance—guidance that is specifically designed to avoid annoyance to vibration-sensitive uses and structure damage. Thus, with implementation of all applicable General Plan Policy, impacts related to generation of excessive groundborne vibration or groundborne noise levels were found to be less than significant by the GPU EIR.

Construction Vibration

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the Project would be primarily associated with short-term construction-related activities. Construction on the Project Site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. It is noted that pile drivers would not be necessary during Project construction. Vibration decreases rapidly with distance and it is acknowledged that construction activities would occur throughout the Project Site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment at 25 feet distant are summarized in *Table 4.13-4*.

Table 4.13-4. Representative Vibration Source Levels for Construction Equipment

Equipment Type	Peak Particle Velocity at 25 Feet (inches/second)
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Hoe Ram	0.089
Jackhammer	0.035
Small Bulldozer/Tractor	0.003
Vibratory Roller	0.210

Source: Caltrans 2020; FTA 2018

The City of Roseville does not promulgate a numeric threshold regulating vibrations associated with construction. General Plan Policy N1.10 requires the inclusion of all feasible measures necessary, as a part

of proposed development and public infrastructure projects, to avoid substantial annoyance for adjacent vibration-sensitive uses consistent with California Department of Transportation and Federal Transit Agency guidance. Thus, the Caltrans (2020) recommended standard of 0.2 inch per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings. Consistent with FTA recommendations for calculating construction vibration, construction vibration was measured from the center of the Project Site (FTA 2018). The nearest structure of concern to the construction site, with regard to groundborne vibrations, are residences approximately 85 feet from the Project Site.

Based on the representative vibration levels presented for various construction equipment types in *Table 4.13-4* and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential Project construction vibration levels. The FTA provides the following equation:

$$[PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}].$$

Table 4.13-5 presents the expected Project related vibration levels at a distance of 85 feet.

Table 4.13-5. Onsite Construction Vibration Levels at 85 Feet

Receiver PPV Levels (inches/second)[1]					Peak Vibration	Threshold	Exceed Threshold
Large Bulldozer, Caisson Drilling, & Hoe Ram	Loaded Trucks	Jackhammer	Small Bulldozer	Vibratory Roller			
0.01	0.01	0.00	0.02	0.03	**0.03**	*0.2*	**No**

Notes: [1]Based on the Vibration Source Levels of Construction Equipment included on *Table 4.13-4* (FTA 2018). Distance to the nearest structure of concern is approximately 85 feet measured from Project Site boundary.

As shown in *Table 4.13-5*, vibration as a result of onsite construction activities on the Project Site would not exceed 0.2 PPV at the nearest structure. Thus, onsite Project construction would not exceed the recommended threshold and related Project impacts would be less than significant and there would be **no new impact**.

Operational Vibration

Project operations would not include the use of any stationary equipment that would result in excessive vibration levels. Therefore, the Project would not result in groundborne vibration impacts during operations and there would be **no new impact**.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 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?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, the Planning Area does not intersect with any military bases, special use airspaces, or low-level flight paths, and is not located in safety zones or noise contours associated with airfields or airports that are a concern for land use compatibility planning. The Planning Area is not located within 2 miles of a public or private airstrip. McClellan Airfield is located more than 5 miles south of the Planning Area, Lincoln Airport is located more than 7 miles north of the Planning Area, and Sacramento International Airport is located more than 15 miles west of the Planning Area. No noise standards are exceeded by the aircraft overflight because the City is located outside of the 60 dB CNEL contour for McClellan Airfield, Sacramento International Airport, and the Lincoln Airport; therefore, exposure to excessive noise levels from aircraft noise was considered less than significant by the GPU EIR.

As discussed above, the Project site is located approximately nine miles northeast of the Sacramento McClellan Airport and is located outside of the boundaries of the McClellan Airport land use plan. Since the site is outside the land use plan boundaries it is beyond the noise contours generated by airport operations. Thus, the proposed Project would not expose people working to implement the Project to excess airport noise levels. **No new impact** would occur.

4.13.3 Mitigation Measures

No significant impacts were identified; no mitigation measures are required.

4.14 Population and Housing

4.14.1 Environmental Setting

4.14.1.1 Population

The California Department of Finance (DOF) estimates that the City of Roseville's total population increased from 79,921 in 2000 to 118,788 in 2010, which is a 49-percent increase over this 10-year period (City of Roseville 2015, DOF 2012, 2019). As of January 1, 2019, DOF estimates that the population of Roseville was 139,643, which is a 15-percent increase from the 2010 population (DOF 2019). The City estimates that Roseville's population will increase to 198,000 persons with full buildout of the General Plan (City of Roseville 2017).

4.14.1.2 Housing

According to the DOF, the total number of housing units in the City of Roseville was 54,621 in 2019, with an average household size of 2.71 persons per household, compared to 2.57 in unincorporated Placer County (DOF 2019). Approximately 76 percent of these housing units were attached and detached single-family homes, compared to 78 percent countywide (DOF 2019). The City estimates that Roseville's 16 subareas will have a total of 75,200 housing units with full buildout of the General Plan (which includes 14 specific plan areas, the Infill area, and the North Industrial area).

Sacramento Area Council of Governments (SACOG) estimates that Roseville will have a total of 68,950 housing units in 2035, which is the planning horizon for the City's current General Plan (SACOG 2019). This includes the estimated number of housing units that could be constructed as part of the Creekview, Sierra Visa, and Amoruso Ranch, and Downtown Specific Plan Areas (SACOG 2019). SACOG's estimate of housing units in 2035 is approximately 8 percent less than the City's projections for buildout of the General Plan (75,200 housing units) (SACOG 2019).

4.14.2 Population and Housing (XIV) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) 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)?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, General Plan buildout would not directly induce unplanned growth. Furthermore, the majority of the vacant land adjacent to the City's boundaries are within existing adopted Specific Plans within Placer County, and are already planned for urbanization and development. Therefore, buildout consistent with the General Plan does not have the potential to indirectly induce substantial unplanned growth outside of the Planning Area. This impact was found to be less than significant.

The Project is a road widening transportation system CIP project that is proposed consistent with the General Plan and is intended to support General Plan buildout. Thus, the Project would not 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) and there would be **no new impact** an no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, the General Plan does not propose converting established residential areas to a nonresidential land use or redeveloping existing residential areas with new residences by removing existing dwelling units. Although General Plan buildout is not expected to result in substantial displacement of people or housing necessitating construction of housing elsewhere, if there is unanticipated displacement, the existing General Plan land use plan includes capacity for the construction of 22,300 residential dwelling units, which would provide housing for any displaced residents. Therefore, this impact was found to be less than significant.

The proposed Project is limited to road widening to support General Plan buildout and would not displace any existing housing or people. Thus, the Project would not displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere and there would be **no new impact**.

4.14.3 Mitigation Measures

No new significant impacts were identified, and no mitigation measures are required.

4.15 Public Services

4.15.1 Environmental Setting

The City of Roseville provides fire protection, law enforcement, and parks and recreation public services within the City limits. School services in Roseville are provided by the Roseville City School District, Eureka Union School District, Dry Creek Joint Elementary School District, Center Joint Unified School District, and Roseville Joint Union High School District. Refer to GPU EIR section 4.11.2 for a complete description of existing public services. The City of Roseville also provides public facilities, including buildings for general government services and other facilities (i.e., corporation yards) that support other public service functions.

4.15.2 Public Services (XV) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
Fire Protection?	☐	☐	☐	☒
Police Protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other Public Facilities?	☐	☐	☐	☒

4.15.2.1 Fire and Police Protection

According to the GPU EIR, General Plan buildout would result in additional population and structures within the Planning Area that would create additional demands for fire and police protection services over current demand levels. However, the addition of new staff would not result in the need for new or physically altered fire or police protection facilities to maintain acceptable response times or other performance objectives, the construction of which could potentially have adverse impacts on the physical environment. This impact was found to be less than significant.

Proposed improvements would require elimination of the existing allowed left turn movement onto Pleasant Grove Boulevard from the following three side street stop-sign-controlled intersections:

- Pleasant Grove Boulevard & Birkdale Drive/Retreat Way
- Pleasant Grove Boulevard & Laporte Drive/Hemingway Drive
- Pleasant Grove Boulevard & Misty Wood Drive

As shown in *Figures 2-2 and 2-3*, existing left-turn and through movements from these side streets would be restricted post Project by a center median. The center median improvements conform with City Standards prohibiting left turns or through movements from side streets across six-lane roadways. The proposed improvements are in conformance with City Standards, which account for emergency vehicle accessibility, and therefore would not result in new impacts to police or fire protection services.

The Project is primarily limited to road widening and as discussed above would be implemented consistent with all adopted General Plan policy and implementation measures. Thus, the Project would not 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 and police protection services. There would be **no new impact**.

4.15.2.2 Schools

According to the GPU EIR, City buildout would accommodate construction of between 20,000 to 25,000 housing units that generate approximately 10,000 additional K-12 students. The impacts of construction and operation of school facilities was analyzed throughout the GPU EIR and were found to be mitigated by adopted policies implementation measures which, where necessary, would reduce or avoid impacts. Thus, the impact was found to be less than significant.

The proposed Project is limited to road widening and would be implemented consistent with all adopted General Plan policy and implementation measures. The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable school service levels. There would be **no new impact**.

4.15.2.3 Parks

According to the GPU EIR, General Plan buildout would result in the development of new residences in Roseville, which would add new population and increase demand for new and existing parks, as well as recreation facilities. This additional population would be likely to use existing park facilities potentially resulting in the accelerated physical deterioration of existing facilities. Buildout of the General Plan could accommodate approximately 1,100 additional acres of developed parkland, the construction of which could result in adverse impacts on the physical environment. However, the impacts of construction and operation of these facilities has been analyzed in the GPU EIR, and within EIRs for each of the City's Specific Plans. The General Plan includes mitigating policies and measures, where necessary, that would reduce or avoid impacts. In addition, dedication of parkland or payment of in-lieu fees could also be used by the City to improve, expand, and maintain existing City parks to ensure that accelerated deterioration does not occur. Thus, this impact was found to be less than significant in the GPU EIR.

The proposed Project is limited to road widening and would be implemented consistent with all adopted General Plan policy and implementation measures. Thus, the Project would not generate new population or result in substantial adverse physical impacts associated with the provision of new or physically altered park facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable park service levels. There would be **no new impact**.

4.15.2.4 Other Public Facilities

According to the GPU EIR, as the City's population increases and demographics shift, continual assessment will be required to determine whether other public facilities require expansion. Existing adopted General Plan policy and implementation measures would ensure adequate provision of other public facilities as the City grows. There are no additional significant impacts related to construction of other public facilities beyond the construction impacts that are analyzed throughout the GPU EIR. As appropriate, future construction plans would be subject to project-level CEQA analysis and mitigation, further ensuring compliance with regulations and allowing additional opportunities for mitigation, if necessary. Therefore, the General Plan FEIR found this impact to be less than significant.

The proposed Project is limited to road widening and would be implemented consistent with all adopted General Plan policy and implementation measures. Thus, the Project would not generate new population or result in substantial adverse physical impacts associated with the provision or construction of other public facilities needed to serve the City's growing population, the construction of which could cause significant environmental impacts, in order to maintain acceptable government service levels. There would be **no new impact**.

4.15.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.16 Recreation

4.16.1 Environmental Setting

The City has defined park lands to include public developed parks, recreational open space, and joint-use park school facilities. The City has an adopted standard of 9 acres of park land per 1,000 residents, which has historically been met through the dedication of parkland as a part of development. As of 2018, the City had approximately six acres of developed parkland per 1,000 residents. This is because, although all new development in the City is required to dedicate sufficient land to meet the City's parkland standard, portions of the City were developed prior to the adoption of this standard.

4.16.2 Recreation (XVI) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) 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 New Impact

According to the GPU EIR, General Plan buildout would result in the development of new residences in Roseville, which would add new population and increase demand for new and existing parks, as well as recreation facilities. This additional population would be likely to use existing park facilities potentially resulting in the accelerated physical deterioration of existing facilities. Buildout of the General Plan could accommodate approximately 1,100 additional acres of developed parkland, the construction of which could result in adverse impacts on the physical environment. However, the impacts of construction and operation of these facilities has been analyzed in the GPU EIR, and within EIRs for each of the City's Specific Plans. The General Plan includes mitigating policies and measures, where necessary, that would reduce or avoid impacts. In addition, dedication of parkland or payment of in-lieu fees could also be used by the City to improve, expand, and maintain existing City parks to ensure that accelerated deterioration does not occur. Thus, this impact was found to be less than significant in the GPU EIR.

The proposed Project is limited to road widening, would not increase City population, and would be implemented consistent with all adopted General Plan policy and implementation measures. Thus, the Project would not 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. There would be **no new impact**.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, General Plan buildout would result in the development of new residences in Roseville, which would add new population and increase demand for new and existing park and recreation facilities. Buildout of the General Plan could accommodate approximately 1,100 additional acres of developed parkland, the construction of which could result in adverse impacts on the physical environment. However, the impacts of construction and operation of these facilities has been analyzed in the GPU EIR, and within EIRs for each of the City's Specific Plans. The adopted General Plan includes mitigating policies and measures, where necessary, that would reduce or avoid impacts resulting from recreational facility development. This includes the payment of in-lieu fees which can be used for new park construction. Thus, this impact was found to be less than significant in the GPU EIR.

The proposed Project is limited to road widening and would be implemented consistent with all adopted General Plan policy and implementation measures. Thus, the Project would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. There would be **no new impact**.

4.16.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.17 Transportation

This section is based on information and analysis contained in the Pleasant Grove Boulevard Widening Traffic Study (Traffic Study) prepared by Fehr & Peers (March 2022.) (IS/MND Appendix H) and the City of Roseville GPU EIR (City of Roseville. August 2020).

The Traffic Study documents existing conditions, provides design recommendations for proposed widening improvements based on Project level queuing analysis, and confirms traffic impacts of the Project with respect to adopted General Plan policy addressing intersection LOS. With implementation of Senate Bill 743 in 2018, Vehicle Miles Travelled (VMT) replaced LOS as the significance criterion to be applied when analyzing transportation impacts under CEQA. Accordingly, while the LOS results reported herein may be compared to the City's LOS policy to evaluate performance, LOS results not meeting the City's LOS policy would not represent a significant transportation impact under CEQA.

4.17.1 Environmental Setting

As discussed above in Section 2.0 Project Description, the Project would widen Pleasant Grove Boulevard from four to six travel lanes, configured as three eastbound and three westbound lanes, from the existing six-lane section east of Foothills Boulevard westerly through Woodcreek Oaks Boulevard. The Project includes conforming adjustments to intersections, turn lanes, and signal operations to optimize traffic flow within the Project limits.

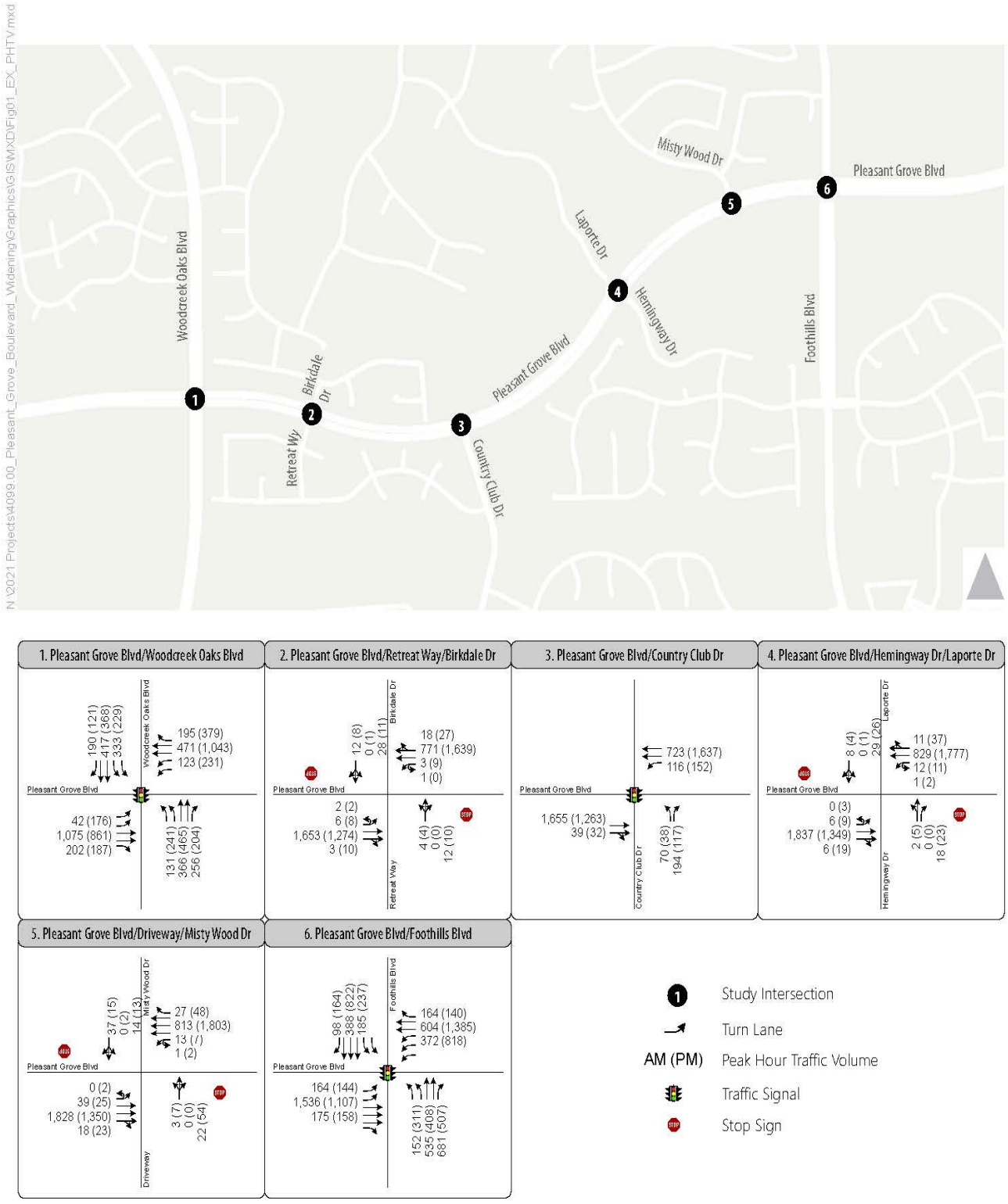
4.17.1.1 Study Area

Potential project impacts are analyzed at six study intersections along the Project segment of Pleasant Grove Boulevard between Foothills Boulevard and Woodcreek Oaks Boulevard (*Figure 4.17-1*). The study area includes three signalized intersections and three unsignalized intersections along Pleasant Grove Boulevard.

4.17.1.2 Analysis Scenarios

The Traffic Study analyzed the following scenarios:

- Existing Conditions - represents the existing setting upon which project-specific impacts are judged.
- Existing Plus Project (EPP) Conditions - represents existing conditions and volumes plus the widening of Pleasant Grove Boulevard.



Source: Fehr Peers

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 4-17.1. Peak Hour Traffic Volumes and Lane Configurations - Existing Conditions
2021-260 Pleasant Grove Boulevard Widening Project

- Cumulative No Project (CNP) (2035) Conditions – assumes planned City of Roseville capital improvements and development of numerous reasonable and foreseeable land uses in the study area and additional land uses and roadway network improvements, but no widening of Pleasant Grove Boulevard.
- Cumulative Plus Project (CPP) (2035) Conditions – assumes planned City of Roseville capital improvements and development of numerous reasonable and foreseeable land uses in the study area and additional land uses and roadway network improvements, which already includes the proposed widening of Pleasant Grove Boulevard.

4.17.1.3 Analysis Methods

Level of Service

Level of Service (LOS) is a qualitative measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. In general, LOS A represents free-flow conditions with no congestion, and LOS F represents severe congestion and delay under stop-and-go conditions. *Table 4.17-1* provides the City's adopted intersection LOS criteria. LOS results reported are determined using the procedures and methodology contained in the Highway Capacity Manual 6th Edition.

To provide consistency with other studies, the Traffic Study used the deterministic Synchro software program to analyze all study intersections except Pleasant Grove Boulevard/Foothills Boulevard for PM peak hour conditions. This intersection was analyzed using the SimTraffic 11 micro-simulation model due to its level of congestion and coordinated traffic signal progression.

Table 4.17-1. Intersection LOS Criteria

Level of Service	Description (for signalized intersections)	Average Delay (Seconds/Vehicle)	
		Signalized	Unsignalized
A	Operations with very low delay occurring with favorable traffic signal progression and/or short cycle lengths.	< 10.0	< 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0	> 10.0 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0	> 15.0 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35.0 to 55.0	> 25.0 to 35.0

Table 4.17-1. Intersection LOS Criteria

Level of Service	Description (for signalized intersections)	Average Delay (Seconds/Vehicle)	
		Signalized	Unsignalized
E	Operations with high delay values indicating poor progression, and long cycle lengths. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	> 55.0 to 80.0	> 35.0 to 50.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0	> 50.0

Note: LOS = level of service; V/C ratio = volume-to-capacity ratio
Source: Transportation Research Board, 2016.

Queuing

Queuing was evaluated for plus-project conditions (EPP and CPP) using the SimTraffic 11 micro-simulation model to provide input for design decisions. All reported queuing results represent the average maximum queues for 10 simulation runs.

Average Daily Traffic (ADT)

Average daily traffic (ADT) is the sum of all vehicles over a 24-hour period. Comparison of No Project and Plus Project ADT can provide understanding of the overall impacts of a project on the transportation system. ADT is typically reported for a mid-week condition (Tuesday, Wednesday, or Thursday).

Note that while the City of Roseville reports ADT on its roadways, the City does not use ADT-based LOS as a metric. The City evaluates LOS on signalized intersections because intersections dictate overall operations of the City's roadway system.

4.17.1.4 Performance Targets

The City of Roseville's level of service policy per the City of Roseville 2035 General Plan (August 2020) is:

> Maintain a LOS "C" standard at a minimum of 70 percent of all signalized intersections and roadway segments in the City during the a.m. and p.m. peak hours. Exceptions to the LOS "C" standard may be considered where improvements required to achieve the standard would adversely affect pedestrian, bicycle, or transit access, and where feasible LOS improvements and travel-demand-reducing strategies have been exhausted.

As discussed above, while the LOS results reported herein may be compared to the City's LOS policy to evaluate performance, LOS results not meeting the City's LOS policy would not represent a significant Transportation impact under CEQA.

4.17.1.5 Existing Conditions

This section presents Existing conditions within the study area. Existing conditions are generally reflective of travel prior to the onset of the COVID-19 pandemic.

Within the study area, Pleasant Grove Boulevard is primarily a four-lane roadway with a posted speed limit of 45 miles per hour. At the eastern end of the study area, Pleasant Grove Boulevard widens to a six-lane roadway east of Foothills Boulevard.

There are existing Class II bike lanes (on-street with appropriate signage and pavement markings) along both sides of Pleasant Grove Boulevard, which will be maintained by the project.

There are existing City Local "Route M" bus stops along both sides of Pleasant Grove Boulevard, which will be unchanged by the project. These are located:

- West of Woodcreek Oaks Boulevard (both eastbound and westbound),
- East of Woodcreek Oaks Boulevard (eastbound only),
- East of Country Club Drive (eastbound only),
- West of Foothills Boulevard (both eastbound and westbound), and
- East of Foothills Boulevard (eastbound only)

Traffic Volumes

For the three signalized study intersections, the Traffic Study utilized traffic count data (collected in February 2020) from the Transportation Impact Study for the Roseville Housing Element Update (2021). For the three unsignalized study intersections, it was necessary to collect counts in October 2021 to provide side-street volume data. Through traffic volumes were then balanced through the unsignalized locations using the higher pre-COVID volumes from the signalized intersections, such that the analysis should reflect pre-COVID conditions.

Figure 4.17-1 shows Existing AM and PM peak hour turning volumes and lane configurations at the study intersections.

Average Daily Traffic (ADT)

Table 4.17-2 shows the existing ADT at multiple locations along Pleasant Grove Boulevard collected by the City's traffic signal loop detectors over the same days as the turning movement counts (February 2020).

Table 4.17-2: ADT – Existing Conditions	
Location on Pleasant Grove Boulevard	**Existing (2020) Daily Volume**
West of Woodcreek Oaks Boulevard	31,500
Woodcreek Oaks Boulevard to Birkdale Drive/Retreat Way	36,600
Birkdale Drive/Retreat Way to Country Club Drive	37,100
Country Club Drive to Laporte Drive/Hemingway Drive	39,400
Misty Wood Drive to Foothills Boulevard	41,200
East of Foothills Boulevard	52,000

ADT values are rounded to the nearest 100 vehicles.
Source: Fehr & Peers 2021.

Level of Service (LOS)

Table 4.17-3 displays Existing AM and PM peak hour operations at the study intersections along Pleasant Grove Boulevard. Details are included in the Traffic Study Technical Appendix (see IS/MND Appendix H).

The two primary intersections at each end of the corridor operate at LOS D or E during peak hours. Delays are also high for through and left-turns from the side-street stop-controlled intersections.

At Foothills Boulevard, the overall average intersection delay is mostly influenced by eastbound and westbound through and left-turn delays.

Table 4.17-3. Level of Service – Existing Conditions					
Intersection		**Control Type**	**Peak Hour**	**Delay [1][2]**	**LOS**
1	Pleasant Grove Boulevard & Woodcreek Oaks Boulevard	Signal	AM	43	D
			PM	35	D
2	Pleasant Grove Boulevard & Birkdale Drive /Retreat Way	SSSC	AM	2 (79)	A (F)
			PM	2 (268)	A (F)
3	Pleasant Grove Boulevard & Country Club Drive	Signal	AM	10	B
			PM	20	B
4	Pleasant Grove Boulevard & Laporte Drive /Hemingway Drive	SSSC	AM	2 (204)	A (F)
			PM	10 (>300)	B (F)
5	Pleasant Grove Boulevard & Misty Wood Drive	SSSC	AM	1 (37)	A (E)
			PM	4 (278)	A (F)
6	Pleasant Grove Boulevard & Foothills Boulevard	Signal	AM	44	D
			PM [3,4]	58	E

SSSC = side street stop-sign-controlled intersection; LOS = level of service
Excessive delays greater than 300 seconds are reported as ">300" seconds due to model's inability to produce reasonable delay estimates under high volume, near-capacity conditions

Table 4.17-3. Level of Service – Existing Conditions				
Intersection	**Control Type**	**Peak Hour**	**Delay [1][2]**	**LOS**

Notes:
1. For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side street stop-sign-controlled intersections, intersection delay is reported in seconds per vehicle for the overall intersection and (worst-case) movement.
2. Unless otherwise noted, intersection delay is calculated based on the procedures and methodology contained in the Highway Capacity Manual 6th Edition (Transportation Research Board, 2016).
3. LOS analysis was completed using the SimTraffic 11 micro-simulation model
4. Existing PM LOS result was sourced from the Transportation Impact Study for the Roseville Housing Element Update (2021)

Source: Fehr & Peers 2021

4.17.1.6 Existing Plus Project Conditions

This section analyzes the impacts of the proposed Project under EPP Conditions, which represents Existing conditions with the addition of the Project as described in Section 2.0 Project Description.

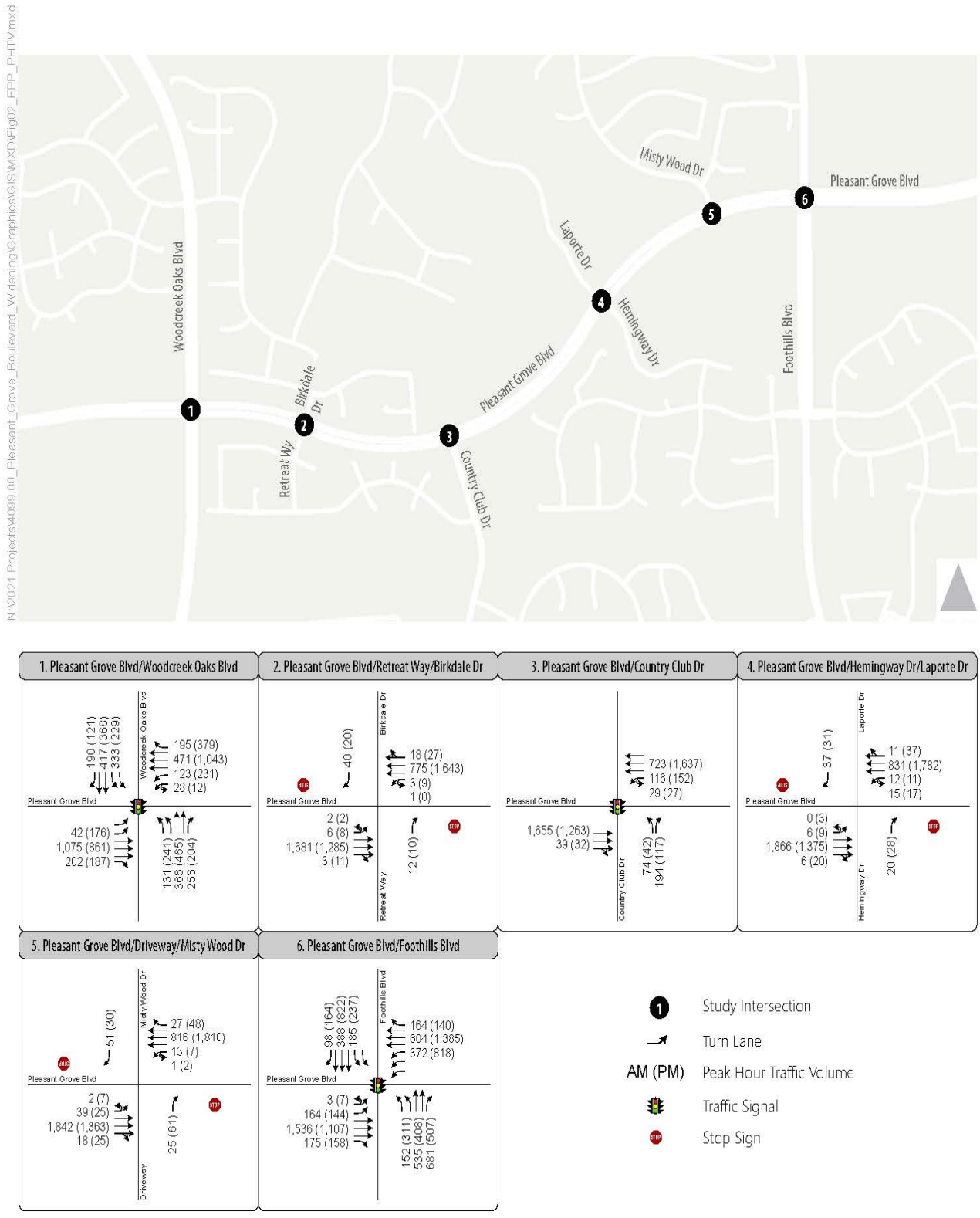
Traffic Volumes

To isolate the effects of the Project without any induced travel demand, the EPP turning traffic volumes used in this analysis are representative of the Existing volumes applied to the proposed project geometry.

Figure 4.17-2 shows the EPP AM and PM peak hour turning volumes and lane configurations at the study intersections. As shown, under the proposed Project, movements at the three existing side street stop-sign-controlled intersections would be restricted to right-turns only. Vehicles previously traveling straight or turning left were instead assumed to turn right and perform a U-turn at a nearby downstream intersection.

Level of Service

Table 4.17-4 displays EPP AM and PM peak hour operations at the study intersections along Pleasant Grove Boulevard compared to Existing Conditions. Details are included in the Traffic Study Technical Appendix (see IS/MND Appendix H). The analysis utilized existing traffic signal timing (cycle lengths, splits, and coordination offsets).



Source: Fehr Peers

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Figure 4-17.2. Peak Hour Traffic Volumes and Lane Configurations - Existing Plus Project Conditions

2021-260 Pleasant Grove Boulevard Widening Project

Table4.17-4: Level of Service – Existing Plus Project Conditions

	Intersection	Control Type	Peak Hour	Existing		Existing Plus Project	
				Delay[1,2]	LOS	Delay[1,2]	LOS
1	Pleasant Grove Boulevard & Woodcreek Oaks Boulevard	Signal	AM	43	D	37	D
			PM	35	D	32	C
2	Pleasant Grove Boulevard & Birkdale Drive/Retreat Way	SSSC	AM	2 (79)	A (F)	0 (26)	A (D)
			PM	2 (268)	A (F)	0 (26)	A (D)
3	Pleasant Grove Boulevard & Country Club Drive	Signal	AM	10	B	8	A
			PM	20	B	9	A
4	Pleasant Grove Boulevard & Laporte Dr/Hemingway Drive	SSSC	AM	2 (204)	A (F)	1 (36)	A (E)
			PM	10 (>300)	B (F)	1 (30)	A (D)
5	Pleasant Grove Boulevard & Misty Wood Drive	SSSC	AM	1 (37)	A (E)	1 (32)	A (D)
			PM	4 (278)	A (F)	1 (36)	A (E)
6	Pleasant Grove Boulevard & Foothills Boulevard	Signal	AM	44	D	43	D
			PM [3,4]	58	E	48	D

SSSC = side street stop-sign-controlled intersection; LOS = level of service
Excessive delays greater than 300 seconds are reported as ">300" seconds due to model's inability to produce reasonable delay estimates under high volume, near-capacity conditions
Values shown in **bold** indicate a degradation from above, to below LOS C
Notes:

1. For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side street stop-sign-controlled intersection, intersection delay is reported in seconds per vehicle for the overall intersection and (worst-case) movement.
2. Unless otherwise noted, intersection delay is calculated based on the procedures and methodology contained in the Highway Capacity Manual 6th Edition (Transportation Research Board, 2016).
3. LOS analysis was completed using the SimTraffic 11 micro-simulation model
4. Existing PM LOS result was sourced from the Transportation Impact Study for the Roseville Housing Element Update (2021)

Source: Fehr & Peers 2022

Results show reductions in overall delay at the three signalized intersections. As these results do not incorporate any induced travel demand on the study segment due to the widening, delay would be expected to increase over time as motorists begin to utilize the additional capacity.

The reductions in delay for the worst-case movements at the side-street stop-controlled intersections shown under the EPP Conditions can primarily be attributed to the removal of outbound through and left-turn movements.

4.17.1.7 Cumulative (2035) No Project Conditions

This section analyzes the impacts of the proposed Project under CNP Conditions, which assumes planned City of Roseville capital improvements and development of numerous reasonable and foreseeable land uses in the study area. This scenario assumes no widening of Pleasant Grove Boulevard.

Traffic Volumes

The City of Roseville Cumulative (2035) travel demand model already includes this Project's widening of Pleasant Grove Boulevard. Therefore, to derive CNP forecasts, the widening of Pleasant Grove Boulevard was *removed* from the model and forecasts were regenerated.

Figure 4.17-3 shows the CNP AM and PM peak hour turning volumes and lane configurations at the study intersections. A third northbound through lane and a fourth southbound through lane are assumed at the Pleasant Grove Boulevard/Foothills Boulevard intersection consistent with the City's Capital Improvement Program.

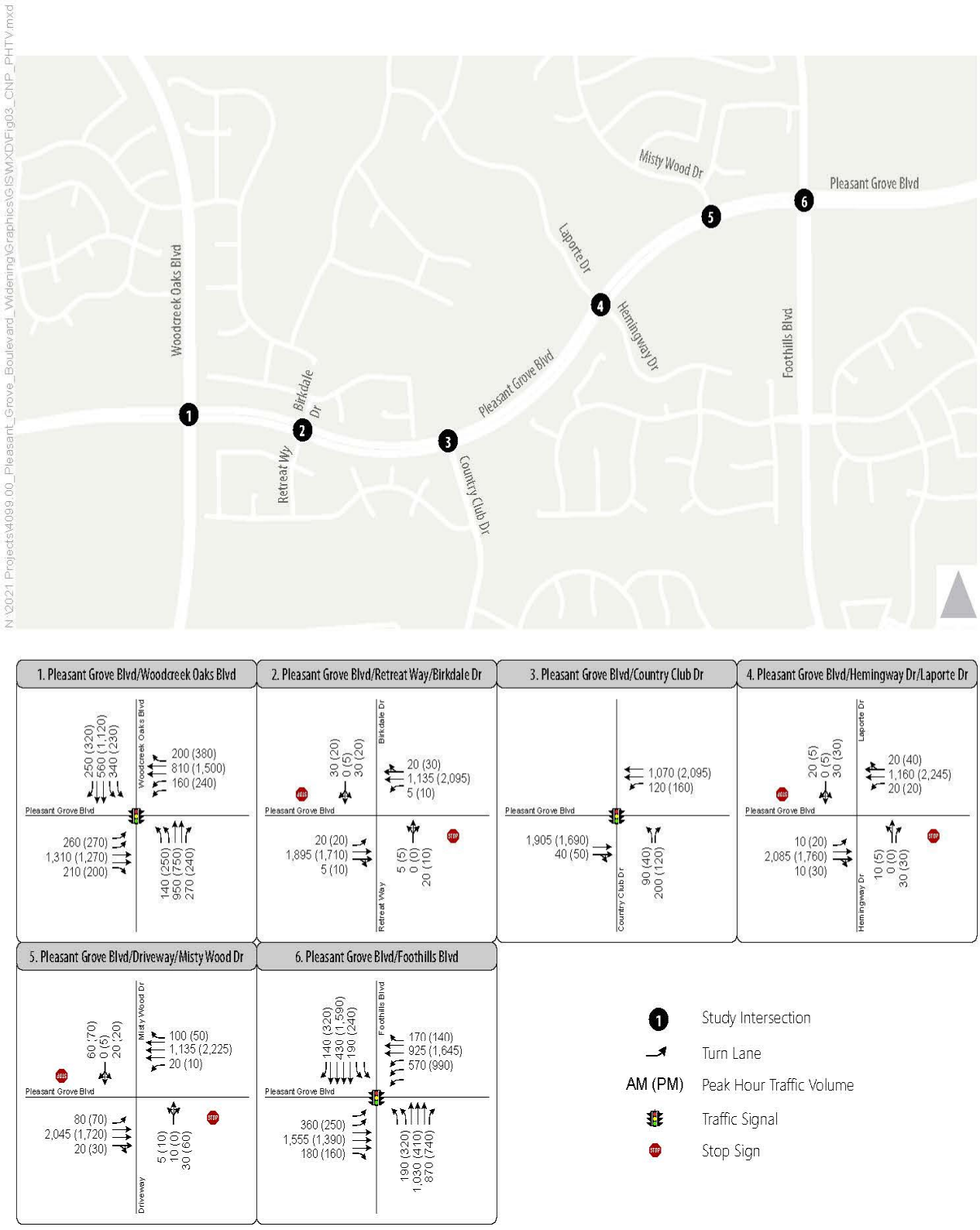
Average Daily Traffic

Table 4.17-5 shows the ADT calculated for CNP Conditions and compared to Existing ADT measurements.

Table 4.17-5. ADT – Cumulative No Project Conditions

Location on Pleasant Grove Boulevard	Existing (2020) Daily Volume	Cumulative No Project Daily Volume	Growth
West of Woodcreek Oaks Boulevard	31,500	41,900	+10,400
Woodcreek Oaks Boulevard to Birkdale Drive/Retreat Way	36,600	39,900	+3,300
Birkdale Dr/Retreat Way to Country Club Drive	37,100	39,600	+2,500
Country Club Drive to Laporte Drive/Hemingway Drive	39,400	44,800	+5,400
Misty Wood Drive to Foothills Boulevard	41,200	43,500	+2,300
East of Foothills Boulevard	52,000	54,000	+2,000

ADT values are rounded to the nearest 100 vehicles.
Source: Fehr & Peers 2021



Source: Fehr Peers

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Figure 4-17.3. Peak Hour Traffic Volumes and Lane Configurations - Cumulative No Project Conditions

2021-260 Pleasant Grove Boulevard Widening Project

In review of the model output, increases between Existing to CNP conditions on the order of 10,000 ADT or more were observed on parallel arterials. In contrast, modest traffic growth in the range of 1,000 to 3,000 ADT is forecast on Pleasant Grove Boulevard between Woodcreek Oaks Boulevard and Foothills Boulevard. This indicates that without the project, the roadway would lack the capacity for a proportional increase in traffic (similar to the parallel roadways) under Cumulative conditions.

Level of Service

Table4.17-6 displays CNP AM and PM peak hour operations at the study intersections along Pleasant Grove Boulevard compared to Existing Conditions. Details are included in the Traffic Report Technical Appendix (see IS/MND Appendix H). The three traffic signals were coordinated with a cycle length of 150 seconds (AM) and 160 seconds (PM).

Table 4.17-6: Level of Service – Cumulative No Project Conditions

	Intersection	Control Type	Peak Hour	Existing		Cumulative No Project	
				Delay [1,2]	LOS	Delay [1,2]	LOS
1	Pleasant Grove Boulevard & Woodcreek Oaks Boulevard	Signal	AM	43	D	50	D
			PM	35	D	57	E
2	Pleasant Grove Boulevard & Birkdale Drive /Retreat Way	SSSC	AM	2 (79)	A (F)	21 (>300)	C (F)
			PM	2 (268)	A (F)	41 (>300)	E (F)
3	Pleasant Grove Boulevard & Country Club Drive	Signal	AM	10	B	17	B
			PM	20	B	14	B
4	Pleasant Grove Boulevard & Laporte Drive /Hemingway Drive	SSSC	AM	2 (204)	A (F)	32 (>300)	D (F)
			PM	10 (>300)	B (F)	117 (>300)	F (F)
5	Pleasant Grove Boulevard & Misty Wood Drive	SSSC	AM	1 (37)	A (E)	90 (>300)	F (F)
			PM	4 (278)	A (F)	145 (>300)	F (F)
6	Pleasant Grove Boulevard & Foothills Boulevard	Signal	AM	44	D	57	E
			PM [3,4]	58	E	135	F

SSSC = side street stop-sign-controlled intersection; LOS = level of service
Excessive delays of greater than 300 seconds are reported as ">300" seconds due to model's inability to produce reasonable delay estimates under high volume, near-capacity conditions
Values shown in **bold** indicate a degradation from above, to below LOS C
Notes:

1. For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side street stop-sign-controlled intersections, intersection delay is reported in seconds per vehicle for the overall intersection and (worst-case) movement.
2. Unless otherwise noted, intersection delay is calculated based on the procedures and methodology contained in the Highway Capacity Manual 6th Edition (Transportation Research Board, 2016).
3. LOS analysis was completed using the SimTraffic 11 micro-simulation model.
4. Existing PM LOS result was sourced from the Transportation Impact Study for the Roseville Housing Element Update (2021).

Source: Fehr & Peers 2022.

As shown, the increased demand under the Cumulative scenario would push most study intersections into LOS E or worse without the project creating conditions inconsistent with General Plan policy.

4.17.1.8 Cumulative (2035) Plus Project Conditions

This section presents the analysis of Project impacts under Cumulative Plus Projects (2035) (CPP) conditions.

Traffic Volumes

Forecasts for CPP conditions were derived from the Transportation Impact Study for the Roseville Housing Element Update (2021), as the cumulative scenario from that analysis is consistent with the CPP scenario for the proposed Pleasant Grove Boulevard Widening Project.

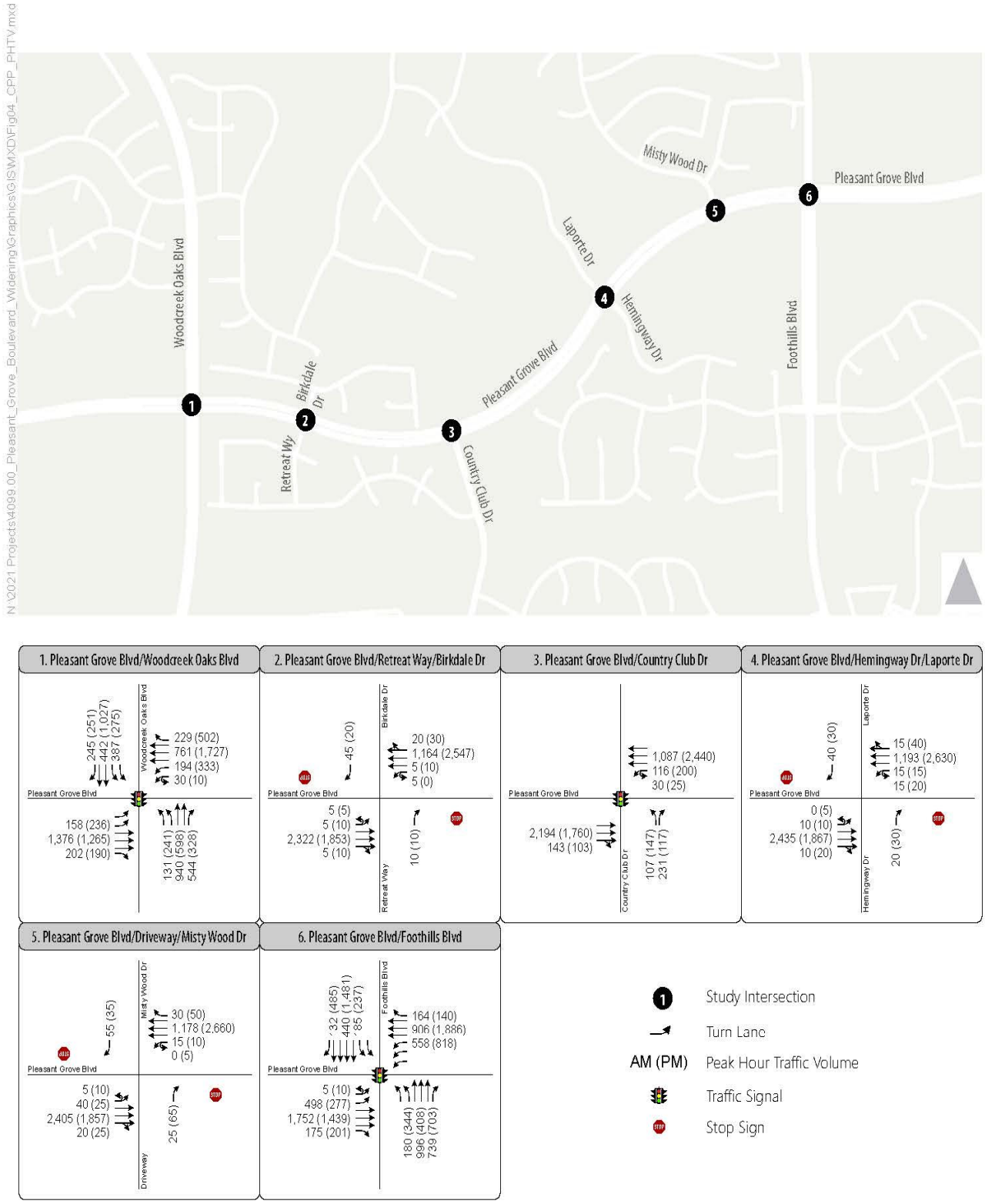
Figure 4.17-4 shows the CPP AM and PM peak hour turning volumes and lane configurations at the study intersections. While not included in the Project, a third northbound through lane and a fourth southbound through lane are assumed at the Pleasant Grove Boulevard/Foothills Boulevard intersection consistent with the City's Capital Improvement Program.

A comparison of *Figures 4.17-3* to *4.17-4* indicates the following:

- The widening of Pleasant Grove Boulevard would increase eastbound AM peak hour trips by 430 vehicles and increase westbound PM peak hour trips by about 450 vehicles on the segment between Woodcreek Oaks Boulevard and Country Club Drive.
- Under Existing Plus Project Conditions, much of the increase on this segment was due to added traffic from Country Club Drive. However, under cumulative conditions, the increase is not associated with added traffic from Country Club Drive, but rather overall increases in through travel throughout the corridor. Note that the large increases in eastbound right-turns and northbound left-turns at Country Club Drive do not occur under Cumulative Plus Project conditions, likely because Pleasant Grove Boulevard is near capacity (from a model volume-to-capacity perspective) under cumulative conditions; hence, the model does not route traffic from Country Club Drive onto it.

Average Daily Traffic

Table 4.17-7 shows the ADT calculated for CPP Conditions as compared to CNP conditions.



Source: Fehr Peers

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Figure 4-17.4. Peak Hour Traffic Volumes and Lane Configurations - Cumulative Plus Project Conditions

Table 4.17-7. ADT – Cumulative Plus Project Conditions			
Location on Pleasant Grove Boulevard	**Cumulative No Project Daily Volume**	**Cumulative Plus Project Daily Volume**	**Project Delta**
West of Woodcreek Oaks Boulevard	41,900	42,900	+1,000
Woodcreek Oaks Boulevard to Birkdale Drive/Retreat Way	39,900	50,800	+10,900
Birkdale Drive /Retreat Way to Country Club Drive	39,600	50,600	+11,000
Country Club Drive to Laporte Drive /Hemingway Drive	44,800	53,100	+8,300
Misty Wood Drive to Foothills Boulevard	43,500	52,500	+9,000
East of Foothills Boulevard	54,000	55,600	+1,600

ADT values are rounded to the nearest 100 vehicles.
Source: Fehr & Peers, 2021.

Level of Service

Table4.17-8 displays Cumulative (2035) AM and PM peak hour operations at the study intersections along Pleasant Grove Boulevard under "Plus Project" conditions compared to "No Project" Conditions. Details are included in the Traffic Study Technical Appendix (see IS/MND Appendix H). For this analysis, the three traffic signals were coordinated with a cycle length of 150 seconds (AM) and 160 seconds (PM).

Table 4.17-8. Level of Service – Cumulative Plus Project Conditions							
Intersection		**Control Type**	**Peak Hour**	**Cumulative No Project**		**Cumulative Plus Project**	
				Delay [1,2]	**LOS**	**Delay [1,2]**	**LOS**
1	Pleasant Grove Boulevard & Woodcreek Oaks Boulevard	Signal	AM	50	D	49	D
			PM	57	E	49	D
2	Pleasant Grove Boulevard & Birkdale Drive/Retreat Way	SSSC	AM	21 (>300)	C (F)	1 (53)	A (F)
			PM	41 (>300)	E (F)	1 (65)	A (F)
3	Pleasant Grove Boulevard & Country Club Drive	Signal	AM	17	B	12	B
			PM	14	B	12	B
4	Pleasant Grove Boulevard & Laporte Drive /Hemingway Drive	SSSC	AM	32 (>300)	D (F)	1 (84)	A (F)
			PM	117 (>300)	F (F)	1 (76)	A (F)
5	Pleasant Grove Boulevard & Misty Wood Drive	SSSC	AM	90 (>300)	F (F)	1 (65)	A (F)
			PM	145 (>300)	F (F)	2 (123)	A (F)

Table 4.17-8. Level of Service – Cumulative Plus Project Conditions

	Intersection	Control Type	Peak Hour	Cumulative No Project		Cumulative Plus Project	
				Delay [1,2]	LOS	Delay [1,2]	LOS
6	Pleasant Grove Boulevard & Foothills Blvd	Signal	AM	57	E	55	D
			PM [3,4]	135	F	85	F

SSSC = side street stop-sign-controlled intersection; LOS = Level of Service
Excessive delays of greater than 300 seconds are reported as ">300" seconds due to model's inability to produce reasonable delay estimates under high volume, near-capacity conditions
Values shown in **bold** indicate a degradation from above, to below LOS C
Notes:

1. For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side street stop-sign-controlled intersections, intersection delay is reported in seconds per vehicle for the overall intersection and (worst-case) movement.
2. Unless otherwise noted, intersection delay is calculated based on the procedures and methodology contained in the Highway Capacity Manual 6th Edition (Transportation Research Board, 2016).
3. LOS analysis was completed using the SimTraffic 11 micro-simulation model.

Source: Fehr & Peers, 2022.

The project would reduce Cumulative delay at all study intersections. However, despite the improvement, the Woodcreek Oaks Boulevard traffic signal would operate at LOS D during the AM and PM peak hours and the Foothills Boulevard traffic signal would operate at LOS D and LOS F for the AM and PM peak hours.

While the project would increase capacity at the Pleasant Grove Boulevard/Foothills Boulevard intersection by the addition of a westbound through lane, the travel on Pleasant Grove Boulevard induced by the widening would also increase demand by approximately 400 vehicles in the AM Peak Hour. Over 300 of these vehicles would be added to the eastbound approach, which already widens to three through lanes at the intersection. Under PM peak conditions, overall intersection delay remains high (85 seconds), although it would be an improvement compared to the CNP predicted delay. Note that the fourth southbound through lane assumed under the cumulative scenario enabled a large reduction in overall delay.

The reduction in delay from CNP to CPP for the SSSC intersections is primarily due to the prohibition of outbound through and left-turn movements.

4.17.2 Transportation (XVII) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒

No New Impact

The GPU EIR concluded that transportation network changes called for by the General Plan Circulation Element, and land use and infrastructure changes resulting from buildout of the General Plan, would not conflict with the City's circulation system policy of at least 70 percent of signalized intersections achieving LOS C or better during the a.m. and p.m. peak hours.

As previously discussed, with the implementation of Senate Bill 743 in 2018, VMT replaced LOS as the significance criterion to be applied when analyzing the transportation impacts of a proposed land use or infrastructure project under CEQA. Accordingly, while LOS results reported in the GPU EIR may be compared to the City's LOS policy to evaluate performance for informational purposes, LOS results not meeting the City's LOS policy would not represent a significant impact under CEQA. Thus, according to the GPU EIR, planned City buildout consistent with the General Plan, would not conflict with adopted circulation system LOS policy.

As shown in **Tables 4.17-4 and 4.17-8**, and as discussed above and confirmed in the Traffic Study, under both EPP and CPP conditions, none of the study area intersections currently operating at or above LOS C would degrade below LOS C and thereby cause less than 70 percent of signalized intersections within the City from achieving LOS C or better during the a.m. and p.m. peak hours. As such, the Project is consistent with adopted City-wide LOS policy.

While consistent with City LOS policy for signalized intersections, only modest LOS improvements are expected within the Project limits following Project implementation under EPP conditions. This is primarily due to existing and projected high traffic volumes. For example, as shown in Table 4.17-4, of the three study area signalized intersections, only the Pleasant Grove Boulevard/Country Club Drive intersection would experience improved LOS under EPP conditions (improving from existing LOS B to LOS A in both the AM and PM Peak Hours). The Pleasant Grove Boulevard/Woodcreek Oaks Boulevard intersection would similarly experience improved LOS during the PM Peak Hour (improving from existing LOS D to LOS C), however the AM Peak Hour would remain at LOS D (with a three second delay improvement). The Pleasant Grove Boulevard/Foothills Boulevard intersection would similarly maintain EPP LOS D during the AM Peak Hour, however it would degrade from LOS E to D during the PM Peak Hour.

Under CPP conditions, as shown in Table 4.17-8, the Pleasant Grove Boulevard/Country Club Drive intersection would maintain LOS B during both the AM and PM Peak Hours. The Pleasant Grove Boulevard/Woodcreek Oaks Boulevard intersection would experience improved CPP LOS during the PM

Peak Hour (improving from CNP LOS E to CPP LOS D). However, the AM Peak Hour LOS would remain at D under both cumulative and CPP conditions. The Pleasant Grove Boulevard/Foothills Boulevard intersection would improve under CPP conditions from CNP LOS E to CPP LOS D during the AM Peak Hour. However, the Pleasant Grove Boulevard/Foothills Boulevard intersection would degrade from CNP LOS E to LOS D under CPP conditions. It should be noted that under future cumulative conditions without the Project, the Pleasant Grove Boulevard/Woodcreek Oaks Boulevard and the Pleasant Grove Boulevard/Foothills Boulevard intersections would degrade to LOS E and F respectively during the PM Peak Hour.The GPU EIR further concludes that General Plan buildout would not conflict with adopted policies, plans, or programs for transit, bicycle, or pedestrian facilities nor would it adversely affect performance or safety of such facilities. According to the GPU EIR, the General Plan contains provisions that will enhance these modes to encourage greater use of transit and more walking and bicycling in the future. All new facilities and facility improvements contained in the circulation element diagram would be constructed to applicable design standards, including the City's Design and Construction Standards (City of Roseville 2020), which have been created to minimize the potential for conflicts or collisions. Thus, the GPU EIR concludes that City buildout would not conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or create or exacerbate disruptions to the performance or safety of these systems and related impacts were found to be less than significant. As presented in the setting section above, the Project Traffic Study is consistent with and further verifies these GPU EIR conclusions.

Because the proposed Project is also required to adhere to these same adopted policies, plans or programs, it would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Thus, there would be **no new impact** and no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☐	☒

No New Impact

CEQA Guidelines Section 15064.3 subdivision (b) addresses the criteria for analyzing transportation impacts and establishes the VMT metric as the most appropriate measure of transportation impacts in a CEQA document.

The GPU EIR concludes that VMT generated under General Plan buildout is 15.5 VMT per capita under financially constrained network conditions and 14.9 VMT per capita under financially unconstrained network conditions. As discussed in the GPU EIR, these VMT exceed the final EIR significance threshold of 12.8 VMT per capita, even with application of all feasible mitigation. Thus, the GPU EIR finds VMT impacts of General Plan buildout to be a significant and unavoidable impact.

Within the Project limits, the Pleasant Grove Boulevard Widening Project is proposed consistent with the General Plan Circulation Element Capital Improvement Program and would be subject to the same General Plan goals, policies and implementation measures evaluated in the GPU EIR. As a road widening project, there are no new policies, programs or mitigation measures that can be feasibly applied to the Project to further reduce GPU EIR VMT impacts. Thus, the Project is found to be within the scope of the significant unavoidable VMT impact identified in the GPU EIR. There would be **no new impact** and no additional mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒

No New Impact

The GPU EIR finds that General Plan buildout would not increase hazards due to a design feature, incompatible uses, or inadequate emergency access. All new facilities and facility improvements identified in the circulation element would be constructed according to the City's Design and Construction Standards, which have been created to ensure a safe and reliable multi-modal network. As such, this impact was found to be less than significant in the GPU EIR.

The proposed Project is required to comply with the City's Design and Construction Standards which would ensure that roadway, pedestrian, and bicycle facilities are appropriately designed and constructed, that all roadway/pedestrian/bicycle uses are compatible, and that emergency access is appropriately provided during both construction and operation. As such, all Project improvements would be designed to minimize the potential for conflicts or collisions and therefore the Project would not increase hazards due to a design feature or incompatible uses. There would be **no new impact** due to a geometric design feature (e.g., sharp curves or dangerous intersections), incompatible use, or emergency access and no additional mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
d) Result in inadequate emergency access?	☐	☐	☐	☒

No New Impact

As discussed in response c) above, with implementation of applicable adopted policy, the GPU EIR concludes that General Plan buildout would not result in inadequate emergency access and related impacts were identified as less than significant.

Because the proposed Project is primarily limited to road widening and would be subject to the same adopted General Plan Policy, it would similarly not result in inadequate emergency access resulting in **no new impact**.

4.17.3 Mitigation Measures

No new significant impacts were identified, and no mitigation measures are required.

4.18 Tribal Cultural Resources

This section summarizes results of AB52 Tribal Cultural Resources (TCRs) consultation conducted for the proposed Project by the City of Roseville.

4.18.1 Environmental Setting

4.18.1.1 Regulatory Setting

Assembly Bill 52

Effective July 1, 2015, AB 52 amended CEQA to require that: 1) a lead agency provide notice to those California Native American tribes that requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be addressed during consultation include TCRs, the potential significance of project impacts, type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

Pursuant to AB 52, Section 21073 of the PRC defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes.

Section 21074(a) of the PRC defines TCRs for the purpose of CEQA as:

1) Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

    a. included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or

    b. included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or

    c. 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because above criteria a and b also meet the definition of a Historical Resource under CEQA, a TCR may also require additional consideration as an Historical Resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their tribal cultural resources and heritage, AB 52 requires that CEQA lead agencies provide tribes that requested notification an opportunity to consult at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is used to develop appropriate avoidance, impact minimization, and mitigation measures.

United Auburn Indian Community

The UAIC is a federally recognized Tribe comprised of both Miwok and Maidu (Nisenan) Tribal members who are traditionally and culturally affiliated with the project area. The Tribe has a deep spiritual, cultural, and physical ties to their ancestral land and are contemporary stewards of their culture and landscapes. The Tribal community represents a continuity and endurance of their ancestors by maintaining their connection to their history and culture. It is the Tribe's goal to ensure the preservation and continuance of their cultural heritage for current and future generations.

4.18.1.2 Summary of Tribal Consultation

AB52 consultation requirements went into effect on July 1, 2015 for all projects that have not already published a Notice of Intent to Adopt a Negative Declaration or MND or published a Notice of Preparation of an EIR (Section 11 [c]). At the time the City of Roseville was ready to initiate CEQA review, it had received written requests to receive project notices from four California Native American Tribes, who identified themselves as being traditionally and culturally affiliated with the lands subject to City of Roseville jurisdiction: United Auburn Indian Community (UAIC), Tsi Akim Maidu, Ione Band of Miwok Indians, Shingle Springs Band of Miwok Indians.

On July 9, 2021, the City of Roseville determined that it had a complete project description and was ready to begin review under CEQA. The City subsequently mailed notification letters to each of the four tribes on July 13, 2021. In accordance with PRC Section 21080.3.1(d) of the PRC, responses to the offer to consult were requested by August 12, 2021. No response was received from Tsi Akim Maidu, Ione Band of Miwok Indians, Shingle Springs Band of Miwok Indians; therefore, no consultation occurred with these tribes.

UAIC conducted a records search for the identification of Tribal Cultural Resources for this project which included a review of pertinent literature and historic maps, and a records search using UAIC's Tribal Historic Information System (THRIS). UAIC's THRIS database is composed of UAIC's areas of oral history, ethnographic history, and places of cultural and religious significance, including UAIC Sacred Lands that are submitted to the Native American Heritage Commission (NAHC). The THRIS resources shown in this region also include previously recorded indigenous resources identified through the CHRIS as well as historic resources and survey data.

The UAIC responded to the City's request for consultation via email on August 4, 2021. In their response, UAIC indicated there would be no need for continued consultation as long as previously agreed to mitigation for unanticipated discoveries of potential tribal cultural resources is included in the Project's CEQA document. In an email reply dated August 4, 2021 from Terri Shirhall, City of Roseville Environmental Coordinator, the City agreed to include UAIC's preferred unanticipated discoveries mitigation measure along with other standard language UAIC recommends be included in CEQA document TCR sections, and consultation was concluded.

4.18.2 Tribal Cultural Resources (XVIII) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
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 Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	☐	☐	☒	☐

Less Than Significant Impact with Additional Mitigation

The GPU EIR concluded that General Plan buildout would result in development and infrastructure projects throughout the Planning Area that would involve earthmoving activities. The Planning Area and vicinity are known to have been heavily used by Native American groups prehistorically and UAIC has indicated that TCRs are located within the Planning Area. Existing General Plan policy and implementation measures would help to protect tribal cultural resources, however significant impacts to tribal cultural resources may still occur. Thus, the impact to Tribal Cultural Resources was found to be significant and unavoidable in the GPU EIR.

As discussed above, no tribal cultural resources were identified during AB52 Consultation. However, Project grading could result in the unanticipated disturbance to unknow tribal cultural resources, resulting in a potentially significant impact. Should this occur, as discussed in the GPU EIR, various General Plan policies and implementation measures addressing the unanticipated discovery would be implemented. As discussed above, during consultation the UAIC expressed a preference for a previously agreed to unanticipated discovery TCR mitigation measure, and the City found it to be equally as effective as applicable General Plan policy and related implementation measures. Thus, with implementation of Mitigation Measure TCR-1, the inadvertent discovery of tribal cultural resources would be a **less than significant impact with additional mitigation incorporated**.

4.18.3 Mitigation Measures

The following mitigation measure shall be implemented to addresses the evaluation and treatment of inadvertent/unanticipated discoveries of potential TCRs during Project ground disturbing activities.

TCR-1: Stop Work in the Event of Unanticipated Discovery of Potential Tribal Cultural Resources (TCRs)

If any suspected TCRs are discovered during ground disturbing construction activities, all work shall cease within 100 feet of the find, or an agreed upon distance based on the project area and nature of the find. A Tribal Representative from a California Native American tribe that is traditionally and culturally affiliated with a geographic area shall be immediately notified and shall determine if the find is a TCR (PRC Section 21074). The Tribal Representative will make recommendations for further evaluation and treatment as necessary.

Preservation in place is the preferred alternative under CEQA and UAIC protocols, and every effort must be made to preserve the resources in place, including through project redesign. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. The Tribe does not consider curation of TCRs to be appropriate or respectful and request that materials not be permanently curated, unless approved by the Tribe.

The contractor shall implement any measures deemed by the CEQA lead agency to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including, but not limited to, facilitating the appropriate tribal treatment of the find, as necessary. Treatment that preserves or restores the cultural character and integrity of a Tribal Cultural Resource may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil.

Work at the discovery location cannot resume until all necessary investigation and evaluation of the discovery under the requirements of the CEQA, including AB 52, has been satisfied.

4.19 Utilities and Service Systems

4.19.1 Environmental Setting

The following discussion is derived from the GPU EIR and provides an overview of the utility and service systems that operate within the City of Roseville.

4.19.1.1 Water Service

The City of Roseville Environmental Utilities Department provides water service to the majority of customers within the City limits. Some areas within the City limits are supplied by either Citrus Heights Water District, San Juan Water District, or Placer County Water Agency where it is feasible and beneficial to do so. The City's water supply includes primarily surface water from Folsom Lake, supplemented by groundwater. The City's water distribution system includes raw water facilities to deliver surface water supplies to the City's water treatment plant and the potable water facilities, which deliver potable water to City water customers. In addition to the potable water system, the City also operates a recycled water distribution system which is used primarily for irrigation purposes.

4.19.1.2 Wastewater

The City of Roseville Environmental Utilities Department provides wastewater collection and treatment services within the City limits. The City's sanitary sewer collection system includes gravity sewer lines, force mains, and lift station. The wastewater collection and conveyance system consist of 782 miles sewer pipe ranging in size of 4 to 72 inches in diameter and 16 neighborhood lift stations. Wastewater from the City is currently treated at the Dry Creek and the Pleasant Grove Wastewater Treatment Plants. Both regional facilities are owned and operated by the City of Roseville on behalf of the Regional Partners consisting of the City, the South Placer Municipal Utility District, and portions of unincorporated Placer County (primarily Morgan Creek, Granite Bay and Sunset Industrial Area). A small portion of the City service area flows to the Sacramento Area Sanitation District and is treated at the Sacramento Regional Wastewater Treatment Plant. This area consists of approximately 350 residential dwelling units.

4.19.1.3 Solid Waste

Roseville, along with the City of Lincoln, City of Rocklin, and Placer County formed the Western Placer Waste Management Authority that provides for solid waste management. Under this agreement, the Western Placer Waste Management Authority is assigned the lead role in cooperative policy making with respect to solid waste issues. The Western Placer Waste Management Authority owns and operates the Western Regional Sanitary Landfill, located at 3195 Athens Road in unincorporated Placer County, which serves the western portion of the County, including Roseville. Collection of solid waste within the City is conducted by Roseville's Environmental Utilities Department.

4.19.1.4 Electricity

The City of Roseville Electric Department provides electrical service to customers within the City limits. Roseville Electric infrastructure consists of transmission and generation facilities, sub-transmission and substation facilities, and distribution facilities that serve existing development.

4.19.1.5 Natural Gas

PG&E is the natural gas service provider for the City of Roseville. PG&E's underground transmission pipelines are located throughout City rights-of-way and other easements to serve existing development.

4.19.2 Utilities and Service Systems (XIX) Environmental Checklist and Discussion

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒

No New Impact

The GPU EIR concluded that General Plan buildout would require the relocation of or the construction of new or expanded water and wastewater infrastructure, stormwater drainage facilities, and electrical and natural gas infrastructure, however adopted mitigating policies and measures, where necessary, would serve to reduce or avoid most impacts to a less-than-significant level.

Utility extensions and minor relocations when in conflict with Project improvements are included as part of the Project as discussed in Project Description Section 1.4.1.6, Utility Relocations. Planned utility relocations would consist primarily of adjusting lids to grade as necessary to conform with grading and extending water, storm drain, electric and fiber utilities currently stubbed on the south side of Pleasant Grove Boulevard to the north side to serve a planned City groundwater well located west of Misty Wood Park (*Figure 2-3)*. In addition, electric distribution facilities and a recycled water line may require minor relocation were road widening occurs outside of the existing roadway prism near the northeast corner of the Foothills Boulevard/Pleasant Grove Boulevard intersection. Because the project is limited to road widening, it would not create significant new demands for new or expanded utility services. The only exception includes minor expansion of the existing onsite Pleasant Grove Boulevard stormwater drainage system as necessary to accommodate additional runoff generated from newly paved areas.

Although the Project would require the extension or relocation of certain utilities, all work would be conducted consistent with applicable General Plan policy and implementation measures. Therefore, the Project would not result in the relocation or construction of new or expanded water, wastewater

treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Thus, the Project is adequately addressed by the GPU EIR and there would be **no new impact** and no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☒

No New Impact

The GPU EIR concluded that General Plan buildout would increase water demand. However, by adhering to the goals, policies, and implementation measures of the General Plan, as well as local and State laws and regulations, the City would ensure adequate water supply is available to meet future demand. The City's UWMP determined that water supply is projected to be sufficient in normal water years over the UWMP's 20-year planning period (i.e., 2015 to 2035). Although water supply in single-dry years and some multiple-dry years is insufficient to meet demand within the City service area over the 20- year planning period, water conservation and/or groundwater use will ensure sufficient water supplies are available to meet demands. Therefore, this impact was found to be less than significant by the GPU EIR.

While the Project would require temporary water use during construction and grading operations, it would adhere to all applicable water supply General Plan policy and implementation measures. Furthermore, as a road widening project, it would not create in an increase in long-term water demand. Thus, sufficient water supplies would be available to serve project construction needs and foreseeable future development during normal, dry, and multiple dry years, as outlined in the GPU EIR. Thus, there would be **no new impact** and no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
c) Result in a determination by the wastewater treatment provider, which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒

No New Impact

The GPU EIR concluded that General Plan buildout would result in new residential, commercial, office, and industrial development that would generate additional wastewater that increases demand for wastewater treatment. However, by adhering to adopted General Plan goals, policies, and implementation measures,

the City would ensure adequate wastewater treatment capacity is available to meet future demand. Therefore, the GPU EIR found this impact to be less than significant.

As a road widening Project, it would not generate wastewater or create additional demand for wastewater treatment. Thus, there would be **no new impact** and no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒

No New Impact

The GPU EIR concluded that General Plan buildout would accommodate an increase in population and employees. Future development would be required to comply with applicable federal, State, or local solid waste regulations or statues. In addition, General Plan buildout would not generate solid waste in excess of state or local standards or in excess of capacity of local infrastructure. The Western Regional Sanitary Landfill has sufficient landfill capacity available to accommodate solid-waste disposal needs for development under the General Plan. Therefore, impacts related to sufficient landfill capacity and compliance with applicable statutes and regulations related to solid waste were found to be less than significant in the GPU EIR.

As a road widening Project, it would not generate significant amounts of solid waste nor would it create significant additional demand for solid waste disposal. All aspects of project construction would comply with related adopted General Plan policy and implementation measures. Thus, there would be **no new impact** and no mitigation is required.

Would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

No New Impact

The GPU EIR concluded that General Plan buildout would accommodate an increase in population and employees. Future development would be required to comply with applicable federal, State, or local solid waste regulations or statues. In addition, General Plan buildout was found to not generate solid waste in excess of state or local standards or in excess of capacity of local infrastructure. The Western Regional Sanitary Landfill has sufficient landfill capacity available to accommodate solid-waste disposal needs for General Plan buildout. Therefore, impacts related to sufficient landfill capacity and compliance with

applicable statutes and regulations related to solid waste were found to be less than significant in the GPU EIR.

As a road widening Project, it would not generate significant amounts of solid waste nor would it create significant additional demand for solid waste disposal. Furthermore, as a City CIP project, all aspects of construction are required to comply with related adopted General Plan policy and implementation measures. Thus, there would be **no new impact** and no mitigation is required.

4.19.3 Mitigation Measures

No new significant impacts were identified, and no mitigation measures are required.

4.20 Wildfire

4.20.1 Environmental Setting

According to the Fire Hazard Severity Zone online viewer maintained by California Department of Forestry and Fire Protection (CAL FIRE, 2022.), the Project site is located in within a Local Responsibility Area with fire protection services are provided by the City of Roseville Fire Department. The nearest high fire hazard severity zone is located approximately 16 miles northeast near the City of Auburn.

4.20.2 Wildfire (XX) Environmental Checklist and Discussion

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, City buildout would add additional traffic and residences requiring evacuation in case of an emergency. However, implementation of adopted General Plan policies would ensure conformance with local emergency-response programs and continued cooperation with emergency-response service providers. Thus, this impact was found to be less than significant in the GPU EIR.

As discussed above, the nearest high fire hazard severity zone is located approximately 16 miles northeast of the Project site near the City of Auburn. Thus, the Project site is not located within or near a state responsibility area, on lands classified as very high fire hazard, nor would the Project impair any related emergency response or evacuation plan. There would be **no new impact**.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from, a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, City buildout could potentially increase risk to fire for both people and property. However, implementation of proposed GPU policies and actions, along with existing regulations would ensure that people and structures would not be exposed to a significant risk of loss of injury involving fires. This impact was found to be less than significant by the GPU EIR.

As discussed above, the nearest high fire hazard severity zone is located approximately 16 miles northeast of the Project site near the City of Auburn. Thus, the Project site is not located within or near a state responsibility area nor would it, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose the traveling public to, pollutant concentrations from, a wildfire or the uncontrolled spread of a wildfire. There would be **no new impact**.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, City buildout could potentially increase risk to fire for both people and property. However, implementation of proposed GPU policies and actions, along with existing regulations would ensure that people and structures would not be exposed to a significant risk of loss of injury involving fires. This impact was found to be less than significant by the GPU EIR.

As discussed above, the nearest high fire hazard severity zone is located approximately 16 miles northeast of the Project site near the City of Auburn. Thus, the Project site is not located within or near a state responsibility area, nor would it require the installation or maintenance of associated fire control infrastructure (i.e., 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. There would be **no new impact** and no mitigation is required.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

No New Impact

According to the GPU EIR, City buildout could potentially increase risk to fire for both people and property. However, implementation of proposed GPU policies and actions, along with existing regulations would ensure that people and structures would not be exposed to a significant risk of loss of injury involving fires. This impact was found to be less than significant by the GPU EIR.

As discussed above, the nearest high fire hazard severity zone is located approximately 16 miles northeast of the Project site near the City of Auburn. Thus, the Project site is not located within or near a state responsibility area, nor would it expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Implementation of the City's Design and Construction Standards (City of Roseville 2020) ensures there would be **no new impact**.

4.20.3 Mitigation Measures

No new significant impacts were identified, and no mitigation measures are required.

4.21 Mandatory Findings of Significance

4.21.1 Mandatory Findings of Significance (XXI) Environmental Checklist and Discussion

Does the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐

Less than Significant Impact with Additional Mitigation

As a road widening project with widening occurring primarily to the interior landscaped median, the Project has very minimal impact to sensitive species and/or their habitat. However, as discussed in Section 4.4 Biological Resources, the following special-status bird and bat wildlife species could be affected by tree removal and road construction activities: White-tailed kite (*Elanus leucurus*), Cooper's hawk (*Accipiter cooperii*), Swainson's hawk (*Buteo swainsoni*), Nuttall's woodpecker (*Dryobates nuttallii*), yellow-billed magpie (*Pica nuttallii*), Oak titmouse (*Baeolophus inornatus*), Townsend's big-eared bats (*Corynorhinus townsendii*), and Pallid bats (*Antrozous pallidus*). The GPU EIR finds that impacts to these species are primarily addressed by adopted General Plan Goals and Policies, combined with current laws and regulations, and GPU EIR mitigation measures 4.8-1 (Implement Measures for Special-Status Plants and Habitat) and 4.8-2 (Implementation Measure for Special-Status Wildlife). These mitigation measures are refined in this initial study as "project level" Mitigation Measures **BIO-1** and **BIO-2** and would ensure a **less than significant with additional mitigation**.

As indicated in Section 4.5 Cultural Resources, and Section 4.18, Tribal Cultural Resources, the Project is expected to avoid direct impacts to known cultural and tribal resources. Further, implementation of Mitigation Measure **TCR-1** would ensure potential impacts to unknown onsite tribal resources are protected to the degree feasible. Consistent with adopted City policy, should any cultural or tribal resources or human remains be encountered during construction, construction activities would be halted, and a professional archaeologist consulted. Similarly, implementation of Mitigation Measure **GEO-1** would ensure potential paleontological resource impacts are mitigated to less than significant. Thus, the Project would not cause a significant change to the quality of the environment and related impacts would be **less than significant with addition mitigation incorporated.**

Does the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒

No New Impact

All Project impacts were found to be less than significant, including air quality and greenhouse gas, and mitigation measures are only required for impacts to those special status wildlife species identified in response a) above (and for the protection of unknown tribal cultural resources and paleontological resources). The Project's cumulative impacts are less than significant and there would be **no new impact**.

Does the Project:	New Significant Impact	Substantially More Severe Significant Impact	Less than Significant Impact with Additional Mitigation	No New Impact
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

No New Impact

Potential impacts to human beings include increase in ambient noise during construction and increases in air emissions including PM (dust) during construction. These impacts were found to be temporary and less than significant. Implementation of the Project's Mitigation Monitoring Program will ensure compliance with related measures.

Based on analysis contained in this initial study, and the fact that the Project is limited road widening that would primarily occur into the existing Pleasant Grove Boulevard center median, no significant direct or indirect impacts to human beings are identified and related impacts were found to be less than significant. Therefore, Project construction and operation would not result in any substantial adverse effects on human beings and there would be **no new impact**.

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