



Diamond Dorado Retail Center Project Draft Environmental Impact Report



State Clearinghouse No. 2008012004

El Dorado County ■ December 23, 2011



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STAFF REPORT-EXHIBIT 0-2 (DRAFT EIR)
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DRAFT
Environmental Impact Report
Diamond Dorado Retail Center Project
Diamond Springs, El Dorado County, California

State Clearinghouse No. 2008012004

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ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit
µg/m ³	micrograms per cubic meter
ADA	Americans with Disabilities Act
AST	aboveground storage tank
ATCM	Airborne Toxic Control Measures
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practices
BVOC	biogenic volatile organic compound
C	Celsius
CAAQS	California Ambient Air Quality Standards
Cal OSHA	California Occupational Health and Safety Administration
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CARB	California Air Quality Board
CDCR	California Department of Corrections and Rehabilitation
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	chlorofluorocarbon
CH ₄	methane
CHL	California Historical Landmarks
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society

Acronyms and Abbreviations

CO	carbon monoxide
CO ₂ e	carbon dioxide equivalent
CPHI	California Points of Historical Interest
CPUC	California Public Utilities Code
CSA 2	Community Service Area 2
dB	decibel
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EDCTA	El Dorado County Transit Authority
EIR	Environmental Impact Report
EMF	electromagnetic field
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FAR	floor area ration
FHWA	Federal Highway Administration
GWh/y	gigawatt-hours per year
GWP	global warming potential
HCM	Highway Capacity Manual
HFC	hydrofluorocarbon
HRA	Health Risk Assessment
HRI	California Historic Resources Inventory
HVAC	heating, ventilation, and air conditioning
IS	Initial Study
ITS	Intelligent Transportation Systems
L _{dn}	day/night average sound level

LED	light emitting diode
L _{eq}	equivalent sound level
LOS	Level of Service
MBA	Michael Brandman Associates
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
MMI	Modified Mercalli Intensity
mph	miles per hour
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NCUAQMD	North Coast Unified Air Quality Management District
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NO ₂	nitrogen dioxide
NOC	Notice of Completion
NOP	Notice of Preparation
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O ₃	ozone
OEHHA	California Office of Environmental Health Hazard Assessment
PCB	polychlorinated biphenyl
pCi/l	picoCuries per liter
PFC	perfluorocarbon
PM _x	particulate matter

Acronyms and Abbreviations

ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PVC	polyvinyl chloride
RCRA	Federal Resource Conservation and Recovery Act
RMP	Risk Management Plan
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SF ₆	sulfur hexafluoride
SO ₂	sulfur dioxide
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TCM	transportation control measures
TDS	total dissolved solids
Tg	teragram
therms/y	therms per year
TNW	Traditionally Navigable Waters
TRU	transportation refrigeration unit
USACE	United States Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank
WDR	Waste Discharge Requirements

SECTION 1: INTRODUCTION

1.1 - Overview, Purpose, and Authority of the EIR

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of the Diamond Dorado Retail Center (State Clearinghouse No. 2008012004). This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.), and the County of El Dorado. This Draft EIR is intended to serve as an informational document for the public agency decision makers and the public regarding the Proposed Project.

1.1.1 - Overview

The Proposed Project consists of an approximately 280,515-square-foot commercial retail in the form of one large, one-story retail store; one medium-sized, one-story retail store; up to seven smaller, one-story retail/office buildings; and a fuel station. Approximately 1,279 vehicular parking spaces would be provided. The Proposed Project would also realign the Material Recovery Facility (MRF) access from Throwita Way to a new access road off Lime Kiln Road. Section 3, Project Description, provides a complete description of the Project.

1.1.2 - Purpose and Authority

This Draft EIR provides a project-level analysis of the environmental effects of the Diamond Dorado Retail Center Project. The environmental impacts of the Proposed Project are analyzed in the EIR to the degree of specificity appropriate, in accordance with CEQA Guidelines Section 15146. This document addresses the potentially significant adverse environmental impacts that may be associated with the planning, construction, or operation of the Project. It also identifies appropriate and feasible mitigation measures and alternatives that may be adopted to significantly reduce or avoid these impacts.

CEQA requires that an EIR contain, at a minimum, certain specific elements. These elements are contained in this Draft EIR and include:

- Table of Contents
- Introduction
- Executive Summary
- Project Description
- Environmental Setting, Significant Environmental Impacts, and Mitigation Measures
- Cumulative Impacts
- Significant Unavoidable Adverse Impacts
- Alternatives to the Proposed Project
- Growth-Inducing Impacts

- Effects Found Not To Be Significant
- Areas of Known Controversy

1.1.3 - Lead Agency Determination

The County of El Dorado is designated as the lead agency for the Project. CEQA Guidelines Section 15367 defines the lead agency as “. . . the public agency, which has the principal responsibility for carrying out or approving a project.” Other public agencies may use this Draft EIR in the decision-making or permit process and consider the information in this Draft EIR along with other information that may be presented during the CEQA process.

This Draft EIR was prepared by Michael Brandman Associates, an environmental consultant. Prior to public review, it was extensively reviewed and evaluated by County of El Dorado. This Draft EIR reflects the independent judgment and analysis of the County of El Dorado as required by CEQA. Lists of organizations and persons consulted and the report preparation personnel are provided in Sections 7 and 8 of this Draft EIR, respectively.

1.1.4 - Process of EIR Approval under CEQA

The California Environmental Quality Act is intended to be used in conjunction with the discretionary powers granted to public agencies by other laws (CEQA Guidelines Section 15040). In other words, CEQA is only a portion of the entire entitlement process that a project must go through in order to obtain approval by the lead agency (in this case, El Dorado County). When a project is first presented to the County, County staff looks over all application materials to make sure all the required information has been submitted. Once it is determined that the project is not exempt from the CEQA process, the level of environmental analysis is determined from the impacts the project may have on the environment. In the Initial Study, County staff determined that the Diamond Dorado Retail Center (DDRC) created potentially significant impacts; therefore, preparation of an EIR is required for the Project.

The purpose of an EIR is to disclose the significant environmental effects of proposed activities to decision makers (in this case, the County Board of Supervisors) and the public. The EIR also identifies ways to avoid or reduce environmental impacts by requiring implementation of feasible alternatives or mitigation measures. The EIR does not contain any analyses regarding non-environmental effects, such as the economic or social impacts a project may have. Non-environmental issues will be taken into consideration by the Board of Supervisors when deciding to approve or deny the Project.

Once the EIR has been completed, the Project is ready for public hearing before the appropriate elected or appointed decision-making body. It is the County of El Dorado Board of Supervisors that has the authority to approve or deny the Proposed Project. CEQA does not grant an agency new power independent of the powers granted to the County by other laws. However, CEQA does supplement the discretionary powers of the County by authorizing the agency to use its discretionary

powers to mitigate or avoid significant effects on the environment when it is feasible to do so (CEQA Guidelines Section 15040). Prior to approving a project, the County must certify that the EIR has been completed in compliance with CEQA, that the Board of Supervisors reviewed and considered the information contained in the EIR prior to approving the Project, and that the EIR reflects the Board of Supervisors' independent judgment and analysis (CEQA Guidelines Section 15090).

The County cannot approve a project for which an EIR has been certified that identifies one or more significant environmental effects of the project, unless the County makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. After considering the EIR in conjunction with the written findings, the County may decide whether or how to approve the Project. The County cannot decide to approve a project unless the project will not have a significant effect on the environment, the agency has eliminated or substantially reduced all significant effects on the environment where feasible, or the County determined that any remaining significant effects on the environment found to be unavoidable under the written findings are acceptable due to overriding considerations (CEQA Guidelines Section 15092).

When considering a project, the Board of Supervisors may also consider economic, legal, social, technological, or other factors and/or the benefits the Proposed Project may have in the community. If specific economic, legal, social, technological, or other factors and/or the benefits of a project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable." When the Board of Supervisors approves a project that will result in significant environmental effects, the County must state in writing the specific reasons to support its actions based on the EIR and/or other information in the record (economic, legal, social, technological, or other information). The Statement of Overriding Considerations must be supported by substantial evidence in the record (CEQA Guidelines Section 15093).

1.1.5 - Discretionary and Ministerial Actions

Discretionary approvals are required by El Dorado County for a General Plan Amendment (GPA), Rezone to General Commercial - Planned Development (CG-PD), Tentative Parcel Map (TPM), and Development Plan. Accordingly, the Project would require the following discretionary approvals and actions, including:

- Certification of a final Environmental Impact Report for the Project including the GPA, Rezone and Planned Development, and Tentative Parcel Map Applications under the requirements of CEQA;
- Adoption of a Mitigation Monitoring and Reporting Plan, Findings of Fact, and Statement of Overriding Considerations (if necessary);
- Adoption of the Development Agreement (DA);

- Approval of the Application for a General Plan Amendment (GPA);
- Approval of the Application for Rezone;
- Adoption of a funding agreement and financing plan for major infrastructure improvements associated with the Project; and
- Adoption of the Development Plan as official plan for the DDRC and;
- Approval of the Tentative Parcel Map (TPM) and its conditions.

Future ministerial actions at the County level may include but are not limited to the following:

- Approval by the County DOT for frontage improvements related to Diamond Springs Parkway and Caltrans for improvements related to Diamond Road/SR-49, north of Diamond Springs; and
- Building and encroachment permits and/or approvals for sewer, water, and drainage improvements (County Planning and DOT, El Dorado Irrigation District, Pacific Gas & Electric, etc.).

The Project may require discretionary agency approvals for the actions listed below:

- California Department of Fish and Game (CDFG)—Approval of appropriate potential streambed alteration agreements, pursuant to Section 1600 of the Fish and Game Code.
- U.S. Army Corps of Engineers (USACE)—Approval of appropriate permits under Section 404 of the CWA, which may include an evaluation of cultural resources under Section 106 of the National Historic Preservation Act. If a USACE permit is required, the Project will need to comply with Section 7 of the Federal Endangered Species Act.
- Regional Water Quality Control Board (RWQCB)—Water quality certification under Section 401 of the Clean Water Act if a 404 permit is required and approval for coverage under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit (General Permit) under Section 402 of the Clean Water Act (CWA). Under the General Permit, a Storm Water Pollution Prevention Plan (SWPPP) must be prepared before any construction activities begin.
- State Water Resources Control Board—Spill Prevention Control and Countermeasure Plan (SPCCP) will be prepared for the Project in accordance with the 40 CFR 112.
- El Dorado County Air Quality Management District (EDCAQMD)—Construction permits and dust mitigation plan.

1.2 - Scope of the EIR

This Draft EIR addresses the potential environmental effects of the Proposed Project and its General Plan Amendment, Rezone, Development Plan and Tentative Parcel Map. The County of El Dorado issued a Notice of Preparation (NOP) for the Proposed Project on January 8, 2008, which circulated between January 8, 2008 and February 7, 2008 for the statutory 30-day public review period. The scope of this Draft EIR includes the potential environmental impacts identified in the NOP and issues raised by agencies and the public in response to the NOP. The NOP is located in Appendix A of this Draft EIR.

No comment letters were received in response to the NOP.

The NOP described the relocation of the County's Materials Recovery Facility (MRF), which was to be considered under a separate EIR. Relocation of the MRF would have allowed the DDRC to be developed on a contiguous 44.76 acres, which included the current MRF parcel. Note that relocation of the MRF was never a part of the DDRC Project and would have occurred under a separate action by the County. However, strong public opposition to the MRF relocation halted any further consideration of MRF relocation, due to a number of factors but, specifically, the MRF's proximity to residences and the potential resulting environmental impacts. Accordingly, the Project was adjusted to allow the MRF to remain at its current location and to construct a new access point from Lime Kiln Road.

The Proposed Project assumes that the Diamond Springs Parkway would be constructed as a two-lane roadway prior to construction of the DDRC. The County General Plan Circulation Map (El Dorado County 2004) identifies the Parkway as a planned roadway, and the Parkway is part of the County DOT's 2010 Capital Improvement Plan (CIP) and subject to the County's Traffic Impact Mitigation (TIM) Fee Program. The Diamond Springs Parkway is a separately Proposed Project. A separate EIR (State Clearinghouse No. 2007122033) has been prepared for the Diamond Springs Parkway under the direction of El Dorado County's Department of Transportation and was certified by the Board of Supervisors on May 24, 2011.

1.2.1 - Environmental Issues Determined Not To Be Significant

Based on preliminary review of the Proposed Project potential environmental impacts in the following identified topical areas were determined not to be significant and are not analyzed in this Draft EIR. An explanation of why each area is determined not to be significant is provided in Section 6, Other CEQA Required Sections. These topical areas are as follows:

- Agricultural Resources
- Mineral Resources
- Population and Housing
- Recreation

In addition, the potential for environmental impacts on certain subjects within various topical areas were determined not to be significant. Accordingly, the following subjects were scoped out to Section 6.5, Effects Found Not To Be Significant:

- Scenic Vista (Section 4.1, Aesthetics, Light, and Glare)
- Scenic Highway (Section 4.1, Aesthetics, Light, and Glare)
- Conservation Plans (Section 4.3, Biological Resources)
- Septic and Alternative Wastewater Disposal Systems (Section 4.5, Geology, Soils, and Seismicity)
- Exposure of Schools to Hazardous Materials (Section 4.6, Hazards and Hazardous Materials)
- Aviation Hazards (Section 4.6, Hazards and Hazardous Materials)
- Private Airstrips (Section 4.6, Hazards and Hazardous Materials)
- Housing within 100-Year Flood Hazard Areas (Section 4.7, Hydrology and Water Quality)
- Structures within 100-Year Flood Hazard Areas (Section 4.7, Hydrology and Water Quality)
- Flooding and Dam or Levee Failure (Section 4.7, Hydrology and Water Quality)
- Seiche, Tsunami, or Mudflow Hazards (Section 4.7, Hydrology and Water Quality)
- Conservation Plans (Section 4.8, Land Use)
- Aviation Noise (Section 4.9, Noise)
- Schools (Section 4.10, Public Services and Utilities)
- Parks (Section 4.10, Public Services and Utilities)
- Other public facilities (Section 4.10, Public Services and Utilities)
- Air Traffic Patterns (Section 4.11, Transportation)

An explanation of why each issue is determined not to be significant is provided in Section 6, Other CEQA Required Sections.

1.2.2 - Potentially Significant Environmental Issues

The following topical areas may contain potentially significant environmental issues that will require further analysis in the EIR. These topical areas are as follows:

- General Plan Consistency and Land Use Compatibility
- Aesthetic Resources
- Geologic and Soil-Related Hazards
- Displacement of Existing Structures
- Air Quality and Health Risks
- Noise and Acoustics
- Traffic, Circulation, and Alternative Transportation
- Biological Resources, Oak Woodland, and Wetlands
- Drainage and Water Quality
- Hazards and Hazardous Materials
- Public Services and Utility Service Infrastructure
- Historic and Archaeological Resources

1.3 - Organization of the EIR

This Draft EIR is organized into the following main sections:

- **Section 1: Introduction.** This section provides an introduction and overview describing the purpose of this Draft EIR, its scope and components, and its review and certification process.
- **Section 2: Executive Summary.** This section includes a summary of the Proposed Project and its related General Plan Amendment, Rezone and Planned Development, Tentative Parcel Map, and Development Plan, and alternatives to be addressed in the Draft EIR. A brief description of the areas of controversy and issues to be resolved and a table that summarizes the impacts, mitigation measures, and level of significance after mitigation are also included in this section.
- **Section 3: Project Description.** This section includes a detailed description of the Proposed Project, including its location, site, and project characteristics. A discussion of the project objectives, intended uses of the Draft EIR, responsible agencies, and approvals that are needed for the Proposed Project are also provided.
- **Section 4: Environmental Impact Analysis.** This section analyzes the environmental impacts of the Proposed Project. Impacts are organized into major topic areas. Each topic area includes a description of the environmental setting, methodology, significance criteria, impacts, mitigation measures, and significance after mitigation. The specific environmental topics that are addressed within Section 4 are as follows:
 - **Section 4.1 - Aesthetics, Light, and Glare:** Addresses the potential visual impacts of development intensification and the overall increase in illumination produced by the Project.
 - **Section 4.2 - Air Quality:** Addresses the potential air quality impacts associated with project implementation, as well as consistency with the El Dorado County Air Quality Management District air quality management plan. In addition, the section evaluates project emissions of greenhouse gases.
 - **Section 4.3 - Biological Resources:** Addresses the Project's potential impacts on habitat, vegetation, and wildlife; the potential degradation or elimination of important habitat; and impacts on listed, proposed, and candidate threatened and endangered species.
 - **Section 4.4 - Cultural Resources:** Addresses the potential impacts of project development on known historical resources and potential archaeological and paleontological resources.
 - **Section 4.5 - Geology, Soils, and Seismicity:** Addresses the potential impacts the Project may have on soils and assesses the effects of project development in relation to geologic and seismic conditions.

- **Section 4.6 - Hazards and Hazardous Materials:** Addresses the potential for the presence of hazardous materials or conditions on the project site and in the project area that may have the potential to impact human health.
 - **Section 4.7 - Hydrology and Water Quality:** Addresses the potential impacts of the Project on local hydrological conditions, including drainage areas, and changes in the flow rates.
 - **Section 4.8 - Land Use:** Addresses the potential land use impacts associated with division of an established community and consistency with County of El Dorado General Plan.
 - **Section 4.9 - Noise:** Addresses the potential noise impacts during construction and at project buildout from mobile and stationary sources. The section also addresses the impact of noise generation on neighboring uses.
 - **Section 4.10 - Public Services and Utilities:** Addresses the potential impacts upon service providers, including fire protection, law enforcement, water supply, wastewater, solid waste, and energy providers.
 - **Section 4.11 - Transportation:** Addresses the impacts on the local and regional roadway system, public transportation, bicycle, and pedestrian access.
- **Section 5: Alternatives to the Proposed Project.** This section compares the impacts of the Proposed Project with four land-use project alternatives: the No Project Alternative, the Industrial Alternative, the Reduced Density Alternative, and the Mixed-Use Center Alternative. An environmentally superior alternative is identified. In addition, alternatives initially considered but rejected from further consideration are discussed.
 - **Section 6: Other CEQA Required Sections.** This section provides a summary of significant environmental impacts, including unavoidable and growth-inducing impacts. This section discusses the cumulative impacts associated with the Proposed Project, including the impacts of past, present, and probable future projects. In addition, the Proposed Project's energy demand and effects found not to be significant are discussed.
 - **Section 7: Persons and Organizations Consulted:** This section lists persons and organizations consulted, by name and company/agency affiliation, in the preparation of the Draft EIR.
 - **Section 8: List of Preparers.** This section lists the authors who assisted in the preparation of the Draft EIR, by name and affiliation.
 - **Section 9: References.** This section contains a full list of references that were used in the preparation of this Draft EIR.
 - **Appendices:** Notices and other procedural documents pertinent to the Draft EIR, as well as all technical material prepared to support the analyses are included in this section.

1.4 - Documents Incorporated by Reference

As permitted by CEQA Guidelines Section 15150, this Draft EIR has referenced several technical studies, analyses, and previously certified environmental documentation. Information from the documents, which have been incorporated by reference, has been briefly summarized in the appropriate section(s). The relationship between the incorporated part of the referenced document and the Draft EIR has also been described. The documents and other sources that have been used in the preparation of this Draft EIR include but are not limited to:

- El Dorado County General Plan
- El Dorado County General Plan Environmental Impact Report (State Clearinghouse No. 2001082030)
- El Dorado County Ordinance Code
- El Dorado County Design Improvement and Standards Manual (DISM)
- El Dorado County Grading Ordinance
- El Dorado County Drainage Manual
- MC&FP Environmental Impact Report (State Clearinghouse No. 97092074)
- Biological Resources Assessments
- Delineation of Jurisdictional Waters and Wetlands
- Section 106 Cultural Resources Assessment and Memorandum
- Geotechnical Engineering Study
- Phase I Environmental Site Assessment
- Preliminary Drainage Study
- Environmental Noise Assessment
- Public Services Response Letters
- Traffic Impact Analysis

These documents are specifically identified in Section 9, References, of this Draft EIR. In accordance with CEQA Guidelines Section 15150(b), the General Plan, and the referenced documents and other sources used in the preparation of the Draft EIR are available for review at the El Dorado County Development Services Department at the address shown in Section 1.6, below.

1.5 - Technical Studies Prepared for the Project

The following technical studies and analyses were prepared for the Proposed Project and are included in the Appendices to this Draft EIR:

- Odor Impact Analysis
- Biological Resources Assessment
- Delineation of Jurisdictional Waters and Wetlands
- Section 106 Cultural Resources Assessment and Memorandum
- Cultural Resources Assessment
- Geotechnical Engineering Study
- Phase I Environmental Site Assessments
- Drainage Study
- Environmental Noise Assessment
- Traffic Impact Analysis

1.6 - Review of the Draft EIR

Upon completion of this Draft EIR, the County of El Dorado filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the Draft EIR, including the technical appendices, is available for review at the El Dorado County Development Services Department and the El Dorado County Library. The address for each location is provided below:

County of El Dorado
Development Services Department, Planning Services
2850 Fairlane Court
Placerville, CA 95667
Phone: 530.621.5355

El Dorado County Main Library
345 Fair Lane
Placerville, CA 95667
Phone: 530.621.5540

The Draft EIR public comment period will end no sooner than 45 calendar days from the date on the cover of this document. The comment period end date is identified in the Notice of Availability for this Draft EIR. Agencies, organizations, and interested parties have the opportunity to comment on the Draft EIR during the 45-day public review period. Written comments on this Draft EIR should be addressed to:

Mel Pabalinas, Senior Planner
El Dorado County Development Services
2850 Fairlane Court, Building "C"
Placerville, CA 95667
Phone: 530-621-5363
E-mail: rommel.pabalinas@edcgov.us

Written comments submitted via electronic mail must either be included in the body of the text of the email message or as an attached file in Microsoft® Word or Adobe® PDF format. Please include the following phrase in the email subject line: "Diamond Dorado Retail Center Draft EIR Comments."

Copies of all written comments will be included in the Final EIR and will become a part of the publicly accessible administrative record.

The public will have the opportunity to provide written and oral comments on the Draft EIR at a public hearing. The date, time, and location of the public hearing are identified in the Notice of Availability for this Draft EIR.

Following receipt of public comments on the Draft EIR, the County will prepare a Final EIR that includes all responses to comments and any necessary revisions to the text of the Draft EIR. The Final EIR will be made available for review by commenting agencies at least 10 days prior to the public hearing before the County of El Dorado on the Project, at which the certification of the Final EIR will be considered. The County must certify the Final EIR prior to project approval.

SECTION 2: EXECUTIVE SUMMARY

2.1 - Purpose

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of the Diamond Dorado Retail Center Project (State Clearinghouse No. 2008012004). This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.).

The purpose of this Draft EIR is to inform decision makers, representatives of affected and responsible agencies, the public, and other interested parties of the potential environmental effects that may result from implementation of the Proposed Project. This Draft EIR describes potential impacts relating to a wide variety of environmental issues and methods by which these impacts can be mitigated or avoided.

2.2 - Project Summary

2.2.1 - Project Location

The Proposed Project is located within unincorporated El Dorado County, California, south of the Missouri Flat Road/US-50 Interchange, west of the City of Placerville, and north of the town of Diamond Springs (Exhibit 3-1). As illustrated in Exhibit 3-2, the project site abuts Diamond Road/State Route 49 (SR-49) to the east, the future Diamond Springs Parkway (Parkway) and Bradley Drive to the north, and Lime Kiln Road to the south.

The project study area includes all or portions of Assessor's Parcel Numbers (APNs) 051-250-12, 051-250-46, 051-250-47, 051-250-51, and 051-250-54, totaling approximately 30.63 acres, 27.61 acres of which will be developed as the proposed Diamond Dorado Retail Center. Parcel 051-250-47 contains the Material Recovery Facility, of which only a portion (3.02 acres) will be disturbed to provide a new access road. Exhibit 3-3 illustrates the subject parcels that comprise the Diamond Dorado Retail Center project site. Upon completion of the Diamond Springs Parkway, parcel 051-250-54 will be split into three parts, two of which will be located north of the parkway. These parcel remnants are identified of Exhibit 3-2. Similarly, the remainder parcel 051-250-21 will be located south of the Parkway, but will not be included in the Proposed Project.

2.2.2 - Project Description

The Proposed Project consists of the development of a 280,515-square-foot retail center, associated parking, on- and offsite infrastructure and roadway improvements required to support the Proposed Project. The Proposed Project would construct up to nine commercial/retail buildings and 1,279 vehicular parking spaces on 27.61 acres (see Exhibit 3-5). The proposed tentative map and associated

site access was developed with the anticipation of the El Dorado County Department of Transportation's Diamond Springs Parkway Project also known as the Parkway. Based on the future Parkway alignment, the primary site access to the DDRC would be provided from one signalized intersection situated along the Parkway near Throwita Way. Three additional site access points would be provided by right-turn-in and right-turn-out driveways—one at Diamond Road/SR-49 and two located west of the main Parkway signalized entrance. Additionally, the Proposed Project would require removal of the southern portion of Throwita Way thereby eliminating access to the existing Material Recovery Facility (MRF). The Proposed Project also includes the construction of a new MRF access road via Lime Kiln Road. Section 3, Project Description, provides a complete description of the Proposed Project.

In addition to the planned development that includes the physical components of the Proposed Project, there are a number of discretionary land use approvals proposed with the DDRC Project that must be analyzed under CEQA. The Proposed Project includes a General Plan Amendment (GPA) to facilitate commercial use, an associated rezoning to General Commercial – Planned Development (CG - PD), Development Agreement (DA), a Planned Development Permit, and approval of the Tentative Commercial Parcel Map (TPM).

In addition to the onsite improvements associated with the Diamond Dorado Retail Center Project, this document also discusses offsite roadway improvements, which are required by mitigation measures contained in Section 4.11 of this EIR. Impact discussions of offsite improvements are limited to short-term construction impacts and not to operational impacts. Table 3.2 within the Project Description provides the location and a brief description of the proposed offsite roadway improvements. The locations of proposed offsite roadway improvements are illustrated in Exhibits 3-11a and 3-11b.

2.2.3 - Project Objectives

The primary objectives of the DDRC Project are as follows:

- Develop a new retail center that serves local residents and visitors with essential goods and services
- Create new job opportunities for local residents
- Promote increased economic growth and development that is consistent with the policies of the El Dorado County General Plan
- Generate additional sales tax and property tax revenues for El Dorado County
- Utilize existing infrastructure by developing a retail center on an infill site in the vicinity of existing commercial uses.

2.3 - Significant Unavoidable Adverse Impacts

The Proposed Project would result in the following significant unavoidable impacts:

- **Air Quality Plan Consistency (Impact AIR-1):** The Proposed Project is inconsistent with the applicable Air Quality Management Plan. Mitigation is identified that would reduce operational emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x); however, the necessary trip and vehicle miles traveled reductions are not feasible for the Project. Therefore, the residual significance would be significant and unavoidable.
- **Regional Air Quality Impact Contribution (Impact AIR-3).** The Proposed Project would also exceed the operational project-level threshold of significance for ROG and NO_x, thereby contributing considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standards. Mitigation is identified that would reduce operational emissions of ROG and NO_x; however, the necessary trip and vehicle miles traveled reductions are not feasible for the Project. Therefore, the residual significance would be significant and unavoidable.
- **Greenhouse Gas Generation (Impact AIR-6).** The Proposed Project would generate significant levels of greenhouse gases from project operations. Mitigation is identified that would reduce operational emissions of greenhouse gases; however, the necessary trip and vehicle miles traveled reductions are not feasible for the Project. Therefore, the residual significance would be significant and unavoidable.
- **Greenhouse Gas Plan Consistency (Impact AIR-7).** The Proposed Project would conflict with California's Scoping Plan, adopted for the purposes of reducing greenhouse gas emissions in the state. Mitigation is identified that would reduce operational emissions of greenhouse gases; however, the necessary trip and vehicle miles traveled reductions are not feasible for the Project. Therefore, the residual significance would be significant and unavoidable.
- **Cumulative (2025) Plus Project Intersection Conditions (Impact TRANS-3).** The Proposed Project would increase the delay for the eastbound approach at the Missouri Flat Road and Enterprise Drive intersection through the addition of traffic on Missouri Flat road, thereby confounding the existing unacceptable LOS F in the PM peak-hour. Construction of a signal at the intersection would mitigate the eastbound delay, but would result in a significant southbound queuing issue on Missouri Flat Road. As such, implementation of a signal at this intersection is not an acceptable option for mitigation and no other feasible mitigation is available. Therefore, impacts would be significant and unavoidable.
- **Queuing (Impact TRANS-5).** The Proposed Project would result in unacceptable queuing at the Missouri Flat Road/Eastbound US-50 ramp and Missouri Flat Road/Westbound US-50 ramp intersections. Mitigation is proposed; however, minor queuing issues would remain at the southbound left turn lane from the Missouri Flat Road/Eastbound US 50 Ramp intersection.

No acceptable mitigation is available to resolve the remaining queuing issue. Therefore, the residual significance would be significant and unavoidable.

2.4 - Summary of Project Alternatives

Below is a summary of the alternatives to the Proposed Project considered in Section 5, Alternatives to the Proposed Project. In addition, alternatives that were initially considered but ultimately rejected are discussed in Section 5, Alternatives to the Proposed Project.

2.4.1 - No Project Alternative

The project site would remain in its existing condition and no new development would occur. A General Plan Amendment and rezone would not occur.

2.4.2 - Industrial Project Alternative

The project site would be developed with a 280,000-square-foot industrial complex consisting of nine buildings. The industrial complex would be constructed in accordance with the existing Industrial zone development standards regarding parking, landscaping, and setbacks. The floor-area ratio (FAR) would be 0.21. Proposed uses would include storage; manufacturing, processing, and repair services; general office; and wholesale/sales floor/showroom.

2.4.3 - Reduced Density Alternative

The project site would be developed with 210,386 square feet of retail space representing a 25-percent reduction relative to the Proposed Project. The Reduced Density Alternative is identified as the Environmentally Superior Alternative.

2.4.4 - Mixed Use Center Alternative

The Proposed Project would consist of a 280,000-square-foot mixed-use center featuring 140,000 square feet of retail uses, 35,000 square feet of office uses, and 105 apartments (1,000 square feet each). The Major 1 retail space would not be developed under this alternative. A new land use designation and rezone would be requested to Commercial (C).

2.5 - Scoping Process and Areas of Controversy

Pursuant to CEQA Guidelines Section 15123(b), a summary section must address areas of controversy known to the lead agency (El Dorado County), including issues raised by agencies and the public, and it must also address issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

A Notice of Preparation (NOP) for the Proposed Project was issued on January 4, 2008. The NOP described the original concept for the Proposed Project and issues to be addressed in the EIR. The NOP was distributed to the State Clearinghouse, responsible agencies, and other interested parties for

a public review period of more than 30-days, extending from January 4, 2008, through February 3, 2008. Appendix A includes the Notice of Preparation.

Two EIR scoping meetings, advertised in the NOP, were held on January 24, 2008, at the El Dorado County Planning Commission Hearing Room located at 2850 Fairlane Court in Placerville, California. Each scoping meeting included an introductory presentation by El Dorado County Planning staff and consultant team and provided time for public comment, questions, and discussion.

The NOP that was issued in 2008 described the relocation of the County's Materials Recovery Facility (MRF), which is no longer included in the Proposed Project. Relocation of the MRF would have allowed the DDRC to be developed on a contiguous 44.76 acres. However, strong public opposition to the MRF relocation halted any further consideration of this component of the Project, which is due to a number of factors but specifically the MRF's proximity to residences and the potential resulting environmental impacts.

The Proposed Project assumes that the Diamond Springs Parkway would be constructed as a two-lane roadway prior to construction of the DDRC. The County General Plan Circulation Map (El Dorado County 2004) identifies the Parkway as a planned roadway, and the Parkway is part of DOT's 2010 Capital Improvement Plan (CIP), which includes the County's Traffic Impact Mitigation (TIM) Fee Program. The Diamond Springs Parkway is a separately Proposed Project and a separate EIR has been prepared for the Diamond Springs Parkway, under the direction of the El Dorado County's Department of Transportation.

2.5.1 - NOP Comments and Issues

No comments were received during the project NOP circulation period.

2.6 - Project Review and CEQA Process

Upon completion of this Draft EIR, the County of El Dorado filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the Draft EIR, including the technical appendices, is available for review at the El Dorado County Development Services Department and the El Dorado County Library. The address for each location is provided below.

County of El Dorado
Development Services Department, Planning Services
2850 Fairlane Court
Placerville, CA 95667
Phone: 530.621.5355

El Dorado County Main Library
345 Fair Lane
Placerville, CA 95667
Phone: 530.621.5540

The Draft EIR public comment period will end no sooner than 45 calendar days from the date on the cover of this document. The comment period end date is identified in the Notice of Availability for this Draft EIR. Agencies, organizations, and interested parties have the opportunity to comment on the Draft EIR during the 45-day public review period. Written comments on this Draft EIR should be addressed to:

Mel Pabalinas, Senior Planner
El Dorado County Development Services
2850 Fairlane Court, Building "C"
Placerville, CA 95667
Phone: 530-621-5363
E-mail: rommel.pabalinas@edcgov.us

Written comments submitted via electronic mail must either be included in the body of the text of the email message or as an attached file in Microsoft® Word or Adobe® PDF format. Please include the following phrase in the email subject line "Diamond Dorado Retail Center Draft EIR Comments." Copies of all written comments will be included in the Final EIR and will become a part of the publicly accessible administrative record.

The public will have the opportunity to provide written and oral comments on the Draft EIR at a public hearing. The date, time, and location of the public hearing are identified in the Notice of Availability for this Draft EIR.

Following receipt of public comments on the Draft EIR, the County will prepare a Final EIR that includes all responses to comments and any necessary revisions to the text of the Draft EIR. The Final EIR will be made available for review by commenting agencies at least 10 days prior to the public hearing before the County of El Dorado on the Project, at which the certification of the Final EIR will be considered. The County must certify the Final EIR prior to project approval.

2.7 - Summary of Environmental Impacts and Mitigation Measures

Table 2-1 below summarizes the impacts, mitigation measures, and resulting level of significance after mitigation for the relevant environmental issue areas evaluated for the Proposed Project. The table is intended to provide an overview; narrative discussions for the issue areas are included in the corresponding section of this EIR. Table 2-1 is included in the EIR as required by CEQA Guidelines Section 15123(b)(1).

2.7.1 - Summary of Additional CEQA-Required Analysis

Cumulative Impacts

This Draft Environmental Impact Report (Draft EIR) provides an analysis of the overall cumulative impacts of the proposed Diamond Dorado Retail Project taken together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the California Environmental Quality Act Guidelines (CEQA Guidelines).

As discussed in Section 6, Other CEQA Required Sections, of this Draft EIR, the Proposed Project would not result in cumulative impacts. Refer to Section 6 of this Draft EIR for further discussion.

Growth Inducing Impacts

The Proposed Project does not contain any residential uses and, therefore, would not directly induce population growth through the provision of new dwelling units. Given the nature of the job opportunities and the availability of labor, it would be expected that the Proposed Project's employment opportunities would not result in direct or indirect population growth. The project site is surrounded by developed land uses and urban infrastructure (e.g., potable water, electricity, wastewater) that exist close to the project site. As such, no major infrastructure expansions would be required, and development of the Proposed Project would not remove a physical barrier to growth through the extension of urban infrastructure to unserved areas. The Proposed Project would be required to expand Diamond Springs Parkway and Diamond Road (SR-49) from two-lane to four-lane roadways. However, the expansion of the Diamond Springs Parkway is considered in the County's Capital Improvement Plan and General Plan to accommodate expected future growth, the impacts of which have already been considered in the County's General Plan EIR. As such, and as discussed in the Diamond Springs Parkway EIR, expansion of the Diamond Springs Parkway would not be considered growth inducing beyond what is already accounted for in the General Plan. Expansion of Diamond Road (SR-49) to a four-lane roadway is not contemplated in the County's Capital Improvement Plan or General Plan, however, the expanded Diamond Road (SR-29) would not provide access to previously inaccessible land. Any development on adjacent lands would be required to abide by the County's General Plan land use designations, the buildout impacts of which were evaluated in the General Plan EIR. For these reasons, the Proposed Project would not indirectly induce substantial population growth.

However, the Proposed Project requires the approval of a General Plan Amendment and Rezone to change the existing land use designation and zoning from Industrial (I) to Commercial (C)/General Commercial-Planned Development (CG-PD). Approval of the Proposed Project and land use designations, may encourage neighboring lands that are currently undeveloped or underutilized to develop further. In this respect, the Proposed Project would be growth inducing, by being a catalyst for the development of a previously underutilized industrial area, or in other words, by leading to the construction of additional developments in the immediate vicinity.

Table 2-1: Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.1 - Aesthetics, Light, and Glare			
Impact AES-1: The Proposed Project has the potential to substantially degrade the visual character of the project site or its surroundings.	Potentially significant impact.	MM AES-1: The Project applicant shall complete a final landscaping plan for review and approval by County staff that includes vegetation that appropriately screens views of the Material Recovery Facility (MRF) access road and sound barrier as seen from the residence at the corner of Lime Kiln Road and Lime Plant Road. Screening vegetation shall be located along the access road and sound barrier and be of a type and species that shall provide year-round visual screening.	Less than significant impact.
Impact AES-2: Implementation of the Proposed Project would result in the introduction of new sources of substantial light and glare.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Section 4.2 - Air Quality			
<i>Onsite Improvements</i>			
Impact AIR-1: The Project would conflict with or obstruct implementation of the applicable air quality plan.	Potentially significant impact.	Implement Mitigation Measures AIR-3a through AIR-3d. MM AIR-3a: In order to reduce the Project's construction emissions to less than significant, the project developer shall use low-volatile organic compound (VOC) paints with a maximum of 50 grams per liter VOC content. More information about low-VOC paints and compliant paint products can be found at http://www.aqmd.gov/prdas/brochures/paintguide.html .	Significant and unavoidable impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>MM AIR-3b: Shower and locker facilities shall be installed in major anchor buildings, as well commercial, office, and industrial buildings to encourage employees to bike and/or walk to work. A minimum of three lockers for every 25 employees shall be installed. Each building shall have two showers installed.</p> <p>MM AIR-3c: The Project shall install display cases or kiosks displaying transportation information (ridesharing information, transit schedules, bicycle route and path information) in a prominent area accessible to employees and visitors.</p> <p>MM AIR-3d: The project buildings shall be designed and built to achieve an average of 20 percent efficiency above current Title 24 requirements to increase energy efficiency and reduce emissions associated with electricity generation. The method for achieving the 20 percent efficiency will depend on project specifics not known at this time, such as insulation values.</p>	
Impact AIR-2: The Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact AIR-3: The Project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.	Potentially significant impact.	MM AIR-3a: In order to reduce the Project's construction emissions to less than significant, the project developer shall use low-volatile organic compound (VOC) paints with a maximum of 50 grams per liter VOC content. More information about low-VOC paints and compliant paint products can be found at http://www.aqmd.gov/prdas/brochures/paintguide.html .	Significant and unavoidable impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>MM AIR-3b: Shower and locker facilities shall be installed in major anchor buildings, as well commercial, office, and industrial buildings to encourage employees to bike and/or walk to work. A minimum of three lockers for every 25 employees shall be installed. Each building shall have two showers installed.</p> <p>MM AIR-3c: The Project shall install display cases or kiosks displaying transportation information (ridesharing information, transit schedules, bicycle route and path information) in a prominent area accessible to employees and visitors.</p> <p>MM AIR-3d: The project buildings shall be designed and built to achieve an average of 20 percent efficiency above current Title 24 requirements to increase energy efficiency and reduce emissions associated with electricity generation. The method for achieving the 20 percent efficiency will depend on project specifics not known at this time, such as insulation values.</p> <p>MM AIR-3e: The project buildings shall install only Energy Star heating and cooling appliances.</p> <p>MM AIR-3f: The Project shall install only Energy Star-labeled roof materials.</p>	
Impact AIR-4: The Project would not expose sensitive receptors to substantial pollutant concentrations.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact AIR-5: The Project would not create objectionable odors affecting a substantial number of people.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact AIR-6: The Project would generate greenhouse gas emission, either directly or indirectly, that may have a significant impact on the environment.</p>	<p>Potentially significant impact.</p>	<p>Implement Mitigation Measures PSU-3a, PSU-3b, PSU-6a, PSU-6b, AIR-3b, AIR-3c, and AIR-3d.</p> <p>PSU-3a: Prior to issuance of building permits, the Project applicant shall submit final landscaping plans in accordance with the plans submitted as part of the project application to El Dorado County for review and approval. The final landscaping plans shall be in accordance with the Model Landscape and Water Conservation Standards and include the following outdoor irrigation water conservation measures:</p> <ul style="list-style-type: none"> • Separate metering of irrigation water • Drought-resistant vegetation • Irrigation systems employing at least four of the following features: <ul style="list-style-type: none"> - Drip irrigation - Low-precipitation-rate sprinklers - Bubbler/soaker systems - Programmable irrigation controllers with automatic rain shutoff sensors - Matched-precipitation-rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system - Conservative sprinkler spacings that minimize overspray onto paved surfaces - Hydrozones that keep plants with similar water needs in the same irrigation zone • Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration 	<p>Significant and unavoidable impact.</p>

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention <p>MM PSU-3b: Prior to issuance of building permits, the Project applicant shall submit final building plans to El Dorado County for review and approval that identify the following indoor water conservation measures:</p> <ul style="list-style-type: none"> Separate metering of domestic water Low-flow or ultra-low-flow toilets and urinals Faucet aerators or low-flow faucets in bathrooms <p>MM PSU-6a: Prior to issuance of building permits, the Project applicant shall retain a qualified contractor to perform construction and demolition debris recycling. The contractor shall be approved by El Dorado County. The Project applicant shall provide documentation to the satisfaction of El Dorado County Ordinance Code Chapter 8.43, demonstrating that construction and demolition debris has been recycled.</p> <p>MM PSU-6b: Prior to issuance of the final certificate of occupancy, the Project applicant shall install onsite facilities necessary to collect and store recyclable materials and green waste. Recycling collection facilities located in public spaces shall be of high-quality design and provide signage indicating accepted materials. All onsite recycling and green waste storage facilities shall be screened from public view.</p> <p>MM AIR-3b: Shower and locker facilities shall be installed in major anchor buildings, as well commercial, office, and industrial buildings to encourage employees to bike and/or walk to work.</p>	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>A minimum of three lockers for every 25 employees shall be installed. Each building shall have two showers installed.</p> <p>MM AIR-3c: The Project shall install display cases or kiosks displaying transportation information (ridesharing information, transit schedules, bicycle route and path information) in a prominent area accessible to employees and visitors.</p> <p>MM AIR-3d: The project buildings shall be designed and built to achieve an average of 20 percent efficiency above current Title 24 requirements to increase energy efficiency and reduce emissions associated with electricity generation. The method for achieving the 20 percent efficiency will depend on project specifics not known at this time, such as insulation values.</p>	
<p>Impact AIR-7: The Project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.</p>	Potentially significant impact.	<p>MM AIR-7: Project buildings shall be constructed to provide structural support adequate to install solar panels at a later time. Components of structural support include roof design adequate to bear the load of solar panels as well as electrical infrastructure adequate to support solar panels.</p> <p>In addition, implement Mitigation Measures PSU-3a, PSU-3b, PSU-6a, PSU-6b, and AIR-3d.</p> <p>MM PSU-3a: Prior to issuance of building permits, the Project applicant shall submit final landscaping plans in accordance with the plans submitted as part of the project application to El Dorado County for review and approval. The final landscaping plans shall be in accordance with the Model Landscape and Water Conservation Standards and include the following outdoor irrigation water conservation measures:</p>	Significant and unavoidable impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Separate metering of irrigation water • Drought-resistant vegetation • Irrigation systems employing at least four of the following features: <ul style="list-style-type: none"> - Drip irrigation - Low-precipitation-rate sprinklers - Bubbler/soaker systems - Programmable irrigation controllers with automatic rain shutoff sensors - Matched-precipitation-rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system - Conservative sprinkler spacings that minimize overspray onto paved surfaces - Hydrozones that keep plants with similar water needs in the same irrigation zone • Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration • Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention <p>MM PSU-3b: Prior to issuance of building permits, the Project applicant shall submit final building plans to El Dorado County for review and approval that identify the following indoor water conservation measures:</p> <ul style="list-style-type: none"> • Separate metering of domestic water • Low-flow or ultra-low-flow toilets and urinals • Faucet aerators or low-flow faucets in bathrooms 	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>MM PSU-6a: Prior to issuance of building permits, the Project applicant shall retain a qualified contractor to perform construction and demolition debris recycling. The contractor shall be approved by El Dorado County. The Project applicant shall provide documentation to the satisfaction of El Dorado County Ordinance Code Chapter 8.43, demonstrating that construction and demolition debris has been recycled.</p> <p>MM PSU-6b: Prior to issuance of the final certificate of occupancy, the Project applicant shall install onsite facilities necessary to collect and store recyclable materials and green waste. Recycling collection facilities located in public spaces shall be of high-quality design and provide signage indicating accepted materials. All onsite recycling and green waste storage facilities shall be screened from public view.</p> <p>MM AIR-3d: The project buildings shall be designed and built to achieve an average of 20 percent efficiency above current Title 24 requirements to increase energy efficiency and reduce emissions associated with electricity generation. The method for achieving the 20 percent efficiency will depend on project specifics not known at this time, such as insulation values.</p>	
<i>Offsite Improvements</i>			
Impact AIR-1: The Project would conflict with or obstruct implementation of the applicable air quality plan.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact AIR-2: The Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact AIR-3: The Project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact AIR-4: The Project would not expose sensitive receptors to substantial pollutant concentrations.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact AIR-5: The Project would not create objectionable odors affecting a substantial number of people.	No impact.	No mitigation is necessary.	No impact.
Impact AIR-6: The Project would generate greenhouse gas emission, either directly or indirectly, that may have a significant impact on the environment.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact AIR-7: The Project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Section 4.3 - Biological Resources			
<i>Onsite Improvements</i>			
Impact BIO-1: The Project has the potential to impact species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service.	Potentially significant impact.	MM BIO-1: If grading or tree removal is proposed during the avian nesting season (March 1 to October 1), a focused survey for nesting migratory birds shall be conducted by a qualified biologist to identify active nests on the project study area. The survey will be conducted no less than 14 days and no more	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>than 30 days prior to the beginning of grading or tree removal. The results of the survey will be summarized in a written report prior to the beginning of grading. If nesting birds are found during the focused survey, no grading or tree removal will occur within 250 feet of an active nest (500 feet for raptors) until the young have fledged (as determined by a qualified biologist) or until the Project applicant receives written authorization from California Department of Fish and Game (CDFG) to proceed. Construction activity may occur within the 250-foot buffer area at the discretion of the monitoring biologist. If nest trees are unavoidable, they shall be removed during the non-breeding season. If nesting white-tailed kites are found during the focused survey, no grading or tree removal will occur within 500 feet of an active nest until the young have fledged (as determined by a qualified biologist) and the Project applicant receives written authorization from CDFG to proceed. If nest trees are unavoidable, they shall be removed only during the non-breeding season.</p>	
<p>Impact BIO-2: The Project has the potential to impact federally protected wetlands as defined by Section 404 of the Clean Water Act.</p>	<p>Potentially significant impact.</p>	<p>MM BIO-2a: Riparian habitat shall be avoided to the maximum extent feasible. Drainage features at the project site identified as jurisdictional Waters of the U. S., including wetlands, would be filled as a result of the Project and would require authorization of a Section 404 Permit from the United States Army Corps of Engineers (USACE), and a Steam Bed Alteration Agreement shall be obtained from California Department of Fish and Game (CDFG), as appropriate. Prior to initiation of any ground clearing or other construction activities, the Project applicant shall obtain authorization of a Section 404</p>	<p>Less than significant impact.</p>

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Permit from USACE and a CDFG Section 1602 Lake and Streambed Alteration Agreement shall be prepared and approved by both USACE and CDFG. Mitigation required for direct and indirect impacts to all areas under the jurisdiction of federal and state resource agencies shall be carried out in accordance with the conditions of the Section 404 Permit and Lake and Streambed Alteration Agreement.</p> <p>MM BIO-2b: As part of the permitting process, mitigation of impacts to jurisdictional Waters of the U.S., including wetlands, shall be identified and implemented, as described below. The acreage shall be replaced or rehabilitated on a “no-net-loss” basis in accordance with United States Army Corps of Engineers (USACE) regulations. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to USACE. Habitat compensation shall also be in accordance with El Dorado County which has adopted a “no-net-loss” policy under General Plan Policy 7.3.3.2; this policy allows wetland habitat compensation on- or offsite, but at a minimum 1:1 ratio. Also in accordance with General Plan Policy 7.3.3.2, a wetland study and mitigation monitoring program shall be submitted to the County and concerned state and federal agencies (e.g., USACE, California Department of Fish and Game) for review prior to permit approval.</p> <p>MM BIO-2c: All grading plans shall include adequate setback for preserved seasonal and perennial drainages. Measures to minimize erosion and runoff into seasonal and perennial drainages that are preserved shall also be included in all grading plans. Appropriate runoff controls such as berms,</p>	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		storm gates, detention basins, overflow collection areas, filtration systems, and sediment traps shall be implemented to control siltation and the potential discharge of pollutants into preserved drainages.	
Impact BIO-3: Project implementation will conflict with local policies or ordinances protecting biological resources.	Potentially significant impact.	<p>MM BIO-3a: Prior to the issuance of grading permits, the applicant shall provide a final grading plan to El Dorado County. The final grading plan shall indicate the size and location of all onsite oak trees and will indicate which trees are to be removed or retained as a part of the Proposed Project. The applicant shall comply with the Oak Woodland Management Plan (OWMP) by mitigating for oak woodland canopy removed in accordance with either Option A (On-Site Mitigation, Replanting and Replacement), Option B (Conservation Fund In-Lieu Fee), or a combination of both options. As outlined in the OWMP, a 1:1 mitigation ratio shall be applied to the oak canopy removed that falls below the threshold in Table 1 of the El Dorado County General Plan Policy 7.4.4.4, while a 2:1 mitigation ratio shall be applied to the remaining oak canopy removed.</p> <p>MM BIO-3b: Any oak trees on the project site that are not removed, and any oak trees on adjacent properties that are within 200 feet of grading activity shall be protectively fenced 5 feet beyond the dripline and root zone of each tree (as determined by a certified arborist). This fence, which is meant to prevent activities that result in soil compaction beneath the canopy or over the root zone, shall be maintained until all construction activities are complete. No grading, trenching, or movement of construction equipment shall be allowed to occur within fenced areas. Protection for oak trees on</p>	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>slopes and hillsides will include installation of a silt fence. A silt fence shall be installed at the upslope base of the protective fence to prevent any soil drifting down over the root zone.</p> <p>MM BIO-3c: To ensure that proposed onsite replacement trees survive, a mitigation monitoring plan, including provisions for necessary replacement of trees, shall be incorporated into the preservation and replacement plan. Detailed performance standards shall be included to ensure that an 80 percent survival rate is achieved over a 5-year period. Annual reports identifying planting success and monitoring efforts shall be submitted to El Dorado County Planning Services and California Department of Fish and Game. During monitoring, the following information shall be evaluated: average tree height, percent of tree cover, tree density, percent of woody shrub cover, seedling recruitment, and invasion by non-native species. Temporary irrigation equipment shall be installed to facilitate sapling survival during the first several years of growth. During the revegetation process, tree survival will be maximized by using deer screens or other maintenance measures as recommended by a certified arborist.</p>	
<i>Offsite Improvements</i>			
Impact BIO-1: The Project has the potential to impact species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service.	Potentially significant impact.	<p>Implement Mitigation Measure BIO-1.</p> <p>MM BIO-1: If grading or tree removal is proposed during the avian nesting season (March 1 to October 1), a focused survey for nesting migratory birds shall be conducted by a qualified biologist to identify active nests on the project study area. The survey will be conducted no less than 14 days and no more</p>	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>than 30 days prior to the beginning of grading or tree removal. The results of the survey will be summarized in a written report prior to the beginning of grading. If nesting birds are found during the focused survey, no grading or tree removal will occur within 250 feet of an active nest (500 feet for raptors) until the young have fledged (as determined by a qualified biologist) or until the Project applicant receives written authorization from California Department of Fish and Game (CDFG) to proceed. Construction activity may occur within the 250-foot buffer area at the discretion of the monitoring biologist. If nest trees are unavoidable, they shall be removed during the non-breeding season. If nesting white-tailed kites are found during the focused survey, no grading or tree removal will occur within 500 feet of an active nest until the young have fledged (as determined by a qualified biologist) and the Project applicant receives written authorization from CDFG to proceed. If nest trees are unavoidable, they shall be removed only during the non-breeding season.</p>	
Impact BIO-2: The Project has the potential to impact federally protected wetlands as defined by Section 404 of the Clean Water Act.	No impact.	No mitigation is necessary.	No impact.
Impact BIO-3: Project implementation will conflict with local policies or ordinances protecting biological resources.	Potentially significant impact.	<p>Implement Mitigation Measures BIO-3a through BIO-3c.</p> <p>MM BIO-3a: Prior to the issuance of grading permits, the applicant shall provide a final grading plan to El Dorado County. The final grading plan shall indicate the size and location of all onsite oak trees and will indicate which trees are to be removed</p>	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>or retained as a part of the Proposed Project. The applicant shall comply with the Oak Woodland Management Plan (OWMP) by mitigating for oak woodland canopy removed in accordance with either Option A (On-Site Mitigation, Replanting and Replacement), Option B (Conservation Fund In-Lieu Fee), or a combination of both options. As outlined in the OWMP, a 1:1 mitigation ratio shall be applied to the oak canopy removed that falls below the threshold in Table 1 of the El Dorado County General Plan Policy 7.4.4.4, while a 2:1 mitigation ratio shall be applied to the remaining oak canopy removed.</p> <p>MM BIO-3b: Any oak trees on the project site that are not removed, and any oak trees on adjacent properties that are within 200 feet of grading activity shall be protectively fenced 5 feet beyond the dripline and root zone of each tree (as determined by a certified arborist). This fence, which is meant to prevent activities that result in soil compaction beneath the canopy or over the root zone, shall be maintained until all construction activities are complete. No grading, trenching, or movement of construction equipment shall be allowed to occur within fenced areas. Protection for oak trees on slopes and hillsides will include installation of a silt fence. A silt fence shall be installed at the upslope base of the protective fence to prevent any soil drifting down over the root zone.</p> <p>MM BIO-3c: To ensure that proposed onsite replacement trees survive, a mitigation monitoring plan, including provisions for necessary replacement of trees, shall be incorporated into the preservation and replacement plan. Detailed performance</p>	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		standards shall be included to ensure that an 80 percent survival rate is achieved over a 5-year period. Annual reports identifying planting success and monitoring efforts shall be submitted to El Dorado County Planning Services and California Department of Fish and Game. During monitoring, the following information shall be evaluated: average tree height, percent of tree cover, tree density, percent of woody shrub cover, seedling recruitment, and invasion by non-native species. Temporary irrigation equipment shall be installed to facilitate sapling survival during the first several years of growth. During the revegetation process, tree survival will be maximized by using deer screens or other maintenance measures as recommended by a certified arborist.	
Section 4.4 - Cultural Resources			
<i>Onsite Improvements</i>			
Impact CUL-1: Project implementation could cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.	Potentially significant impact.	MM CUL-1: If a potentially significant cultural resource is encountered during subsurface earthwork activities for the Project, all construction activities within a 100-foot radius of the find shall cease until a qualified archaeologist determines whether the resource requires further study. El Dorado County shall require the Project applicant to include a standard inadvertent discovery clause in every construction contract and inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded and the State Historic Preservation Officer and Indian tribes with concerns about the property, and the Advisory Council on Historic Preservation will be notified within 48 hours in compliance with 36 CFR.800.13(b)(3). Potential resources will be	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, glass, ceramic, wood, or shell artifacts; fossils; or features including hearths, structural remains, or historic dumpsites. If the resource is determined significant under CEQA, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan that will capture those categories of data for which the site is significant. The archaeologist shall also perform appropriate technical analysis, prepare a comprehensive report and file it with the appropriate Information Center, and provide for the permanent curation of the recovered materials. Construction activities within the 100-foot radius may continue once all appropriate recovery measures have been completed.	
Impact CUL-2: The Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.	Potentially significant impact.	Implement Mitigation Measure CUL-1. MM CUL-1: If a potentially significant cultural resource is encountered during subsurface earthwork activities for the Project, all construction activities within a 100-foot radius of the find shall cease until a qualified archaeologist determines whether the resource requires further study. El Dorado County shall require the Project applicant to include a standard inadvertent discovery clause in every construction contract and inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded and the State Historic Preservation Officer and Indian tribes with concerns about the property, and the Advisory Council on Historic Preservation will be notified within 48 hours in compliance with	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		36 CFR.800.13(b)(3). Potential resources will be evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, glass, ceramic, wood, or shell artifacts; fossils; or features including hearths, structural remains, or historic dumpsites. If the resource is determined significant under CEQA, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan that will capture those categories of data for which the site is significant. The archaeologist shall also perform appropriate technical analysis, prepare a comprehensive report and file it with the appropriate Information Center, and provide for the permanent curation of the recovered materials. Construction activities within the 100-foot radius may continue once all appropriate recovery measures have been completed.	
Impact CUL-3: The Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact CUL-4: Project implementation would potentially disturb human remains, including those interred outside of formal cemeteries.	Potentially significant impact.	MM CUL-4: If human remains are encountered during earth-disturbing activities for the Project, all work in the adjacent area shall stop immediately and the El Dorado County Coroner's office shall be notified. If the remains are determined to be Native American in origin, the Native American Heritage Commission shall be notified and will identify the Most Likely Descendent, who will be consulted for recommendations for treatment of the discovered remains.	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<i>Offsite Improvements</i>			
<p>Impact CUL-1: Project implementation could cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.</p>	Potentially significant impact.	<p>Implement Mitigation Measure CUL-1.</p> <p>MM CUL-1: If a potentially significant cultural resource is encountered during subsurface earthwork activities for the Project, all construction activities within a 100-foot radius of the find shall cease until a qualified archaeologist determines whether the resource requires further study. El Dorado County shall require the Project applicant to include a standard inadvertent discovery clause in every construction contract and inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded and the State Historic Preservation Officer and Indian tribes with concerns about the property, and the Advisory Council on Historic Preservation will be notified within 48 hours in compliance with 36 CFR.800.13(b)(3). Potential resources will be evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, glass, ceramic, wood, or shell artifacts; fossils; or features including hearths, structural remains, or historic dumpsites. If the resource is determined significant under CEQA, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan that will capture those categories of data for which the site is significant. The archaeologist shall also perform appropriate technical analysis, prepare a comprehensive report and file it with the appropriate Information Center, and provide for the permanent curation of the recovered materials. Construction</p>	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		activities within the 100-foot radius may continue once all appropriate recovery measures have been completed.	
Impact CUL-2: The Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.	Potentially significant impact.	<p>Implement Mitigation Measure CUL-1.</p> <p>MM CUL-1: If a potentially significant cultural resource is encountered during subsurface earthwork activities for the Project, all construction activities within a 100-foot radius of the find shall cease until a qualified archaeologist determines whether the resource requires further study. El Dorado County shall require the Project applicant to include a standard inadvertent discovery clause in every construction contract and inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded and the State Historic Preservation Officer and Indian tribes with concerns about the property, and the Advisory Council on Historic Preservation will be notified within 48 hours in compliance with 36 CFR.800.13(b)(3). Potential resources will be evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, glass, ceramic, wood, or shell artifacts; fossils; or features including hearths, structural remains, or historic dumpsites. If the resource is determined significant under CEQA, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan that will capture those categories of data for which the site is significant. The archaeologist shall also perform appropriate technical analysis, prepare a comprehensive report and file it with the appropriate</p>	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Information Center, and provide for the permanent curation of the recovered materials. Construction activities within the 100-foot radius may continue once all appropriate recovery measures have been completed.	
Impact CUL-3: The Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact CUL-4: Project implementation would potentially disturb human remains, including those interred outside of formal cemeteries.	Potentially significant impact.	Implement Mitigation Measure CUL-4. MM CUL-4: If human remains are encountered during earth-disturbing activities for the Project, all work in the adjacent area shall stop immediately and the El Dorado County Coroner's office shall be notified. If the remains are determined to be Native American in origin, the Native American Heritage Commission shall be notified and will identify the Most Likely Descendent, who will be consulted for recommendations for treatment of the discovered remains.	Less than significant impact.
Section 4.5 - Geology, Soils, and Seismicity			
<i>Onsite Improvements</i>			
Impact GEO-1: The Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving the 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.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact GEO-2: The Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving strong seismic ground shaking.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact GEO-3: The Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving ground failure or liquefaction.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact GEO-4: The Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving landslides.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact GEO-5: The Project could result in substantial soil erosion or the loss of topsoil.	Potentially significant impact.	<p>Implement Mitigation Measure HYD-1.</p> <p>MM HYD-1: Prior to the issuance of grading permits for the Proposed Project, the applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the County of El Dorado Department of Transportation that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements:</p> <ul style="list-style-type: none"> • Temporary erosion control measures shall be employed for disturbed areas. • No disturbed surfaces will be left without erosion control measures in place during the winter and spring months. 	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the Central Valley Regional Water Quality Control Board to determine adequacy of the measure. Testing for increased stormwater pH levels as a result of contact with onsite lime deposits. In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season. 	
Impact GEO-6: The Project would 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	Potentially significant impact.	<p>MM GEO-6a: Prior to issuance of a building permit, the County Building Official shall ensure that the construction drawings contain the following measures:</p> <p>a). Type V cement, and a minimum water/cement ratio of 0.50 and minimum compressive strength of 4,000 psi in accordance with current CBC and industry standards shall be used in the construction of the Project.</p>	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>b). Plastic pipes or other non-ferrous conduits shall be utilized for all underground utilities installed on the project site.</p> <p>Any plans submitted by the Project applicant in support of a building permit shall specifically note the requirements of this mitigation measure.</p> <p>MM GEO-6b: The grading plans for each grading permit shall reflect conformance with the recommendations included in the Geotechnical Engineering Study on the proposed project site prepared by Youngdahl Consulting Group, Inc., titled “Geotechnical Engineering Study for Diamond Dorado Commercial Center Hwy 49 and (Future) Diamond Springs Pkwy, Placerville, California” (included in Appendix G of this EIR). Design, grading, and construction shall be performed in accordance with the requirements of the California Building Code applicable at the time of grading, appropriate local grading regulations, and the recommendations of the Project’s geotechnical consultant as summarized in the Geotechnical Engineering Study.</p>	
Impact GEO-7: The Project would not be located on expansive soil, as defined in Section 1803.5 of the 2010 California Building Code, creating substantial risks to life or property.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
<i>Offsite Improvements</i>			
Impact GEO-1: The Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving the rupture	Less than significant impact.	No mitigation is necessary.	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
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.			
Impact GEO-2: The Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving strong seismic ground shaking.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact GEO-3: The Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving ground failure or liquefaction.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact GEO-4: The Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving landslides.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact GEO-5: The Project could result in substantial soil erosion or the loss of topsoil.	Potentially significant impact.	Implement Mitigation Measure HYD-1. MM HYD-1: Prior to the issuance of grading permits for the Proposed Project, the applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the County of El Dorado Department of Transportation that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements:	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Temporary erosion control measures shall be employed for disturbed areas. • No disturbed surfaces will be left without erosion control measures in place during the winter and spring months. • Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. • The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. • BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the Central Valley Regional Water Quality Control Board to determine adequacy of the measure. • Testing for increased stormwater pH levels as a result of contact with onsite lime deposits. • In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season. 	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact GEO-6: The Project would 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact GEO-7: The Project would not be located on expansive soil, as defined in Section 1803.5 of the 2010 California Building Code, creating substantial risks to life or property.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Section 4.6 - Hazards and Hazardous Materials			
Impact HAZ-1: The Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions.	Potentially significant impact.	<p>Implement Mitigation Measure HYD-1.</p> <p>MM HYD-1: Prior to the issuance of grading permits for the Proposed Project, the applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the County of El Dorado Department of Transportation that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements:</p> <ul style="list-style-type: none"> • Temporary erosion control measures shall be employed for disturbed areas. • No disturbed surfaces will be left without erosion control measures in place during the winter and spring months. • Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. 	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the Central Valley Regional Water Quality Control Board to determine adequacy of the measure. Testing for increased stormwater pH levels as a result of contact with onsite lime deposits. In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season. 	
Impact HAZ-2: The Project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment.	No impact.	No mitigation is necessary.	No impact.
Impact HAZ-3: The development of the Proposed Project has the potential to result in the exposure of persons or the environment to hazardous materials associated with past and current uses of the project site.	Potentially significant impact.	MM HAZ-3a: Caltrans standard special provisions for removal of the existing yellow thermoplastic and yellow paint used for pavement markings throughout the project area shall be implemented, and disposal of these materials will occur at a Class 1 disposal facility	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>in accordance with Department of Toxic Substance Control's hazardous materials laws and regulations. All work shall be conducted in accordance with applicable construction worker health and safety requirements, including CalOSHA Construction Safety Orders for lead (Title 8 CCR Section 1532.1). These requirements may include air monitoring during construction, worker training, and preparation of a Lead Compliance Plan prior to construction.</p> <p>MM HAZ-3b: A preliminary site investigation will be conducted prior to construction to identify levels of aerially deposited lead (ADL) in soils within 30 feet of SR-49 that are to be disturbed during project construction. Soil samples shall be tested prior to construction for total and/or soluble lead to properly classify the soils and ensure that all necessary soil management and disposal procedures are followed.</p> <p>If ADL is encountered, the Project applicant or its contractor will prepare a Lead Compliance Plan in compliance with Title 8, California Code of Regulations, Section 1532.1 "Lead." The Plan will include monitoring, and average ADL concentrations shall not exceed 1.5 microgram per cubic meter of air per day. If concentrations exceed this level, the contractor shall stop work and modify the work to prevent release of ADL. The Plan will also include safety training for construction personnel. Excavation, reuse, and disposal of material with ADL shall be in conformance with all rules and regulations of responsible federal and State agencies.</p> <p>MM HAZ-3c: Prior to the start of project activities, the Project applicant will contact PG&E to determine the presence or absence of potentially</p>	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>polychlorinated biphenyls (PCB)-containing transformers within the project site. If PCB containing transformers are located on the Project and require disturbance or removal, the Project applicant will adhere to PG&E's standard handling procedures that include safety measures to contain PCBs substances and implement proper disposal.</p> <p>MM HAZ-3d: A Registered Environmental Assessor (REA) that is certified by the California Department of Toxic Substances Control shall provide onsite monitoring of construction activities for parcels formerly part of the Diamond Lime Plant (APNs 051-250-51 and 54) to observe for the potential indication of hazardous materials releases, disposal areas or contaminated soils. If the REA identifies environmental conditions that require remediation or require further investigation, construction activities shall cease to allow the Project applicant to prepare and submit a site remediation permit application and draft work plan to the El Dorado County Department of Environmental Management. To document the implementation of the prescribed mitigation measure, the contracted REA must provide a memorandum of observations to the El Dorado County Department of Environmental Management.</p> <p>In addition, implement Mitigation Measure HYD-1.</p> <p>MM HYD-1: Prior to the issuance of grading permits for the Proposed Project, the applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the County of El Dorado Department of Transportation that identifies specific actions and Best Management Practices</p>	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>(BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements:</p> <ul style="list-style-type: none"> • Temporary erosion control measures shall be employed for disturbed areas. • No disturbed surfaces will be left without erosion control measures in place during the winter and spring months. • Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. • The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. • BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the Central Valley Regional Water Quality Control Board to determine adequacy of the measure. • Testing for increased stormwater pH levels as a result of contact with onsite lime deposits. • In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall 	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.	
Impact HAZ-4: The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact HAZ-5: The Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires (including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands).	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact HAZ-6: The Project has the potential to expose people to a significant risk of loss, injury, or death resulting from accidental drowning.	Potentially significant impact.	MM HAZ-6: The detention basin constructed as a part of the Diamond Dorado Retail Center shall be designed to protect the safety of any persons coming in contact with the system, including but not limited to avoidance of slopes greater than 3:1, protected outlet structures, safety fencing, and appropriate signage. Fencing shall also be constructed along the unnamed drainage bordering the project site to limit any potential for people to suffer a significant risk of loss, injury, or death resulting from accidental drowning.	Less than significant impact.
Section 4.7 - Hydrology and Water Quality			
<i>Onsite Improvements</i>			
Impact HYD-1: The Project has the potential to violate a water quality standard or waste discharge requirement.	Potentially significant impact.	MM HYD-1: Prior to the issuance of grading permits for the Proposed Project, the applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the County of El Dorado Department of Transportation that identifies specific actions and Best Management Practices	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>(BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements:</p> <ul style="list-style-type: none"> • Temporary erosion control measures shall be employed for disturbed areas. • No disturbed surfaces will be left without erosion control measures in place during the winter and spring months. • Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. • The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. • BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the Central Valley Regional Water Quality Control Board to determine adequacy of the measure. • Testing for increased stormwater pH levels as a result of contact with onsite lime deposits. • In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall 	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.	
Impact HYD-2: The Proposed Project does not have any characteristics that would contribute to groundwater overdraft or interfere with groundwater recharge.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact HYD-3: The Proposed Project does not have the potential to alter the existing drainage pattern which could result in substantial erosion, siltation, or flooding on- or off-site.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact HYD-4: The Project does not have the potential to create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact HYD-5: The Project has the potential to substantially degrade water quality.	Potentially significant impact.	Implement Mitigation Measure HYD-1. MM HYD-1: Prior to the issuance of grading permits for the Proposed Project, the applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the County of El Dorado Department of Transportation that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements: <ul style="list-style-type: none"> • Temporary erosion control measures shall be employed for disturbed areas. 	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • No disturbed surfaces will be left without erosion control measures in place during the winter and spring months. • Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. • The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. • BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the Central Valley Regional Water Quality Control Board to determine adequacy of the measure. • Testing for increased stormwater pH levels as a result of contact with onsite lime deposits. • In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season. 	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<i>Offsite Improvements</i>			
Impact HYD-1: The Project has the potential to violate a water quality standard or waste discharge requirement.	Potentially significant impact.	<p>Implement Mitigation Measure HYD-1.</p> <p>MM HYD-1: Prior to the issuance of grading permits for the Proposed Project, the applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the County of El Dorado Department of Transportation that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements:</p> <ul style="list-style-type: none"> • Temporary erosion control measures shall be employed for disturbed areas. • No disturbed surfaces will be left without erosion control measures in place during the winter and spring months. • Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. • The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. • BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction 	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>or elimination (such as inadvertent petroleum release) is required by the Central Valley Regional Water Quality Control Board to determine adequacy of the measure.</p> <ul style="list-style-type: none"> • Testing for increased stormwater pH levels as a result of contact with onsite lime deposits. • In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season. 	
Impact HYD-2: The Proposed Project does not have any characteristics that would contribute to groundwater overdraft or interfere with groundwater recharge.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact HYD-3: The Proposed Project does not have the potential to alter the existing drainage pattern which could result in substantial erosion, siltation, or flooding on- or off-site.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact HYD-4: The Project does not have the potential to create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact HYD-5: The Project has the potential to substantially degrade water quality.	Potentially significant impact.	<p>Implement Mitigation Measure HYD-1.</p> <p>MM HYD-1: Prior to the issuance of grading permits for the Proposed Project, the applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the County of El</p>	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Dorado Department of Transportation that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements:</p> <ul style="list-style-type: none"> • Temporary erosion control measures shall be employed for disturbed areas. • No disturbed surfaces will be left without erosion control measures in place during the winter and spring months. • Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. • The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. • BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the Central Valley Regional Water Quality Control Board to determine adequacy of the measure. • Testing for increased stormwater pH levels as a result of contact with onsite lime deposits. 	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season. 	
Section 4.8 - Land Use			
Impact LU-1: The Project would not physically divide an established community.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact LU-2: The Project would not conflict with any applicable provisions of the El Dorado County General Plan.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact LU-3: The Project would not conflict with an applicable provision of the El Dorado County Ordinance Code.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact LU-4: The Project would not conflict with any applicable provisions of the Missouri Flat Design Guidelines.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Section 4.9 - Noise			
<i>Onsite Improvements</i>			
Impact NOI-1: The Project has the potential to result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Potentially significant impact.	MM NOI-1: Prior to the issuance of grading permits for the construction of the new Material Recovery Facility access route, the Project applicant shall retain a qualified noise consultant to design an appropriate noise barrier to be constructed along the northern property line of Assessor's Parcel Number (APN) 054-341-04 that is shared with Project applicant's adjoining property (APNs 051-250-12 and 051-250-46). The noise barrier shall be constructed within APNs 051-250-12 and 051-250-	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		46, on the southwestern side of the proposed Material Recovery Facility access road along the top of the road cut. The wall shall not exceed 8 feet in height and be approximately 265 feet in length as recommended by the supplemental analysis performed in conjunction with the Environmental Noise Assessment for the Diamond Dorado Retail Center Project. The final design of the noise barrier shall be based on industry-accepted standards and practices proven to effectively attenuate roadway noise and as applicable to existing conditions at the residence. The design shall be submitted to El Dorado County Planning Services for review and shall be incorporated into the Proposed Project. Within the first month of project operation, noise monitoring shall be conducted by a qualified noise consultant to determine if the noise barrier is providing appropriate noise attenuation. If the appropriate level of noise attenuation is not being provided by the noise barrier, it shall be revised and/or augmented to achieve the required noise attenuation as recommended by the qualified noise consultant.	
Impact NOI-2: The Project would not result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact NOI-3: The Project has the potential to result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Project.	Potentially significant impact.	Implement Mitigation Measure NOI-1. MM NOI-1: Prior to the issuance of grading permits for the construction of the new Material Recovery Facility access route, the Project applicant shall retain a qualified noise consultant to design an appropriate noise barrier to be constructed along the	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		northern property line of Assessor's Parcel Number (APN) 054-341-04 that is shared with Project applicant's adjoining property (APNs 051-250-12 and 051-250-46). The noise barrier shall be constructed within APNs 051-250-12 and 051-250-46, on the southwestern side of the proposed Material Recovery Facility access road along the top of the road cut. The wall shall not exceed 8 feet in height and be approximately 265 feet in length as recommended by the supplemental analysis performed in conjunction with the Environmental Noise Assessment for the Diamond Dorado Retail Center Project. The final design of the noise barrier shall be based on industry-accepted standards and practices proven to effectively attenuate roadway noise and as applicable to existing conditions at the residence. The design shall be submitted to El Dorado County Planning Services for review and shall be incorporated into the Proposed Project. Within the first month of project operation, noise monitoring shall be conducted by a qualified noise consultant to determine if the noise barrier is providing appropriate noise attenuation. If the appropriate level of noise attenuation is not being provided by the noise barrier, it shall be revised and/or augmented to achieve the required noise attenuation as recommended by the qualified noise consultant.	
Impact NOI-4: The Project has the potential to result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the Project.	Potentially significant impact.	MM NOI-4a: Prior to start of construction the Project applicant shall retain a qualified noise consultant to design an appropriate temporary noise barrier to be constructed along the northern property line of APN 054-341-04 that is shared with the Project applicant's adjoining property. The	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		temporary noise barrier shall remain in place until a permanent barrier can be constructed in accordance with Mitigation Measure NOI-1. The design shall be submitted to El Dorado County Planning Services for review and shall be implemented by the Project applicant or its contractors. Within in the first week of the start of project construction, noise monitoring shall be conducted by a qualified noise consultant to determine if the temporary noise barrier is providing appropriate noise attenuation. If the appropriate level of noise attenuation is not being provided by the temporary noise barrier, it shall be revised and/or augmented to achieve the required noise attenuation as recommended by the qualified noise consultant. This temporary barrier shall remain in place until the permanent noise barrier required under Mitigation Measure NOI-1 is constructed.	
<i>Offsite Improvements</i>			
Impact NOI-1: The Project has the potential to result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	No impact.	No mitigation is necessary.	No impact.
Impact NOI-2: The Project would not result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact NOI-3: The Project has the potential to result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Project.	No impact.	No mitigation is necessary.	No impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact NOI-4: The Project has the potential to result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the Project.	Potentially significant impact.	MM NOI-4b: Prior to start of construction the for each roadway improvement section, Project applicant shall retain a qualified noise consultant to review proposed construction activity, the location of the nearest sensitive receptor, and design an appropriate temporary noise barrier for each roadway improvement section that would exceed El Dorado County's maximum allowable construction noise exposure-community residential receivers criteria. The design of each measure shall be submitted to El Dorado County Planning Services for review and shall be implemented by the Project applicant or its contractors. Within in the first week of the start of project construction, noise monitoring shall be conducted by a qualified noise consultant to determine if temporary noise barriers are providing appropriate noise attenuation. If the appropriate level of noise attenuation is not being provided by the temporary noise barriers, they shall be revised and/or augmented to achieve the required noise attenuation as recommended by the qualified noise consultant.	Less than significant impact.
Section 4.10 - Public Services and Utilities			
Impact PSU-1: The Proposed Project may adversely impact fire protection and emergency medical services.	Potentially significant impact.	MM PSU-1a: Prior to the approval of the Improvement Plan for the project site, the Project applicant shall submit to El Dorado Irrigation District a Facility Report Plan that shall address the expansion of waterlines and the specific fire flow requirements. The approved Facility Report Plan shall be incorporated into the Project's site plans. MM PSU-1b: Prior to building permit issuance, the Project applicant shall submit to El Dorado-Diamond Springs Fire District a final site plan for review and approval of appropriate emergency	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		access and building materials as required by the Uniform Fire Code and the El Dorado County General Plan Public Health, Safety and Noise Element. Any revisions provided by El Dorado-Diamond Springs Fire District shall be incorporated into the Proposed Project.	
Impact PSU-2: The Proposed Project may adversely impact police protection.	Potentially significant impact.	MM PSU-2: Prior to full operation of the first retailer located within the Diamond Dorado Retail Center, onsite security patrol shall be established. The security patrol shall monitor and patrol the DDRC's stores and parking areas commensurate with the hours of operation of the business with the longest hours of operation. The security patrol shall act as the first line of defense against criminal activity and nuisances and resolve minor incidents as allowable by law.	Less than significant impact.
Impact PSU-3: The Project would have sufficient water supplies available to serve the Project from existing entitlements and resources.	Potentially significant impact.	MM PSU-3a: Prior to issuance of building permits, the Project applicant shall submit final landscaping plans in accordance with the plans submitted as part of the project application to El Dorado County for review and approval. The final landscaping plans shall be in accordance with the Model Landscape and Water Conservation Standards and include the following outdoor irrigation water conservation measures: <ul style="list-style-type: none"> • Separate metering of irrigation water • Drought-resistant vegetation • Irrigation systems employing at least four of the following features: <ul style="list-style-type: none"> - Drip irrigation - Low-precipitation-rate sprinklers - Bubbler/soaker systems 	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> - Programmable irrigation controllers with automatic rain shutoff sensors - Matched-precipitation-rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system - Conservative sprinkler spacings that minimize overspray onto paved surfaces - Hydrozones that keep plants with similar water needs in the same irrigation zone • Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration • Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention <p>MM PSU-3b: Prior to issuance of building permits, the Project applicant shall submit final building plans to El Dorado County for review and approval that identify the following indoor water conservation measures:</p> <ul style="list-style-type: none"> • Separate metering of domestic water • Low-flow or ultra-low-flow toilets and urinals • Faucet aerators or low-flow faucets in bathrooms 	
Impact PSU-4: The Project would be served by adequate wastewater treatment capacity.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact PSU-5: The Project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact PSU-6: The Project would generate substantial amounts of solid waste during both construction and operations.	Potentially significant impact.	<p>MM PSU-6a: Prior to issuance of building permits, the Project applicant shall retain a qualified contractor to perform construction and demolition debris recycling. The contractor shall be approved by El Dorado County. The Project applicant shall provide documentation to the satisfaction of El Dorado County Ordinance Code Chapter 8.43, demonstrating that construction and demolition debris has been recycled.</p> <p>MM PSU-6b: Prior to issuance of the final certificate of occupancy, the Project applicant shall install onsite facilities necessary to collect and store recyclable materials and green waste. Recycling collection facilities located in public spaces shall be of high-quality design and provide signage indicating accepted materials. All onsite recycling and green waste storage facilities shall be screened from public view.</p>	Less than significant impact.
Impact PSU-7: The Project would not result in the inefficient, unnecessary, or wasteful consumption of energy.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Section 4.11 - Transportation			
<i>Onsite Improvements</i>			
Impact TRANS-1: The Project has the potential to result in an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).	Potentially significant impact.	MM TRANS-1a: Prior to the issuance of building permits, the Project applicant shall be responsible for the addition of an eastbound left-turn lane and traffic signal control at the intersection of Pleasant Valley Road (SR-49) and Forni Road. Because of the close proximity, this intersection shall be coordinated with the proposed signalized Pleasant Valley Road (SR-49) intersection with SR-49 (South). The improvements shall be completed to the satisfaction	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>of the El Dorado County Department of Transportation.</p> <p>MM TRANS-1b: Prior to the issuance of building permits, the Project applicant, at the discretion of El Dorado County General Plan Policy TC-Xg, shall be responsible for the addition of a westbound left-turn lane and traffic signal control at the intersection of Pleasant Valley Road (SR-49) and Patterson Road in one of the following ways:</p> <ul style="list-style-type: none"> • Build the needed improvements and enter into a reimbursement agreement with El Dorado County; • If the needed improvement is already built, pay a fair-share fee to El Dorado County; or • If the needed improvement is not yet built, but the Project results in only marginal cause (as determined by the Director of El Dorado County Department of Transportation) and is included in the 10-year Capital Improvement Plan, pay fair-share fees to El Dorado County. <p>MM TRANS-1c: Prior to the issuance of building permits, the Project applicant shall be responsible for the addition of a traffic signal at the intersection of Pleasant Valley Road (SR-49) and SR-49 (South). Because of the close proximity, this intersection shall be coordinated with the proposed signalized Pleasant Valley Road (SR-49) and Forni Road. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation and Caltrans.</p> <p>MM TRANS-1d: Prior to the issuance of building permits, the Project applicant shall be responsible for</p>	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>upgrading Diamond Road (SR-49) between Diamond Springs Parkway and Lime Kiln Road to a four-lane multilane highway. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation and Caltrans.</p> <p>MM TRANS-1e: Prior to the issuance of building permits, the Project applicant shall be responsible for upgrading Diamond Springs Parkway between Missouri Flat Road and Throwita Way to a four-lane divided arterial and shall enter into a reimbursement agreement with El Dorado County for the improvements as applicable. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation.</p>	
Impact TRANS-2: The Proposed Project would not contribute a substantial number of trips to freeway ramp junctions under existing plus approved project conditions.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact TRANS-3: The Project would exceed, either individually or cumulatively, a level of service standard established by the El Dorado County General Plan or Caltrans for designated roads or highways.	Potentially significant impact.	MM TRANS-3a: Prior to the issuance of building permits, the Project applicant shall be responsible for upgrades to the Missouri Flat Road/Mother Lode Drive consisting of the conversion of the southbound right-turn lane to a through-right turn lane, and the addition of a southbound through lane south of Mother Lode Drive. In addition, the dual eastbound right-turn lanes from the eastbound US-50 ramps to Missouri Flat Road should be converted into a single free right-turn lane. The exclusive right-turn lane exiting eastbound US-50 shall channel vehicles destined for southbound Missouri Flat Road into the proposed southbound through-right lane at Mother Lode Drive.	Significant and unavoidable impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>MM TRANS-3b: Prior to the issuance of building permits, the Project applicant shall be responsible for the addition of a southbound through lane at the intersection Missouri Flat Road and Forni Road. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation.</p> <p>MM TRANS-3c: Prior to the issuance of building permits, the Project applicant shall be responsible for the addition of a northbound through lane and a southbound through lane at the intersection Diamond Road (SR-49) and Lime Kiln Road/Black Rice Road. In addition, the re-optimization of the signal timing along the signal corridor (including the following intersections: Diamond Springs Parkway and Throwita Way, Diamond Springs Parkway and Diamond Road (SR-29), and Diamond Road (SR-29) and Lime Kiln Road/Black Rice Road) shall be completed. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation and Caltrans.</p> <p>MM TRANS-3d: Prior to the issuance of building permits, and upon approval from Caltrans, the Project applicant shall be responsible for the addition of a southbound right-turn lane, an eastbound left-turn lane, and traffic signal control at the intersection of Pleasant Valley Road (SR-49) and Forni Road. Additionally, the intersection shall be coordinated with the signalized Pleasant Valley Road (SR-49) intersection with SR-49 (South).</p> <p>MM TRANS-3e: Prior to the issuance of building permits, and upon approval from Caltrans, the Project applicant shall be responsible for the</p>	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>addition of a northbound right-turn lane and traffic signal control at the intersection of Pleasant Valley Road (SR-49) and SR-49 (South). Additionally, the intersection shall be coordinated with the signalized Pleasant Valley Road (SR-49) intersection with Forni Road.</p> <p>MM TRANS-3f: Prior to the issuance of building permits, and in the event that the conversion of the westbound right-turn lane to a free-right turn lane at the intersection of Ponderosa Road and the US-50 Eastbound Ramps has not yet occurred, the Project applicant shall fund and implement said improvements and shall enter into a reimbursement agreement with El Dorado County for the improvements as applicable. If said improvements have been implemented prior to the issuance of building permits, the Project applicant shall pay fair-share fees for the intersection improvements. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation and Caltrans.</p> <p>MM TRANS-3g: Prior to the issuance of building permits, the Project applicant shall be responsible for the addition of a westbound right-turn lane at the intersection of Missouri Flat Road and China Garden Road. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation.</p> <p>MM TRANS-3h: Prior to the issuance of building permits, the Project applicant shall be responsible for upgrading Diamond Road (SR-49) between Lime Kiln Road and Pleasant Valley Road (SR-49) to a four-lane multilane highway. The improvements</p>	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>shall be completed to the satisfaction of the El Dorado County Department of Transportation and Caltrans.</p> <p>MM TRANS-3i: Prior to the issuance of building permits, the Project applicant shall be responsible for upgrading Diamond Springs Parkway between Throwita Way and Diamond Road (SR-29) to a four-lane divided arterial and shall enter into a reimbursement agreement with El Dorado County for the improvements as applicable. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation.</p>	
Impact TRANS-4: The Proposed Project would not contribute to a substantial number of trips to freeway ramp junctions directly causing unacceptable levels of service under cumulative (2025) conditions.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact TRANS-5: The Project would contribute to deficient queuing.	Potentially significant impact.	<p>MM TRANS-5a: Prior to the issuance of building permits, the Project applicant, at the discretion of El Dorado County, shall be responsible for the modification of lane assignments on the Missouri Flat Road/US-50 interchange bridge structure to provide for a continuous northbound left turn lane at Missouri Flat Road/Westbound US-50 Ramp intersection thereby removing one of the southbound left-turn lanes at the Missouri Flat Road/Eastbound US-50 Ramp intersection. The applicant, at the discretion of El Dorado County, shall be responsible for the improvements in one of the following ways:</p> <ul style="list-style-type: none"> • Build the needed improvements and enter into a reimbursement agreement with El Dorado County; 	Significant and unavoidable impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • If the needed improvement is already built, pay a fair-share fee to El Dorado County; or • If the needed improvement is not yet built, but the Project results in only marginal cause (as determined by the Director of El Dorado County Department of Transportation) and is included in the 10-year Capital Improvement Plan, pay fair-share fees to El Dorado County. <p>MM TRANS-5b: Prior to the issuance of building permits, the Project applicant, at the discretion of El Dorado County, shall be responsible for the extension of the westbound left-turn lane to a total length of 500 feet and for extension of the dual northbound left-turn lanes at the intersection of Diamond Springs Parkway and Missouri Flat Road to a total length of 440 feet. The applicant, at the discretion of El Dorado County, shall be responsible for the improvements in one of the following ways:</p> <ul style="list-style-type: none"> • Build the needed improvements and enter into a reimbursement agreement with El Dorado County; • If the needed improvement is already built, pay a fair-share fee to El Dorado County; or • If the needed improvement is not yet built, but the Project results in only marginal cause (as determined by the Director of El Dorado County Department of Transportation) and is included in the 10-year Capital Improvement Plan, pay fair-share fees to El Dorado County. <p>MM TRANS-5c: Prior to the issuance of building permits, the Project applicant, at the discretion of El Dorado County shall be responsible for the</p>	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>extension of the eastbound left-turn lane to a total length of 240 feet and for extension of the westbound left-turn lane at the intersection of Diamond Springs Parkway and Throwita Way to a total of 350 feet. The applicant, at the discretion of El Dorado County, shall be responsible for the improvements in one of the following ways:</p> <ul style="list-style-type: none"> • Build the needed improvements and enter into a reimbursement agreement with El Dorado County; • If the needed improvement is already built, pay a fair-share fee to El Dorado County; or • If the needed improvement is not yet built, but the Project results in only marginal cause (as determined by the Director of El Dorado County Department of Transportation) and is included in the 10-year Capital Improvement Plan, pay fair-share fees to El Dorado County. <p>MM TRANS-5d: Prior to the issuance of building permits, the Project applicant, at the discretion of El Dorado County, shall be responsible for the extension of the dual northbound left-turn lanes to a total length of 375 feet at the intersection of Diamond Springs Parkway and Diamond Road (SR-49). The Project applicant, at the discretion of El Dorado County, shall be responsible for the improvements in one of the following ways:</p> <ul style="list-style-type: none"> • Build the needed improvements and enter into a reimbursement agreement with El Dorado County; • If the needed improvement is already built, pay a fair-share fee to El Dorado County; or 	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> If the needed improvement is not yet built, but the Project results in only marginal cause (as determined by the Director of El Dorado County Department of Transportation) and is included in the 10-year Capital Improvement Plan, pay fair-share fees to El Dorado County. <p>MM TRANS-5e: Prior to the issuance of building permits, the Project applicant, at the discretion of El Dorado County, shall be responsible for the conversion of the northbound right-turn lane to a shared through-right lane, and the modification of signal phasing as appropriate at the intersection of Diamond Road (SR-49) and Pleasant Valley Road. The applicant, at the discretion of EL Dorado County, shall be responsible for the improvements in one of the following ways:</p> <ul style="list-style-type: none"> Build the needed improvements and enter into a reimbursement agreement with El Dorado County; If the needed improvement is already built, pay a fair-share fee to El Dorado County; or If the needed improvement is not yet built, but the Project results in only marginal cause (as determined by the Director of El Dorado County Department of Transportation) and is included in the 10-year Capital Improvement Plan, pay fair-share fees to El Dorado County. <p>MM TRANS-5f: Prior to the issuance of building permits, and upon receiving the approval of Caltrans, the Project applicant shall provide fair-share fees to El Dorado County for the eastern realignment of the Forni Road approach at the</p>	

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Pleasant Valley Road (SR-49)/Forni Road intersection. Fair-share fees shall be used by the County to realign the Forni Road approach to the east to improve the southbound intersection approach angle and maximize the spacing between the Pleasant Valley Road (SR-49) and Forni Road intersection and the Pleasant Valley Road (SR-49) and SR-49 (South) intersection. The ultimate intersection configuration shall be at the discretion of Caltrans and El Dorado County DOT.	
Impact TRANS-6: The Project has the potential to substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Potentially significant impact.	MM TRANS-6: Prior to approval of Improvement Plans and in conjunction with the Project's approved traffic study, the Project applicant shall consult with a qualified traffic engineer to identify and implement measures to reduce potential queuing and pedestrian conflicts at the project sites main access point and drive aisle. The potential measures may include but are not limited to maximizing the throat depth of the main drive aisle, provision of stop signs for internal drive aisles intersecting the main drive aisle, and proper identification of crosswalks. Any measures implemented as a result of this mitigation shall not cause traffic queuing at the site's main entrance to back up onto Diamond Springs Parkway. No stop sign shall be allowed on the southbound leg of the main entrance.	Less than significant impact.
Impact TRANS-7: The Proposed Project would not result in inadequate emergency access to the project site or its surroundings.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact TRANS-8: The Proposed Project would provide adequate off-street parking.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact TRANS-9: Construction activities associated with the Project would have the potential to adversely affect circulation and parking on nearby roadways.	Potentially significant impact.	MM TRANS-9: Prior to issuance of a grading permit, the Project applicant shall submit a Construction Traffic Control Plan to El Dorado County for review and approval. The plan shall identify the timing and routing of all major construction equipment and materials deliveries to avoid potential traffic congestion and delays on the local street network and MRF site access, and to encourage the use of US-50, Missouri Flat Road, and Diamond Springs Parkway. If necessary, construction equipment and materials deliveries shall be limited to off-peak hours (e.g., mornings or evenings) to avoid conflicts with local traffic circulation. The plan shall also identify suitable locations for construction worker parking and materials and equipment storage.	Less than significant impact.
Impact TRANS-10: The Proposed Project would not conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
<i>Offsite Improvements</i>			
Impact TRANS-1: The Project has the potential to result in an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).	Less than significant impact.	No mitigation is necessary.	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact TRANS-2: The Proposed Project would not contribute a substantial number of trips to freeway ramp junctions under existing plus approved project conditions.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact TRANS-3: The Project would exceed, either individually or cumulatively, a level of service standard established by the El Dorado County General Plan or Caltrans for designated roads or highways.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact TRANS-4: The Proposed Project would not contribute to a substantial number of trips to freeway ramp junctions directly causing unacceptable levels of service under cumulative (2025) conditions.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact TRANS-5: The Project would contribute to deficient queuing.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact TRANS-6: The Project has the potential to substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact TRANS-7: The Proposed Project would not result in inadequate emergency access to the project site or its surroundings.	Less than significant impact.	No mitigation is necessary.	Less than significant impact.
Impact TRANS-8: The Proposed Project would provide adequate off-street parking.	No impact.	No mitigation is necessary.	No impact.
Impact TRANS-9: Construction activities associated with the Project would have the potential to adversely affect circulation and parking on nearby roadways.	Less than significant impact.	Implement Mitigation Measure TRANS-9. MM TRANS-9: Prior to issuance of a grading permit, the Project applicant shall submit a Construction Traffic Control Plan to El Dorado County for review and approval. The plan shall	Less than significant impact.

Table 2-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		identify the timing and routing of all major construction equipment and materials deliveries to avoid potential traffic congestion and delays on the local street network and MRF site access, and to encourage the use of US-50, Missouri Flat Road, and Diamond Springs Parkway. If necessary, construction equipment and materials deliveries shall be limited to off-peak hours (e.g., mornings or evenings) to avoid conflicts with local traffic circulation. The plan shall also identify suitable locations for construction worker parking and materials and equipment storage.	
Impact TRANS-10: The Proposed Project would not conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).	Less than significant impact.	No mitigation is necessary.	Less than significant impact.

SECTION 3: PROJECT DESCRIPTION

3.1 - Introduction

GGV Missouri Flat LLC, herein referred to collectively as the Project applicant, proposes all actions required for development and construction associated with the Diamond Dorado Retail Center Project (DDRC Project, or Project), including Development Agreement (DA11-0003), a General Plan Amendment (GPA) (A 07-0018) from Industrial (I) to Commercial (C), Rezone (Z 07-0054) from Industrial (I) to General Commercial – Planned Development (CG-PD), a Tentative Parcel Map (TPM) (P 08-0017), and Planned Development (PD07-0034) on properties within unincorporated El Dorado County. The technical sections of this EIR analyze all project components as a single project, the Proposed Project. The GPA, Rezone, Development Plan, and TPM would facilitate the development of the proposed DDRC Project, which would include the construction of up to 280,515 square feet of retail space. This Draft Environmental Impact Report (Draft EIR) provides a project-level analysis for the proposed DDRC Project. El Dorado County (County) has commissioned the preparation of this EIR to disclose the potential environmental effects that may result from the construction and operation of the Project in accordance with the requirements of CEQA.

This section provides background and setting information for the Proposed Project, describes the Proposed Project and its related components, and lists the government actions required for completion and approval of the Project.

This section also describes offsite roadway improvements that are required by mitigation measures contained in Section 4.11, Transportation of this EIR.

3.2 - Project Location and Setting

3.2.1 - Location

The Proposed Project is located within unincorporated El Dorado County, California, south of the Missouri Flat Road/US-50 Interchange, west of the City of Placerville, and north of the town of Diamond Springs (Exhibit 3-1). As illustrated in Exhibit 3-2, the Project site abuts Diamond Road/ State Route 49 (SR-49) to the east, the separately proposed Diamond Springs Parkway (Parkway) and Bradley Drive to the north, and Lime Kiln Road to the south.

The project study area includes all or portions of Assessors Parcel Numbers (APNs) 051-250-12, 051-250-46, 051-250-47, 051-250-51, and 051-250-54, and totals approximately 30.63 acres. Of the total 30.63 acres, 27.61 acres would be developed as the proposed Diamond Dorado Retail Center. The remaining 3.02 acres (primarily located on Parcel 051-250-47, which contains the Material Recovery Facility[MRF]) would be disturbed to provide a new MRF access road. Exhibit 3-3 illustrates the subject parcels that comprise the Diamond Dorado Retail Center. (Note that the building shown directly east of the main access driveway and partially within the area marked as “Future

N.A.P.O.T.S.” [Not a part of this subdivision] is not a part of this Project and is shown only for illustrative purposes. No entitlements have been sought for the area marked as Future N.A.P.O.T.S.)

The project study area roughly corresponds with the southeast corner of Section 24 and the northeast corner of Section 25, Township 10 North, Range 10 East and the northwest corner of Section 30 Township 10 North, Range 11 East (Mount Diablo Baseline and Principal Meridian) on the U.S. Geological Survey (USGS) Placerville 7.5-minute quadrangle.

3.2.2 - Project Site Existing Conditions

The project site includes areas of highly disturbed land, weedy vegetation, and large shrubs and trees. Large portions of the project site are currently used or have been used in the past for storage and parking for the nearby industrial land uses. Much of the project site consists of disturbed soils, and large areas of grading are evident. Stockpiles of soil or gravel are present in several locations. The average elevation of the site is approximately 1,800 feet above mean sea level.

Throwita Way traverses the middle of the project site from north to south. Lime Plant Road enters the project site from the south from Lime Kiln Road and connects to Throwita Way.

3.2.3 - Surrounding Land Uses

North

Areas north of the project site include industrial land uses along Truck Street and Bradley Drive, including a mini storage facility, auto mechanic shop, and recycling center. Beyond the industrial land uses, undeveloped land, rural residences, and wooded areas are present.

This Draft EIR assumes that the separately proposed Diamond Springs Parkway (“Parkway”) Project would be constructed north of the proposed DDRC Project site as a two-lane roadway, prior to the start of construction. The Parkway, as currently proposed by El Dorado County DOT, would obtain right-of-way through APN 051-250-54. As such, APN 051-250-54 will be split into three parts, two of which will be located north of the Parkway. These parcel remnants and the future Diamond Springs Parkway alignments are identified on Exhibit 3-2. Similarly, the Parkway would obtain right-of-way through a portion of parcel 051-250-21, which is not a part of the Proposed Project. A remaining portion of APN 051-250-21 will be located south of the Parkway alignment, adjacent to a portion of the northern project site boundary, east of the proposed DDRC main access point. However, this parcel is not currently owned by the Project applicant, and no buildings or alterations are proposed on this parcel as a part of the DDRC Project.

East

Diamond Road/SR-49 borders the project site on the east. Beyond Diamond Road/SR-49 is an undeveloped area consisting of rural (weedy) vegetation and large trees. Further east are several scattered rural residences. A small residential subdivision is located southeast of the project site.



Source: Census 2000 Data, The CaSIL, MBA GIS 2009.



33370001 • 01/2010 | 3-1_regional.mxd

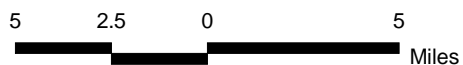
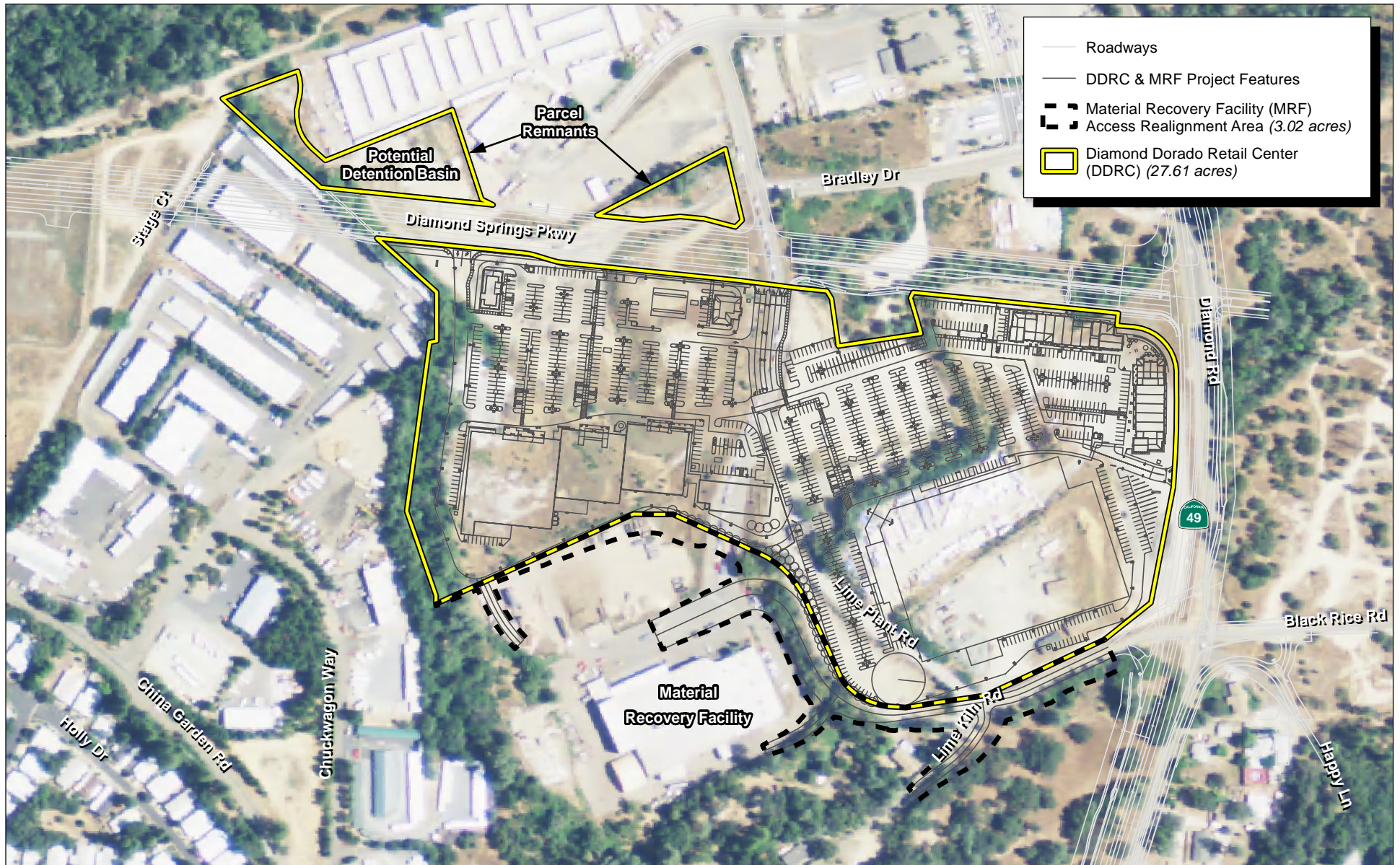


Exhibit 3-1 Regional Location Map



33370001 • 10/2010 | 3-2_Study_Area.mxd

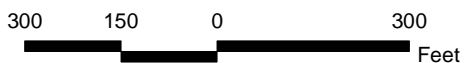


Exhibit 3-2 Project Study Area Aerial Base

OWNERS OF RECORD

LARSEN, J. & JACQUELINE ABEL
550 4TH, 1000
PLACERVILLE, CA 95667
50% MISSOURI 7 AT 11 C
3950 CA, 20000 DRIVE #201
SACRAMENTO, CA 95825
WHITE CONNECTIONS, INC.
35 IRON POINT CIRCLE #200
FO. 304, CA 95630
LINNMAN FAMILY TRUST
27107 F. I. MACEDO DRIVE
D. MACEDO, CA 95616

APPLICANT

DOY MISSOURI 7 AT 11, L.L.C.
4330 GOLDEN CENTER DRIVE
PLACERVILLE, CA 95667

ENGINEER

cta Engineering & Surveying
1000 Highway 99, Suite 100
Placerville, CA 95667

CONTOUR INTERVAL

CONTOUR INTERVAL = 5.0 FEET

SOURCE OF TOPOGRAPHY

AERIAL PHOTOGRAPHY

SECTION, TOWNSHIP and RANGE

PORTION OF SECTIONS 19, 24 & 30, T.10 N., R.10 E., S.10M.

ASSESSOR'S PARCEL NUMBERS

A.P.N.s: 051-250-12, 051-250-48, 051-250-47,
051-250-5 & 051-250-54

EXISTING ZONING

INDUSTRIAL

PROPOSED ZONING

GENERAL COMMERCIAL PD

0.25 ACRE

TOTAL AREA

21.50+ ACRES

TOTAL NUMBER OF PARCELS

12 COMMERCIAL PARCELS
1 REMAINDER PARCEL (PARCEL 13)

MINIMUM PARCEL AREA

0.205 ACRES

WATER/SEWER PROVIDER

EL DORADO IRRIGATION DISTRICT

FIRE PROTECTION DISTRICT

DIAMOND SPRINGS

DATE OF PREPARATION

JANUARY, 2010

COMMON AREA PARCELS

PARCEL 1

COMMERCIAL PARCELS

PARCELS 2-13

EASEMENTS TO BE ABANDONED OR RELOCATED

THE FOLLOWING EASEMENTS ARE TO BE ABANDONED OR RELOCATED UPON COMPLETION OF IMPROVEMENTS:

- 1/4" FOR POLYLINE TO WESTERN STATES GAS & FITC.
PER 108-08-21, NO WIDTH CHG
- ROAD & P.L.L. PLK DOC. NO. 95-00044/B
- 1/4" FOR POLYLINE TO WESTERN STATES GAS & FITC.
PER 108-08-21, NO WIDTH CHG
- 60' ROAD & P.L.L. EASEMENT FOR 108-08-21, 1/2
- 50' NON EXCLUSIVE ROADWAY AND
UTILITY EASEMENT PER 476' OR 186

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THE
LAND DEVELOPMENT KNOWN AS CAMPOBELLO HAS BEEN DESIGNED
IN ACCORDANCE WITH THE SPECIFICATIONS AND GUIDELINES
ESTABLISHED BY THE COUNTY OF EL DORADO.

Aaron Brusator
AARON BRUSATOR P.E. 64384
DATE 1.25.10

TENTATIVE COMMERCIAL PARCEL MAP

DIAMOND DORADO RETAIL CENTER

TRACT 2 & 3, R.S. 28-38, PARCEL A, P.M. 46-95, POR. LOT 1, P.M. 28-60

COUNTY OF EL DORADO

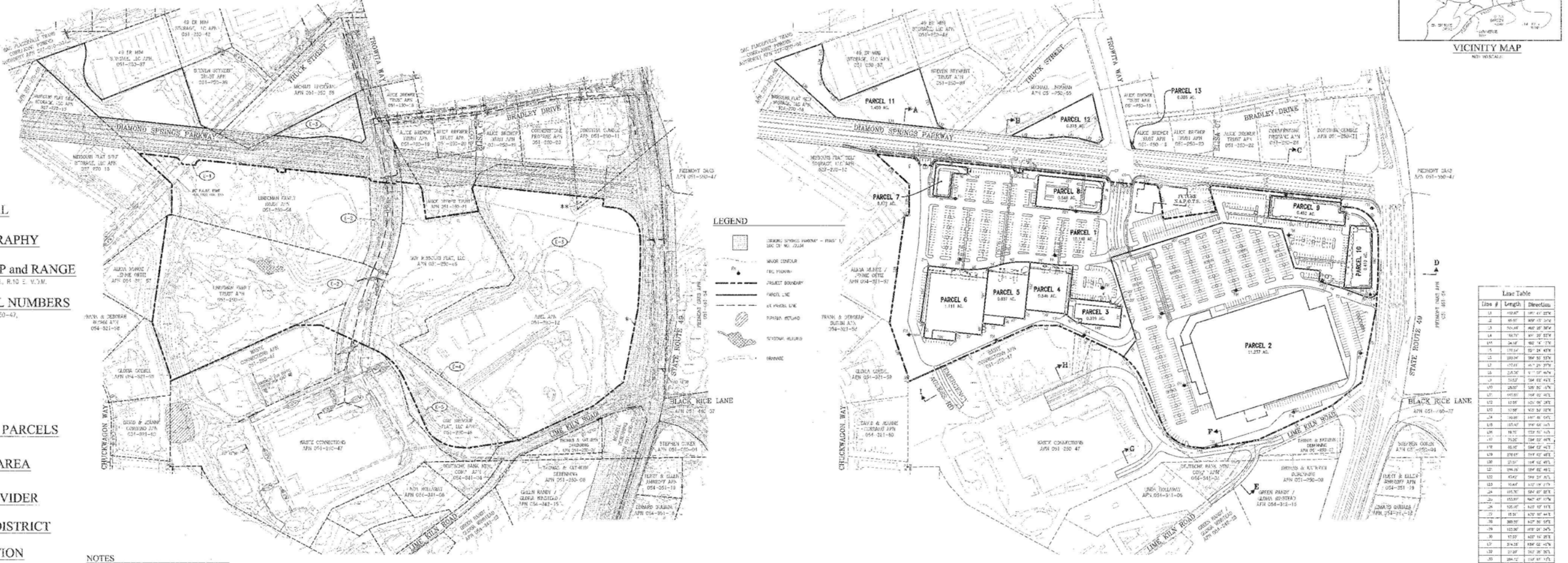
JANUARY, 2010

STATE OF CALIFORNIA

SHEET 1 OF 1



VICINITY MAP



LEGEND

- DIAMOND SPRINGS EASEMENT - 1/4"
- MAJOR CONTOUR
- FEET FROM
- PROJECT BOUNDARY
- PARCEL LINE
- EX PARCEL LINE
- PERMANENT WETLAND
- TEMPORARY WETLAND
- WETLAND

Line Table

Line #	Length	Direction
1	10.00	100° 00' 00"
2	10.00	090° 00' 00"
3	10.00	080° 00' 00"
4	10.00	070° 00' 00"
5	10.00	060° 00' 00"
6	10.00	050° 00' 00"
7	10.00	040° 00' 00"
8	10.00	030° 00' 00"
9	10.00	020° 00' 00"
10	10.00	010° 00' 00"
11	10.00	000° 00' 00"
12	10.00	350° 00' 00"
13	10.00	340° 00' 00"
14	10.00	330° 00' 00"
15	10.00	320° 00' 00"
16	10.00	310° 00' 00"
17	10.00	300° 00' 00"
18	10.00	290° 00' 00"
19	10.00	280° 00' 00"
20	10.00	270° 00' 00"
21	10.00	260° 00' 00"
22	10.00	250° 00' 00"
23	10.00	240° 00' 00"
24	10.00	230° 00' 00"
25	10.00	220° 00' 00"
26	10.00	210° 00' 00"
27	10.00	200° 00' 00"
28	10.00	190° 00' 00"
29	10.00	180° 00' 00"
30	10.00	170° 00' 00"
31	10.00	160° 00' 00"
32	10.00	150° 00' 00"
33	10.00	140° 00' 00"
34	10.00	130° 00' 00"
35	10.00	120° 00' 00"
36	10.00	110° 00' 00"
37	10.00	100° 00' 00"
38	10.00	090° 00' 00"
39	10.00	080° 00' 00"
40	10.00	070° 00' 00"
41	10.00	060° 00' 00"
42	10.00	050° 00' 00"
43	10.00	040° 00' 00"
44	10.00	030° 00' 00"
45	10.00	020° 00' 00"
46	10.00	010° 00' 00"
47	10.00	000° 00' 00"
48	10.00	350° 00' 00"
49	10.00	340° 00' 00"
50	10.00	330° 00' 00"
51	10.00	320° 00' 00"
52	10.00	310° 00' 00"
53	10.00	300° 00' 00"
54	10.00	290° 00' 00"
55	10.00	280° 00' 00"
56	10.00	270° 00' 00"
57	10.00	260° 00' 00"
58	10.00	250° 00' 00"
59	10.00	240° 00' 00"
60	10.00	230° 00' 00"
61	10.00	220° 00' 00"
62	10.00	210° 00' 00"
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64	10.00	190° 00' 00"
65	10.00	180° 00' 00"
66	10.00	170° 00' 00"
67	10.00	160° 00' 00"
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69	10.00	140° 00' 00"
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90	10.00	290° 00' 00"
91	10.00	280° 00' 00"
92	10.00	270° 00' 00"
93	10.00	260° 00' 00"
94	10.00	250° 00' 00"
95	10.00	240° 00' 00"
96	10.00	230° 00' 00"
97	10.00	220° 00' 00"
98	10.00	210° 00' 00"
99	10.00	200° 00' 00"
100	10.00	190° 00' 00"

SITE PLAN

SCALE: 1" = 100'

Curve Table

Curve #	Length	Radius	Delta
01	10.00	100.00	90.00
02	10.00	100.00	90.00
03	10.00	100.00	90.00
04	10.00	100.00	90.00
05	10.00	100.00	90.00
06	10.00	100.00	90.00
07	10.00	100.00	90.00
08	10.00	100.00	90.00
09	10.00	100.00	90.00
10	10.00	100.00	90.00
11	10.00	100.00	90.00
12	10.00	100.00	90.00
13	10.00	100.00	90.00
14	10.00	100.00	90.00
15	10.00	100.00	90.00
16	10.00	100.00	90.00
17	10.00	100.00	90.00
18	10.00	100.00	90.00
19	10.00	100.00	90.00
20	10.00	100.00	90.00
21	10.00	100.00	90.00
22	10.00	100.00	90.00
23	10.00	100.00	90.00
24	10.00	100.00	90.00
25	10.00	100.00	90.00
26	10.00	100.00	90.00
27	10.00	100.00	90.00
28	10.00	100.00	90.00
29	10.00	100.00	90.00
30	10.00	100.00	90.00

Note: The building shown directly east of the main access
driveway and partially within the area marked as "Future
N.A.P.O.T.S." (not a part of this subdivision), is not a part of
this project and is shown for illustrative purposes only. No
entitlements have been sought for the area marked as
Future N.A.P.O.T.S.

PLANNING COMMISSION
APPROVAL/DATE: _____
BOARD OF SUPERVISORS
APPROVAL/DATE: _____

Source: cta Engineering and Surveying (January 25, 2010).



Michael Brandman Associates

33370001 • 11/2011 | 3-3_TPM.ai

Exhibit 3-3
Tentative Parcel Map

South

The El Dorado Material Recovery Facility (MRF) and Lime Kiln Road are located adjacent to the southern boundary of the project site. Beyond the MRF and Lime Kiln Road are rural residences and undeveloped woodlands. The Community of Diamond Springs is located approximately 0.30 mile south of the project site on Pleasant Valley Road/SR-49.

West

West of the project site are commercial and industrial land uses along Chuckwagon Way and Stage Court. Uses include a mini storage facility, auto mechanic shops, small manufacturing operations, and small storage warehouses. A mobile home park is located between these uses and the commercial uses on Missouri Flat Road.

3.3 - Background and Intent of the Proposed Project

The Project proposes a General Plan Amendment (GPA) of underlying land use to Commercial and Rezone to General Commercial - Planned Development (CG-PD) with the intent to establish a Development Plan for the proposed construction of a 280,515-square-foot commercial shopping center within unincorporated El Dorado County.

The Proposed Project originally assumed that the County's Materials Recovery Facility (MRF), would be relocated under a separate project and EIR. Relocation of the MRF would have allowed the DDRC to be developed on a contiguous 44.76 acres. Note that relocation of the MRF was never a part of the DDRC Project and would have occurred under a separate action by the County. However, strong public opposition to the MRF relocation halted any further consideration of this component of the Project, due to a number of factors but specifically the MRF's proximity to residences and the potential resulting environmental impacts. Accordingly, the Project was adjusted to allow the MRF to remain at its current location and to construct a new access point from Lime Kiln Road.

The Economic Development Element of the County's 2004 General Plan places major emphasis on the County's need to address the current leakage of sales tax dollars into adjacent jurisdictions. The 2007 El Dorado County Economic Development Strategy and third quarter 2009 Economic Development Quarterly Report list directives to support the expansion of economic development (e.g., retail services) in El Dorado County.

In 1998, the County prepared the Missouri Flat Area Master Circulation and Funding Plan (MC&FP) to provide a comprehensive and coordinated approach to address the capacity for future commercial development within the Missouri Flat area, which includes the proposed project site. The MC&FP also addressed traffic congestion in the Missouri Flat Area. The EIR prepared for the MC&FP included a programmatic-level analysis of the Diamond Springs Parkway. To ensure that future development contemplated in the MC&FP would be constructed in a cohesive, aesthetically pleasing manner, El Dorado County also prepared the Missouri Flat Design Guidelines. The MC&FP,

Diamond Springs Parkway, and Missouri Flat Design Guidelines are further described in the following sections.

3.3.1 - Missouri Flat Area Master Circulation and Funding Plan

The Proposed Project is located in the Missouri Flat Area Master Circulation and Funding Plan (MC&FP) area. The MC&FP was prepared and adopted by the County in order to provide a comprehensive and coordinated approach to address both existing traffic congestion and the issue of providing capacity for future development in the Missouri Flat Area (Economic & Planning Systems 1998). The MC&FP established a “master circulation and funding plan” for roadway improvements within the Missouri Flat Area that would be funded through a variety of sources, including fees and taxes generated by retail development in the Missouri Flat Area. In 1998, EDAW, under contract to DOT, prepared the Missouri Flat Area Master Circulation and Funding Plan (MC&FP) Program EIR (EDAW 1998).

The MC&FP EIR contemplated a total of 1,700,000 square feet of retail development to be constructed between 1998 and 2015 in two separate phases on lands designated as commercial. The Proposed Project would be considered part of the second phase, “Future MC&FP Retail.” Under the MC&FP, all new developments in the Missouri Flat Area are obligated to pay a proportional share of improvement costs in adherence with DOT’s current Capital Improvement Plan (CIP), and the County’s Traffic Impact Mitigation (TIM) Fee Program.

3.3.2 - Diamond Springs Parkway

Also included in the MC&FP and evaluated in the MC&FP EIR was a conceptual review of the “Missouri Flat Road/Pleasant Valley Connector (Interconnector),” which has been renamed the Diamond Springs Parkway Project (Parkway). The County General Plan Circulation Map (El Dorado County 2004) identifies the Parkway as a planned roadway. The Parkway is part of DOT’s 2010 Capital Improvement Plan (CIP) and is included in the County’s Traffic Impact Mitigation (TIM) Fee Program. The separately proposed Parkway would be constructed adjacent to the proposed DDRC Project and would serve as a connection between Missouri Flat Road and Diamond Road (SR-49) (see Exhibit 3-10). The 2010 CIP shows completion of Phase 1 of the Parkway in 2013. The El Dorado County Department of Transportation (DOT) has prepared a separate EIR for the Parkway Project (State Clearinghouse No. 2007122033), which was certified by the El Dorado County Board of Supervisors on May 24, 2011. This Diamond Dorado Retail Center Draft EIR assumes that a two-lane Parkway would be completed prior to the construction of the DDRC Project.

Construction of the Diamond Springs Parkway

Primary access to the Project would be via the Diamond Springs Parkway. The Parkway is designed to improve traffic circulation along the Pleasant Valley Road and Missouri Flat Road corridors. When constructed, the Parkway will connect Missouri Flat Road with Diamond Road/SR-49, north of the proposed DDRC. Diamond Road/SR-49 would be improved to a four-lane major highway from

just north of the Parkway south to Pleasant Valley Road. In addition, minor improvements and/or realignment of China Garden Road, Throwita Way, Truck Street, Bradley Drive, and Old Depot Road would be constructed and a new Truck Street/Bradley Drive Connector would be constructed west of Diamond Road/SR-49 to enhance circulation within the project area. The Parkway and associated improvements are shown in Exhibit 3-10.

As noted in the EIR for the Diamond Springs Parkway Project, the Parkway and related improvements will be constructed in phases. Phase 1 would construct the Parkway as a two-lane arterial roadway and may include right-of-way acquisitions and grading for only the two lanes or the final, four-lane roadway prism. Phase 2 would widen the Parkway to four lanes and is included in El Dorado County's Capital Improvement Plan (CIP) for implementation in 2018-2019. Right-of-way for the ultimate four-lane Parkway configuration would be maintained during the construction and operation of the Retail Center. Accordingly, as previously mentioned, this Diamond Dorado Retail Center Draft EIR assumes that a two-lane Parkway would be completed prior to the construction of the DDRC Project.

3.3.3 - Missouri Flat Design Guidelines

The Proposed Project is located within the boundary of the Missouri Flat Design Guidelines, which provide design recommendations for new development. The design guidelines and streetscape improvement standards included in the guidelines are intended to improve the quality and character of the built environment and create a pedestrian-friendly atmosphere with enhanced public spaces along the corridor. The DDRC Project has been designed with these guidelines in mind.

3.4 - Project Objectives

The primary objectives of the DDRC Project are as follows:

- Develop a new retail center that serves local residents and visitors with essential goods and services.
- Create new job opportunities for local residents.
- Promote increased economic growth and development that is consistent with the policies of the El Dorado County General Plan.
- Generate additional sales tax and property tax revenues for El Dorado County.
- Utilize existing infrastructure by developing a retail center on an infill site in the vicinity of existing commercial uses.

3.5 - Project Description

The Proposed Project consists of the construction of the 280,515-square-foot Diamond Dorado Retail Center and a new access route for the adjacent Material Recovery Facility. The Project applicant has submitted applications for a General Plan Amendment (A 07-0018), Rezone (Z 07-0054), Planned Development (PD) (PD 07-0034), Development Agreement (DA11-003), and a Commercial Tentative Parcel Map (TPM) (P 08-0017). The Diamond Dorado Retail Center, Material Recovery Facility access realignment, and the related previously mentioned applications are discussed below.

3.5.1 - Project Applications

The development of the proposed DDRC requires the following discretionary approvals from the County: a General Plan Amendment (GPA) to allow commercial use, an associated rezoning to General Commercial (CG), with a Planned Development (PD) Overlay, a Development Plan for the proposed retail shopping center, and approval of the Commercial Tentative Parcel Map (TPM).

The GPA would change the existing General Plan land use designation from Industrial (I) to Commercial (C). The purpose of the Commercial (C) land use designation, as stated in the General Plan, is to “provide a full range of commercial retail, office, and service uses to serve the residents, businesses, and visitors of El Dorado County.”

The Proposed Project would also require rezoning from Industrial (I) to General Commercial – Planned Development (CG-PD). As discussed in the 2005 El Dorado County Zoning Ordinance, the intent of the General Commercial (CG) district is to “create a land use zone to provide for the conduct of sales, storage, distribution, and light manufacturing businesses of the type which do not ordinary cause more than a minimal amount of noise, odor, smoke or dust.”

The purpose of applying a PD overlay zone, which is described in Chapters 17.02 and 17.04 of the County’s Zoning Ordinance, is to establish the official Development Plan for DDRC and allow for an efficient utilization of the property, to allow flexibility in developing the site, and to encourage a more efficient use of public and/or private services and utilities. The lands subject to the proposed GPA and rezone are illustrated in Exhibit 3-4.

Approval of the TPM would subdivide the existing project site parcels creating 13 commercial parcels to accommodate the Proposed Project and allow the implementation of the Planned Development for Diamond Dorado Retail Center.

The Development Agreement (DA) is a contract that would be negotiated between the County and Project applicant, pursuant to Government Code Section 65864, et seq. The DA would set forth the rule and regulations that would govern the development of the Project during the term of the DA.



Source: El Dorado County Parcels & NAIP for El Dorado County (2009).



33370001 • 11/2011 | 3-4_affected_parcel.mxd

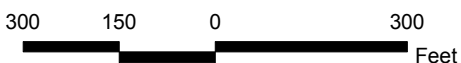


Exhibit 3-4 Project Affected Parcels

3.5.2 - Diamond Dorado Retail Center Project

The Proposed Project has been designed to conform to El Dorado County's development standards for the General Commercial (CG) zone and Planned Development (PD) overlay. The proposed Site Plan is illustrated in Exhibit 3-5, and Exhibit 3-6a and 3-6b provide examples of architectural vertical cross-sections of the Proposed Project. Please note that the architectural vertical cross-sections are preliminary and subject to change.

The proposed DDRC Project would construct up to nine commercial/retail buildings and 1,279 grade-level vehicular parking spaces on approximately 27.61 acres of the 30.63-acre project site (Exhibit 3-5). The Project would include one, large, one-story retail store; one, medium-sized, one-story retail store; up to seven, smaller, one-story retail/office buildings and a fuel station; and—possibly—one restaurant. The buildings would be connected by pedestrian walkways accessible from Diamond Road/SR-49 and the Parkway.

Design Features

As shown in Exhibit 3-6a and 3-6b, the proposed retail buildings would consist of single-story structures of varying heights not to exceed 50 feet. The architectural theme would be consistent with rural structures commonly found in this area, mixing modern uses and configurations while borrowing stylistic characteristics from El Dorado County's history. The buildings would have a combination of gable or shed roofs with cornice-topped walls and utilize rust accented metal roofing, stucco, vertical siding, and board and batten siding. Pedestrian plazas with trellises, accent planting, and seating, would provide meeting or resting places and opportunities for outdoor dining. The proposed pedestrian plazas would be connected to the buildings via well-defined pedestrian routes. Low walls would visually screen cart storage areas. Rooftop equipment would be screened from offsite view by the building's parapet walls. Layers of trees, accent vegetation, and fencing would screen the view into the adjacent MRF site.

Hours of Operation

The Proposed Project has the potential to operate 24 hours a day, 7 days a week, depending upon the tenant types. However, 24-hour operation would likely be limited to the proposed gas station and possibly a restaurant.

Site Coverage

Table 3-1 summarizes the DDRC project square footage. Current estimates indicate that the structural components and other non-permeable surfaces such as parking, internal roadways, and sidewalks would cover 21.11 acres of the 27.61-acre retail/commercial development, which results in approximately 76.5 percent of impervious cover on the project site. Similarly, the proposed commercial retail center would have a Floor Area Ratio (FAR) of 0.23 (280,515 square feet ÷ 27.61 acres [1,202,691.6 square feet]). No structural components associated with the Project would exceed a maximum height of 50 feet above the onsite grade.

Table 3-1: Diamond Dorado Retail Center Square Footage Summary

Building	Overall Retail Area (square feet)
Major 1	160,572
Major 2	38,843
Building P1	21,000
Building P2	19,300
Building P3	10,000
Building P4	3,300
Building P5	2,500
Building P6 (multi-tenant)	13,500
Building P7 (multi-tenant)	11,500
Total	280,515
Source: Brian Wickert, Architect, 2010.	

Site Perimeter

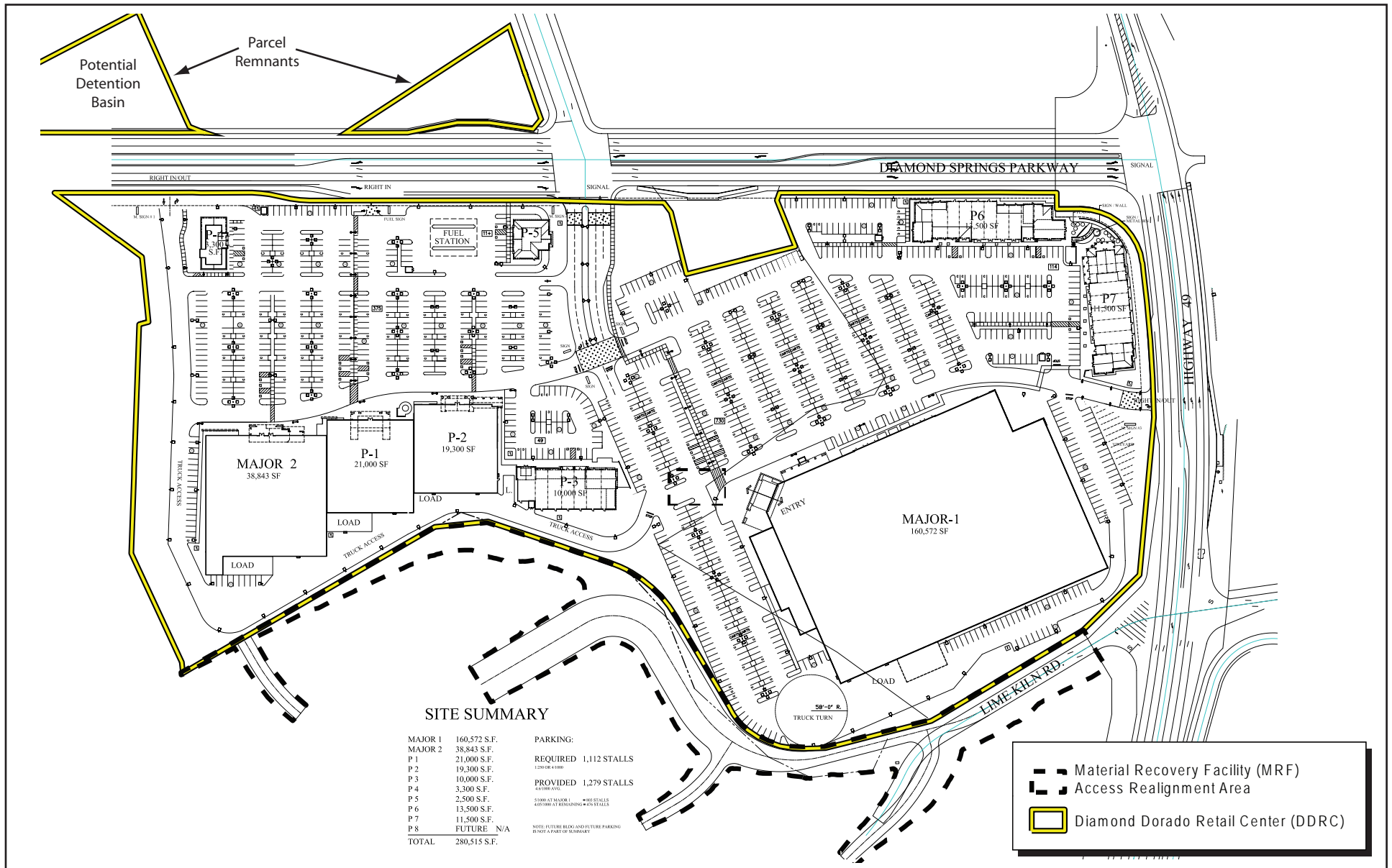
The Project would include grading adjacent to the unnamed drainage on the west. The construction of a 6-foot fence and landscaping in front of the fence (large, fast-growing trees) is proposed along the western and southern perimeters of the project site for safety and security purposes. In addition, the building pad elevation for P3 would be 10 feet above the pad elevation of the existing MRF, and Major 1 would be 23 feet above the MRF. The elevation difference, fencing, and landscaping would create a de facto barrier between the DDRC and MRF sites in an aesthetically pleasing manner as possible.

Infrastructure

The proposed project infrastructure, including site access, internal circulation, parking, pedestrian and bicycle amenities, utilities, drainage, landscaping, external lighting, and signage, is described in more detail in the following subsections. The infrastructure improvements are expected to be built using private financing. These improvements would be constructed in a single phase.

Site Access

Site access would be provided from one signalized intersection situated along the separately proposed Parkway near the existing Throwita Way. Three other right-turn-in and right-turn-out access points would be provided as part of the project site access: one at Diamond Road/SR-49 and two located west of the main Parkway signalized entrance. Truck access to the project site would be provided from the separately proposed Parkway. Truck loading and circulation is described in more detail below. It is anticipated that portions of the public easement for Throwita Way located within the project site will be vacated through the normal county process.



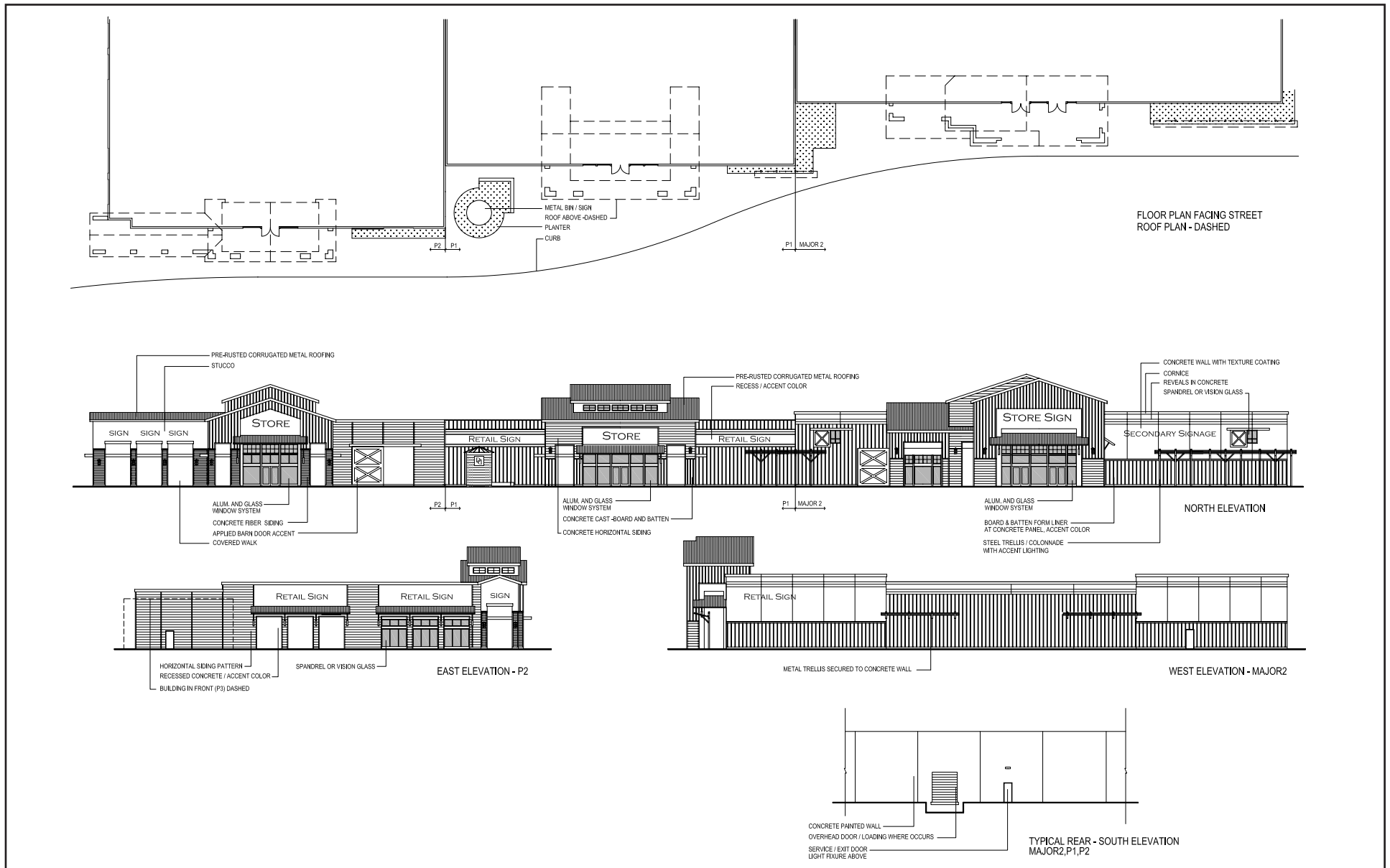
Source: Brian Wicker-Architect (January 22, 2010).



Michael Brandman Associates

33370002 • 07/2010 | 3-5_Project_Site_Plan.ai

Exhibit 3-5 Project Site Plan



Source: Brian Wicker-Architect (January 22, 2010).



Michael Brandman Associates

33370002 • 02/2010 | 3-6a_Building_Elevations.ai

Exhibit 3-6a Building Elevations for Major 2, P1 & P2

EL DORADO COUNTY • DIAMOND DORADO RETAIL CENTER
STAFF REPORT-EXHIBIT 0-2 (DRAFT EIR)
12-1084 F(2) 113 of 572



Source: Brian Wicker-Architect (January 22, 2010).



Michael Brandman Associates

33370002 • 02/2010 | 3-6b_Building_Elevations.ai

Exhibit 3-6b Building Elevations for Major 1

EL DORADO COUNTY • DIAMOND DORADO RETAIL CENTER
STAFF REPORT-EXHIBIT 0-2 (DRAFT EIR)
12-1084 F(2) 115 of 572

Truck Loading and Circulation

Trucks would typically deliver merchandise to the DDRC project site between the hours of 7 a.m. and 10 p.m. Smaller vendor trucks would make deliveries 5 days a week between the hours of 5 a.m. and 10 p.m.

Trucks delivering to Major 2, Building P1, P2, P3, and P4 would enter the site at the westernmost access point from the separately proposed Parkway and continue south along the site's western boundary to access the loading areas. Trucks would then exit the DDRC site via the main entrance from the Parkway (Exhibit 3-5). Trucks delivering to Major 1 would enter the site from the separately proposed Parkway via the main entrance, utilize the truck turn area to access the loading docks, and then return to the Parkway via the same route.

Construction activities will need to be coordinated with the MRF. Under the Proposed Project, a new access route would be created for the MRF from Lime Kiln Road prior to demolishing the Throwita Way access. This will require site planning and coordination to be conducted with the MRF operators to implement the proposed DDRC improvements and new MRF access road.

Parking

The Project would include 1,279 total parking spaces thereby complying with the El Dorado County Zoning Ordinance's parking standards of one parking space for every 300 square feet of gross floor area (in this case, a minimum of 934 spaces). Of the 1,279 parking spaces, 1162 would be standard stalls, 90 would be compact stalls, and 27 would be compliant with the American with Disabilities Act.

Pedestrian and Bicycle Amenities

As shown in Exhibit 3-5, well-defined pedestrian routes would be located throughout the project site. Patterned paving would be used to demarcate pedestrian crossing areas in front of the retail buildings. Pedestrian movement in front of the retail stores would also be protected with decorative bollards. Sidewalks would be constructed along the Project's frontages with Diamond Springs Parkway and Diamond Road (SR-49) and be designed to County standards.

Parking for bicycles would be included as part of the Project.

The El Dorado Multi-Use Trail (EDMUT) is a Class I bicycle/pedestrian trail located north of the proposed project site. As a part of the Proposed Project, a path would be constructed between the EDMUT and the Diamond Springs Parkway along the western side of Parcel 11. Pedestrians and bicyclists would be able to exit the EDMUT via the proposed path on Parcel 11, connect to the sidewalk on the northern side of the Diamond Springs Parkway, and then use the crosswalk at the intersection of Diamond Springs Parkway and Throwita Way to access the DDRC. Provision of this connection to the EDMUT would be consistent with several El Dorado County General Plan policies, including 2.5.2.1, 2.5.2.2, TC-3c, TC-4i, and 9.1.2.5.

As a condition of approval for the Proposed Project, a bus turnout would be provided at the northwest corner of the Diamond Road (SR-49) and Lime Kiln Road intersection.

Water Supply

Water service for the Project would be provided by the El Dorado Irrigation District (EID) via the construction of water line extensions connecting to existing water lines located in Truck Street, Throwita Way, Diamond Road (SR-49), and the MRF property. The Project would comply with EID's regulations regarding water service extensions and water system improvements, engineering and construction standards, and approved materials. A minimum of nine fire hydrants would be located throughout the project site in order to provide sufficient fire water flow.

Wastewater Collection, Conveyance, and Disposal

All wastewater generated from the Project would be conveyed to, and processed at, EID's Deer Creek Wastewater Treatment Plant. The Project would require the extension of a sanitary sewer collection line from an existing trunk line located within the Diamond Road (SR-49) right-of-way south of the Lime Kiln Road intersection. The Project applicant would coordinate the pipeline extension with EID.

Other Utilities

Local providers offer utilities including power, telephone, cable TV, and internet. Infrastructure for these utilities is already present in the project area, and several power poles are currently located within the project site. Accordingly, the Proposed Project would coordinate with PG&E and other local utility providers to accommodate relocation of the existing power poles. In accordance with General Plan Policy 5.6.1.1, the Proposed Project would coordinate efforts with utilities for the undergrounding of existing and new utility distribution lines in accordance with current rules and regulations of the California Public Utility Commission. Relocation of power lines would be coordinated with the relocation of pipelines occurring as a part of the Diamond Springs Parkway Project.

Propane may be used onsite and propane tanks may be located above or below ground in locations throughout the project site as needed. All utilities, including propane equipment, would be constructed in accordance with applicable regulations.

Drainage

The Project would include the creation of new drainage infrastructure facilities to attenuate post-development runoff volumes to pre-development levels. Exhibit 3-7 illustrates the drainage facilities that would be constructed in conjunction with the Project. The site drainage consists of an underground conduit system with water quality manholes (the quantity of which to be determined upon completion of the final drainage study). A detention basin would be constructed on the north side of the separately proposed Parkway in a remnant of APN 051-250-54.



Source: CTA Engineering and Surveying (January 25, 2010).



Michael Brandman Associates

33370001 • 02/2010 | 3-7_Grading_&_Drainage.ai

Exhibit 3-7
Grading and Drainage Plan

The detention basin would be designed to ensure that post-development flows do not exceed the pre-development flows at the point of discharge. This detention basin would discharge to the ephemeral drainage that borders the western boundary (Exhibit 3-7). A portion of the ephemeral drainage located along the western boundary of the project site would be channelized and connected to the culvert crossing Diamond Springs Parkway regardless of detention basin implementation.

Landscaping Features

As shown in Exhibit 3-8a and Exhibit 3-8b, the Project would include the establishment of landscaping around most of the project perimeter, throughout the parking areas, and in front of the retail buildings. In addition, landscape planters would be located near the primary entries of the stores and integrated into the cart storage screening walls. Tree species would include those currently approved by El Dorado County. A variety of shrubs, groundcovers, grasses, and perennials would be planted at the tree bases. Vegetative species included in the project landscaping are generally native to the region or are drought-tolerant, and they include a number of flowering varieties. All landscaping would conform to the Missouri Flat Design Guidelines.

The onsite and offsite irrigation system will use recycled irrigation water as soon as recycled water becomes available to the project site.

External Lighting

Lighting in the Project's parking areas would include 25-foot-high, 400-watt, single- and dual-headed fixtures. In addition, lighting consisting of 12-foot-high, 175-watt, accent-style luminaires would be located along the Project's frontage to the Parkway. Wall sconces would be mounted at intervals around each of the retail buildings. Both the parking lot and building lighting fixtures would be designed to cast light downward, thereby providing lighting at the ground level for pedestrian safety while reducing glare to adjacent properties. All lighting would be compatible with Missouri Flat Design Guidelines. Exhibit 3-9 includes the Proposed Project's photometric plan.

Signage

Project signage would be developed consistent with the Missouri Flat Design Guidelines. The Project would include up to 11 freestanding signs located throughout the project site and along the Project's road frontages. The largest freestanding sign would be approximately 30 feet tall and would be located at the main entrance to the Center on Diamond Springs Parkway. Other freestanding signs would be located at the corner of the Parkway and Diamond Road/SR-49 at Lime Kiln Road and Diamond Road/SR-49 and at the westernmost access point on the separately proposed Parkway. Approximately 78 wall-mounted signs would be located on the front, side, and rear elevations of the proposed buildings. Wall-mounted signs would consist of light emitting diode (LED)-illuminated channel letters. The exact number and size of wall-mounted signage would depend on the types of businesses leasing retail space at the DDRC. The wall sign criteria will meet all current County sign ordinances and requirements. Appendix B includes the proposed signage plans.

3.5.3 - Material Recovery Facility

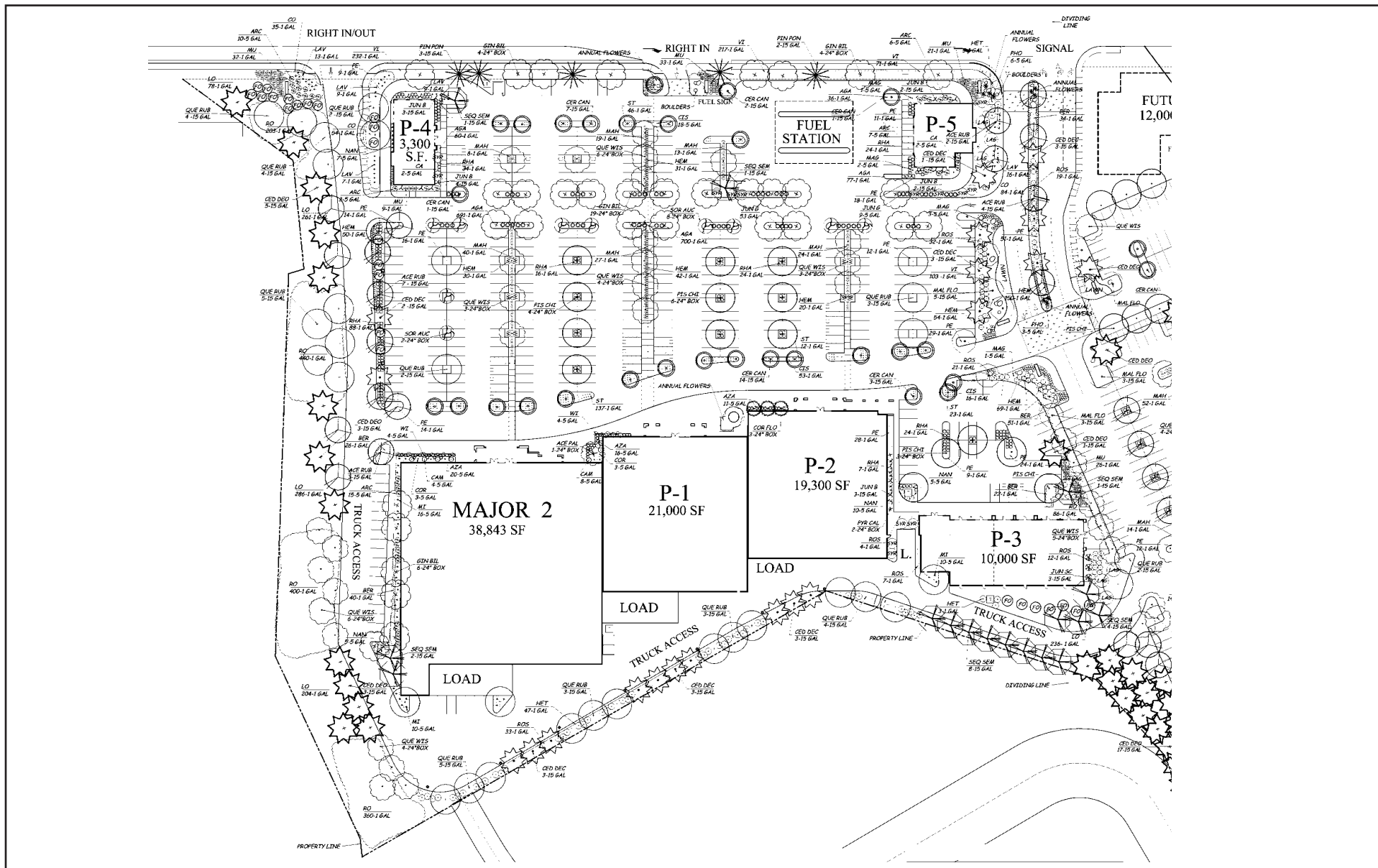
The Proposed Project assumes that the adjacent Material Recovery Facility (MRF) would remain in its current location on APN 051-250-47 (Exhibit 3-4). Currently, the MRF access is via Throwita Way, located at the center of the DDRC project site. Implementation of the DDRC would remove access to the MRF via Throwita Way; therefore, the MRF's access would be relocated to Lime Kiln Road prior to demolishing the Throwita Way access (Exhibit 3-2 and Exhibit 3-5). An emergency-only access route would also be constructed on the northwestern corner of the MRF property, allowing emergency-only access to the Parkway through the DDRC property. The new MRF access and emergency-only access would require disturbance to 3.02 acres as shown on Exhibit 3-2. Alterations to the MRF facility's existing onsite infrastructure (parking, landscaping, relocation of the gate house) would occur as a result of the access realignment. These alterations would occur within the project site as identified on Exhibit 3-5, on already developed areas and subject to future review under the existing Use Permit.

The access realignment will require site planning and coordination to be conducted with the MRF operators to implement the proposed DDRC improvements and new MRF access points. As such, MRF traffic and access needs have been taken into consideration during the planning and design of the DDRC Project, and the Proposed Project would accommodate MRF-related traffic throughout construction and staging. DDRC construction activities would be coordinated with the MRF, as necessary.

3.5.4 - Offsite Roadway Improvements

In addition to the onsite improvements associated with the Diamond Dorado Retail Center Project, this document discusses offsite roadway improvements, which are required by mitigation measures contained in Section 4.11, Transportation, of this EIR. Impact discussions of offsite roadway improvements are limited to the short-term physical impacts of constructing the improvements. Operational impacts are not discussed because the proposed offsite improvements are designed to alleviate congestion and improve safety and access for drivers in the project area. As such, impacts resulting from offsite improvements would only occur during construction.

Table 3-2 provides the location and a brief description of the proposed offsite roadway improvements. The locations of proposed offsite roadway improvements are illustrated in Exhibit 3-11a and 3-11b.

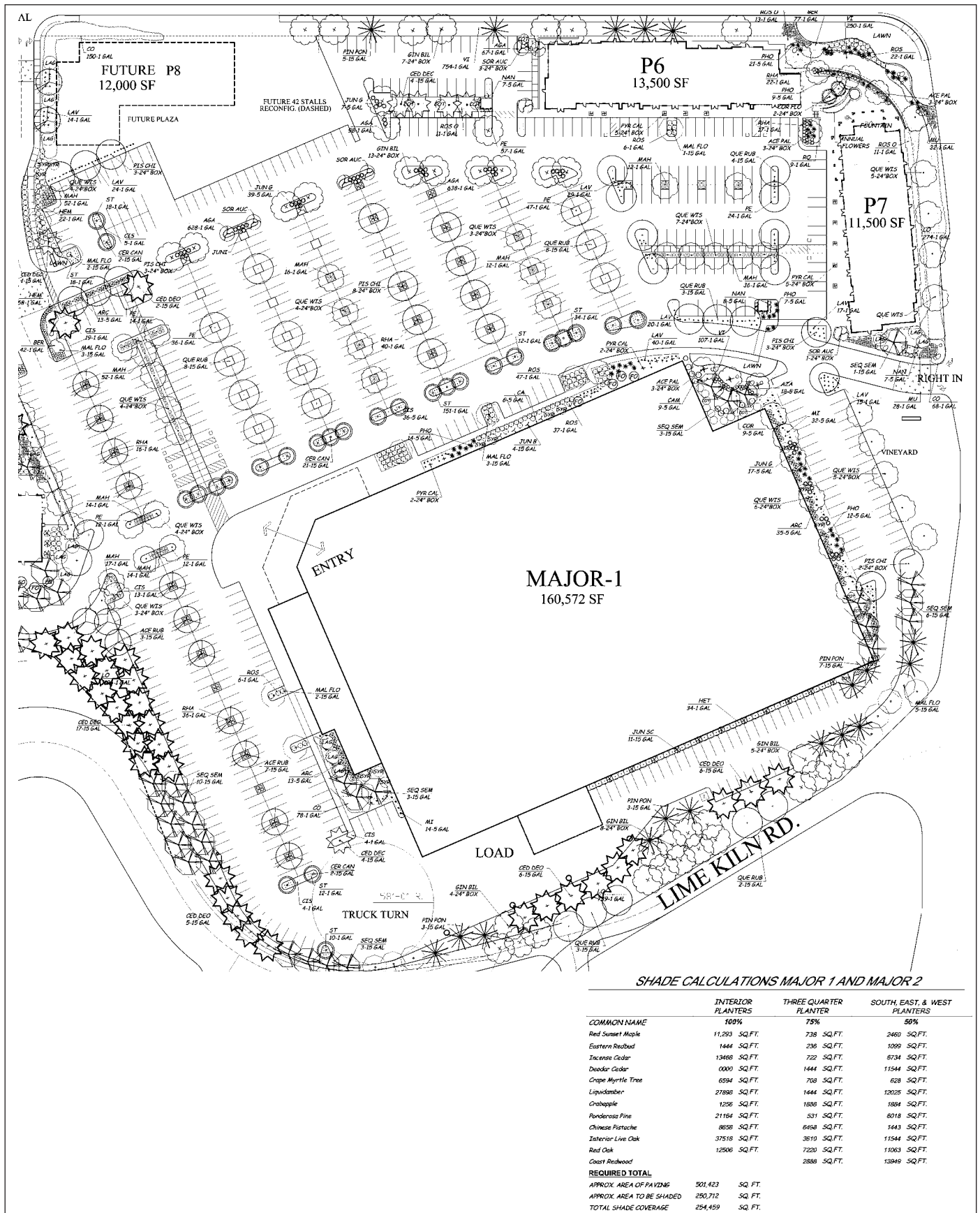


Source: Adams Landscape Design (January 15, 2010).



Michael Brandman Associates
33370002 • 02/2010 | 3-8a_LP.ai

Exhibit 3-8a Landscaping Plan



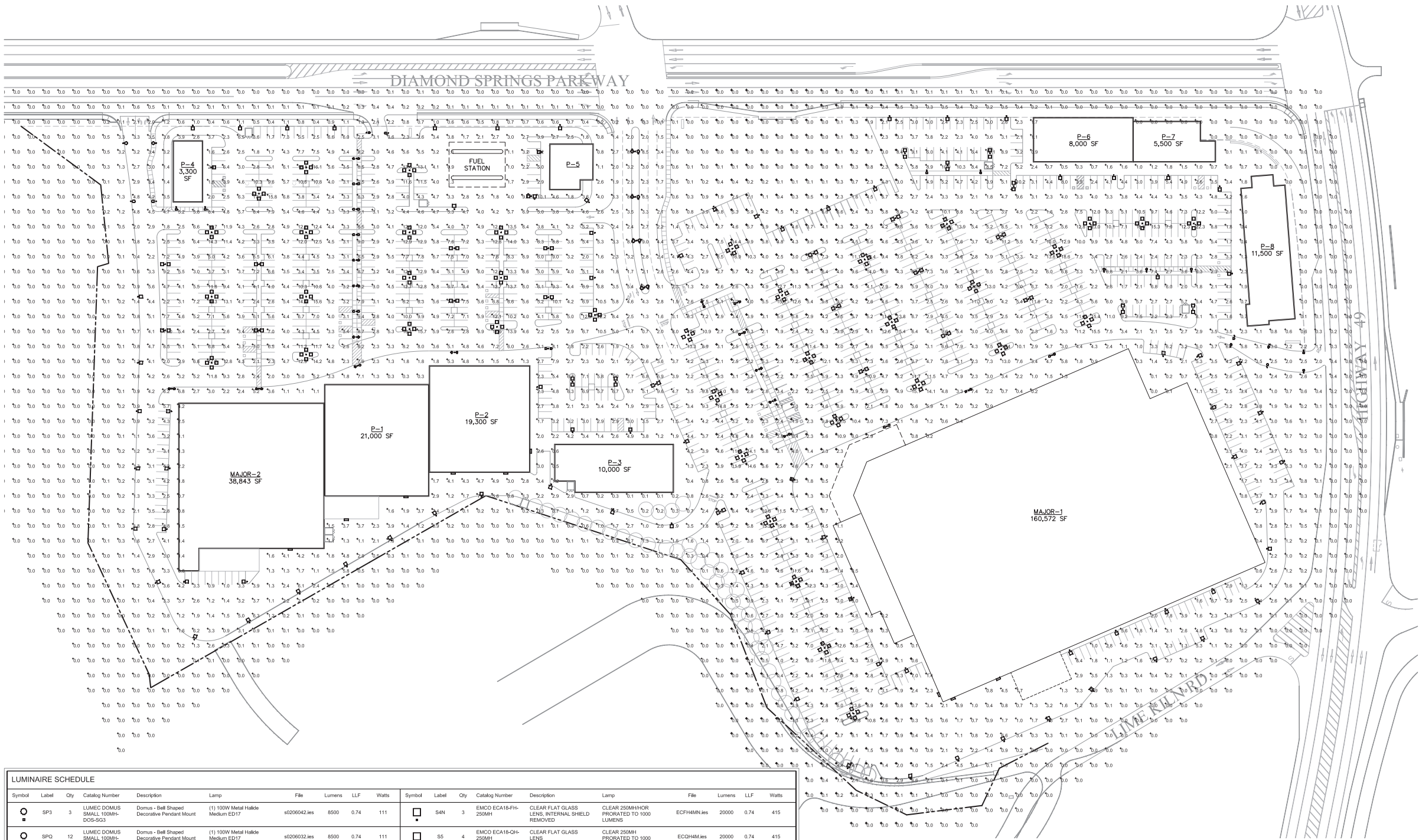
Source: Adams Landscape Design (January 15, 2010).



Michael Brandman Associates

33370001 • 02/2010 | 3-8b_LP.ai

Exhibit 3-8b Landscaping Plan



LUMINAIRE SCHEDULE													
Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts	Symbol	Label	Qty	Catalog Number
	SP3	3	LUMEC DOMUS SMALL 100MH-DOS-SG3	Domus - Bell Shaped Decorative Pendant Mount	(1) 100W Metal Halide Medium ED17	s0206042.jes	8500	0.74	111		S4N	3	EMCO ECA18-FH-250MH
	SPQ	12	LUMEC DOMUS SMALL 100MH-DOS-SGQ	Domus - Bell Shaped Decorative Pendant Mount	(1) 100W Metal Halide Medium ED17	s0206032.jes	8500	0.74	111		S5	4	EMCO ECA18-QH-250MH
	SP2Q	22	LUMEC DOMUS SMALL 100MH-DOS-SGQ	Domus - Bell Shaped Decorative Pendant Mount	(1) 100W Metal Halide Medium ED17	s0206032.jes	8500	0.74	222		S23	6	EMCO ECA18-3H-250MH
	SD13	4	LUMEC DOMUS 250MH-QMS50-SG3	Domus - Bell Shaped Decorative Pendant Mount	(1) 250W Metal Halide Mogul ED28	S0107111.JES	20000	0.74	423		S25	19	EMCO ECA18-QH-250MH
	A2R	4	LUMEC DOMUS 360MH-QMS50-SG3	Domus - Bell Shaped Decorative Pendant Mount with rotated optics	(1) 360W Metal Halide Mogul ED28	S0107111.JES	20000	0.74	848		S2R2	2	EMCO ECA18-QH-250MH
	S3	30	EMCO ECA18-3H-250MH	CLEAR FLAT GLASS LENS	CLEAR 250MH/HOR PRORATED TO 1000 LUMENS	EC3H4M.jes	20000	0.74	415		S45	38	EMCO ECA18-QH-250MH
	S3HS	18	EMCO ECA18-3H-250MH+HS	CLEAR FLAT GLASS LENS	CLEAR 250MH/HOR PRORATED TO 1000 LUMENS	EC3H4MS.jes	20000	0.74	415		WPFT	3	GARDCO 101-FT-175MH
	S4	28	EMCO ECA18-FH-250MH	CLEAR FLAT GLASS LENS	CLEAR 250MH/HOR PRORATED TO 1000 LUMENS	ECF4H4M.jes	20000	0.74	415		WPWT	6	GARDCO 101-WT-175MH

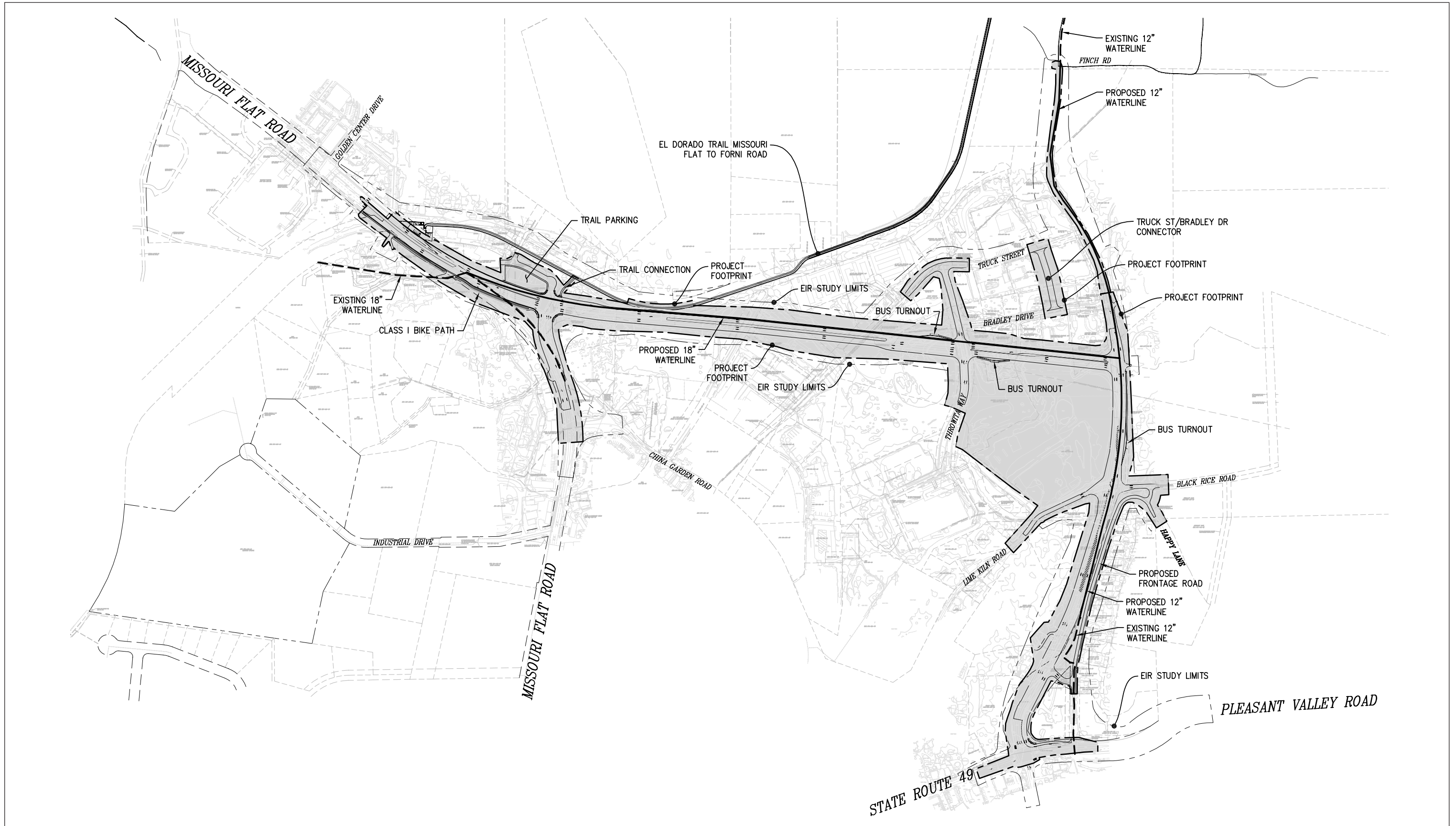
Source: Ken Rubitsky & Associates (November 25, 2009).



Michael Brandman Associates

33370001 • 02/2010 | 3-9_Photometric_Plan.ai

Exhibit 3-9
Photometric Plan



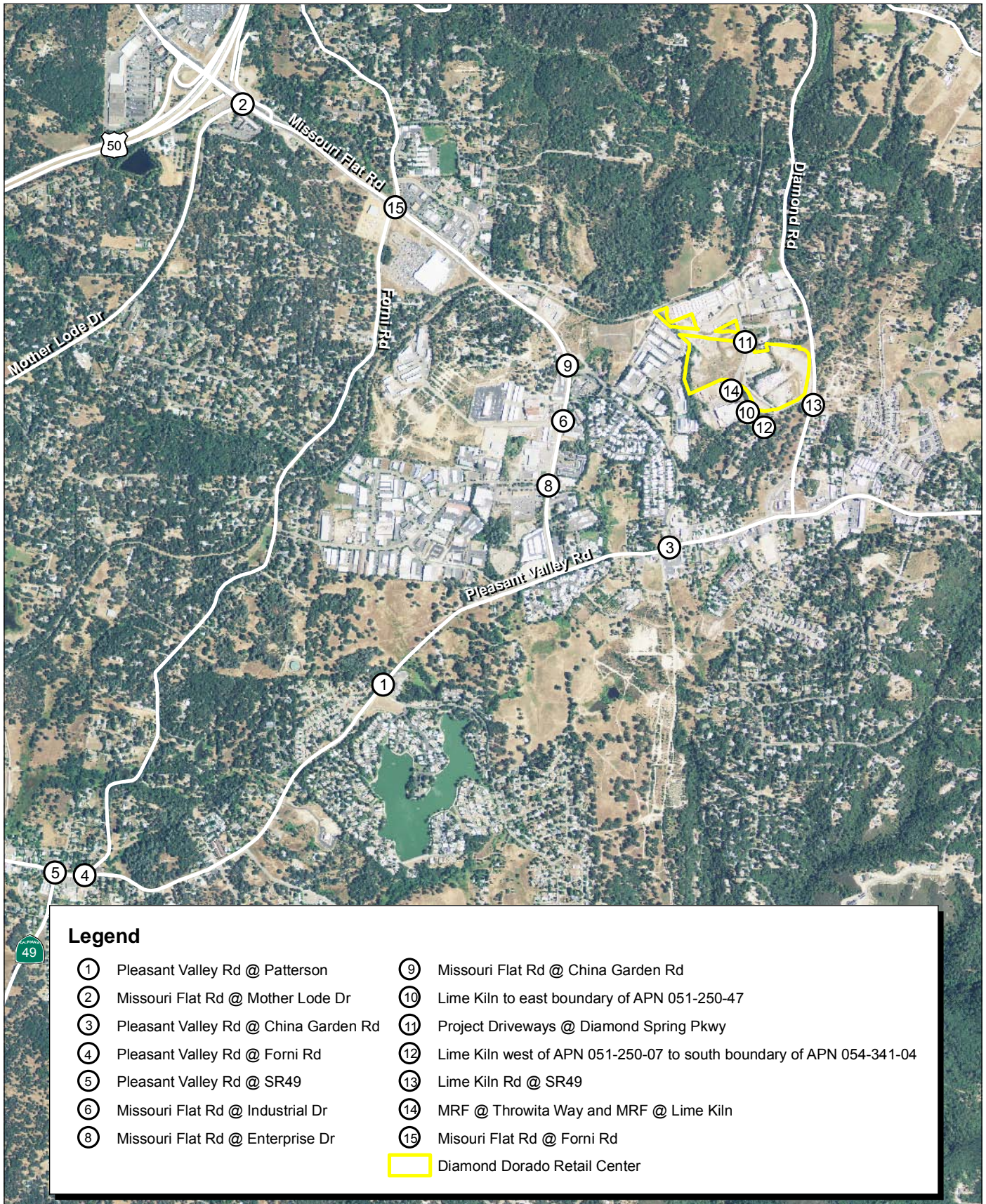
Source: El Dorado Department of Transportation (November 17, 2009).



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33370001 • 02/2010 | 3-10_DSP.ai

Exhibit 3-10
Diamond Springs Parkway



Source: CTA Engineering & Surveying (2010) & NAIP for El Dorado County (2009), MBA Field Survey Data (2011).

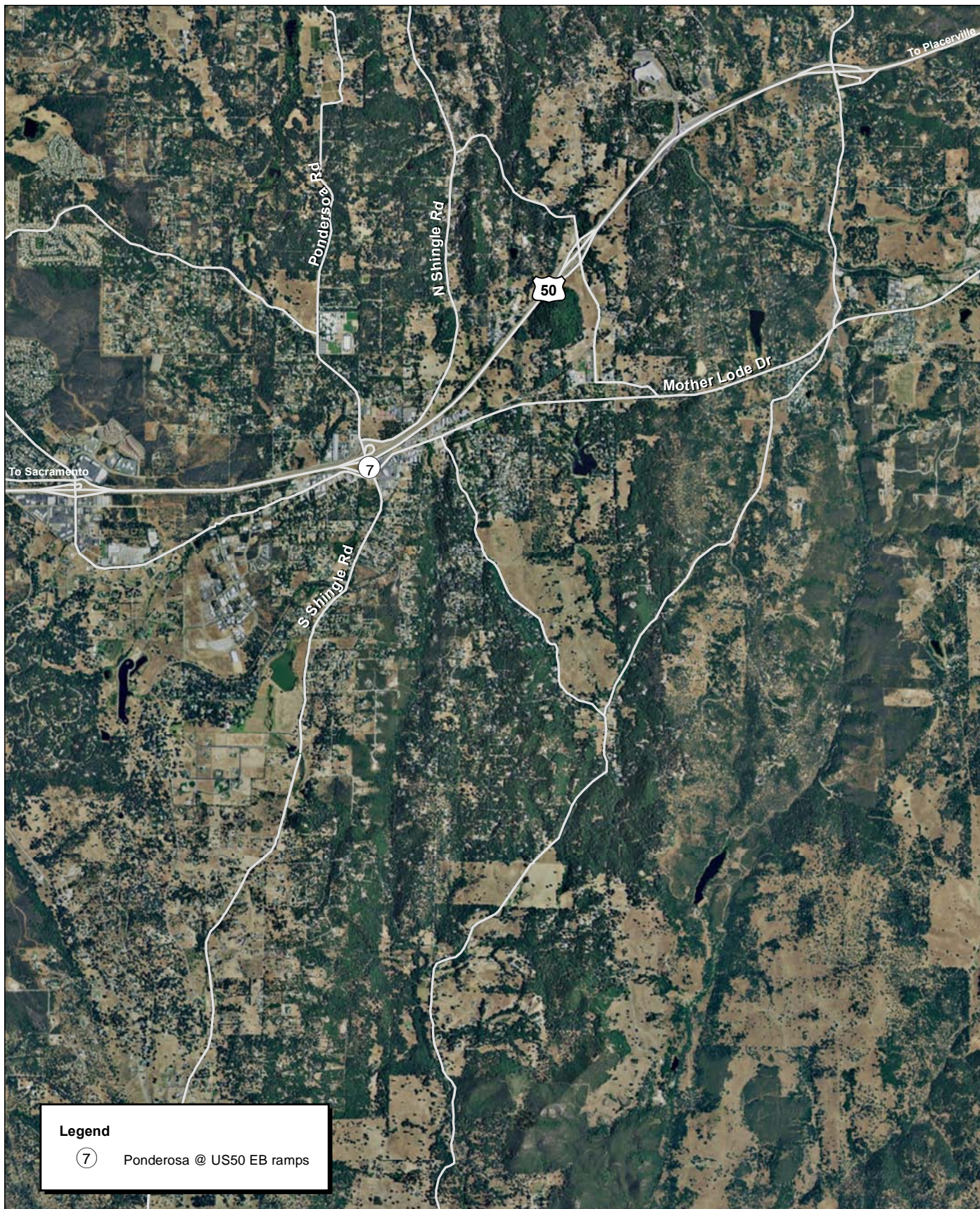


Michael Brandman Associates

33370001 • 12/2011 | 3-11a_site_location.mxd



Exhibit 3-11a Site Location Map



Source: ESRI World Imagery (2011) & CTA Engineering & Surveying (2010).



3,600 1,800 0 3,600
Feet

Michael Brandman Associates

33370001 • 08/2011 | 3-11b_site_location_map

Exhibit 3-11b Site Location Map

EL DORADO COUNTY • DIAMOND DORADO RETAIL CENTER
STAFF REPORT-EXHIBIT 3-11b (DRAFT) REPORT
12-1084 F(2) 133 of 572

Table 3-2: Summary of Offsite Roadway Improvements

Map #	Location	Work Description
1	Pleasant Valley Road/Patterson Road	Add westbound (WB) left-turn lane onto Pleasant Valley Road. Construct signal.
2	Missouri Flat Road/ Mother Lode Drive	Conversion of SB right-turn lane to a through right turn lane; addition of an SB through lane south of Mother Lode Drive; and conversion of dual EB right-turn lanes from EB US-50 to Missouri Flat Road into a single right turn lane
3	Pleasant Valley Road/ China Garden Road	Add right-turn lane to SB China Garden Road onto Pleasant Valley Road
4	Pleasant Valley Road/Forni Road	Add turn pockets left and right on Forni Road onto Pleasant Valley Road.
5	Pleasant Valley Road/SR-49	Add right-turn lane from SR-49 onto Pleasant Valley Road. Extend turn pocket on Pleasant Valley Road from Forni Road to SR-49
6	Missouri Flat Road /Industrial	Add right turn lane from Industrial onto Missouri Flat Road.
7	Ponderosa/US-50 EB ramps	Convert WB right turn lane to a free right-turn lane.
8	Missouri Flat Road/Enterprise	Add right-turn lane from Enterprise onto Missouri Flat Road
9	Missouri Flat Road/ China Garden Road	Add WB right-turn lane from China Garden Road onto Missouri Flat Road.
10	Lime Kiln Road (SR-49) to east boundary of APN 051-250-47 (see site plan)	Construct Lime Kiln Road from SR-49 to east boundary of APN 051-250-47 in accordance with DISM Std Plan 101A with 40-foot width
11	Lime Kiln Road west of APN 051-250-07 to south boundary of APN 054-341-04 (see site plan)	Realign the residential portion of Lime Kiln Road from the west boundary of APN 051-250-07 to the south boundary of APN 054-341-04 in accordance with DISM Std Plan 101B with 24-foot road tapering to match existing road
12	Project driveways/Diamond Springs Parkway	Deceleration lanes
13	Lime Kiln Road/SR-49	Traffic Signal
14	MRF/Lime Kiln Road and MRF/Throwita Way	Driveway improvements
15	Missouri Flat Road/Forni Road	Add SB through lane to Missouri Flat Road.

3.6 - Construction Scheduling, Phasing, and Environmental Commitments

3.6.1 - Project Construction

For the purposes of this environmental analysis, the EIR reflects the description of the Project provided in the application material submitted to the El Dorado County Development Services

Department. Specifically, this EIR is based on the understanding that construction of the DDRC Project would utilize the El Dorado County Department of Transportation's Diamond Springs Parkway to provide access to the site. Additionally, the construction timeline of beginning in summer 2011 and completion by spring 2012, has been assumed throughout the EIR. While this construction timeline is no longer possible, it has been maintained as an assumption in this document to present a conservative, worst-case scenario analysis. Using the construction timeline of summer 2011 to spring 2012 allows for the analysis of the worst-case scenario because the air quality emission factors for this time period are higher than for future years, resulting in a more conservative emissions analysis. Should the project schedule be protracted to a point where additional analysis is needed under CEQA, a supplemental document would be prepared. Furthermore, if the Diamond Springs Parkway Project is substantially changed, supplemental environmental documents for the DDRC may be required.

Project construction would progress as follows:

- Acquisition of necessary easements and right-of-ways
- Rerouting of MRF traffic/access
- Rough grading and site staking
- Excavation and site work
- Structural facility construction
- Electrical, process mechanical, and instrumentation installation
- Paving and striping
- Architectural and landscaping application
- Startup and testing

Rerouting of MRF Traffic. As discussed above, construction activities will need to be coordinated with the MRF. Under the Proposed Project, a new access route would be created for the MRF from Lime Kiln Road prior to demolishing the Throwita Way access. This will require site planning and coordination to be conducted with the MRF operators to implement the proposed DDRC improvements and new MRF access road.

Rough Grading and Site Staking. Survey staking would be used to define the limits of construction. Underbrush, vines, and small trees that would interfere with construction and operation of the Project would be removed from the site.

Excavation and Site Work. After the site is cleared of underbrush, small trees, and structures, grading would begin. Following rough grading, additional excavation would bring the site to final grade and prepare the soil for underground piping and structural slabs. Site work would involve installing large underground pipes (6-inch-diameter or larger), manholes, structural foundations, curbs, gutters, and sidewalks. Excavation for concrete foundations, retaining wall footings, and underground drainage pipes would be performed with excavators and/or backhoes.

As part of construction of the Parkway, and prior to the construction of the DDRC, El Dorado County DOT may export up to approximately 60,000 cubic yards of soil from the DDRC site to the Parkway site. However, no written agreement for the soil exportation is in place, and DOT would only take soil that is suitable for road base and only if the timing of phasing is appropriate. In the event that the full 60,000 cubic yards on the DDRC project site is not used by El Dorado County DOT, it either will be balanced onsite or will be trucked to an offsite disposal facility within 20 miles of the DDRC project site. For conservative estimates, this Project assumes that up to 28,000 cubic yards of soil would be trucked to an offsite disposal facility during grading activities. The DDRC Project would balance the remaining soil onsite.

Structural Facility Construction. This phase would consist of compacting and preparing the soil for all structural facilities and the construction of all buildings. Prior to pouring concrete, structural forms, rebar, and conduits would be installed for each facility. After the concrete is poured, it would be finished and cured before the forms are removed. After the concrete footings are established, slabs and walls would be poured, and the overhead structural steel and roof decking would be erected.

Paving and Striping. All parking areas, roads, and designated locations would be paved and striped. Paving would be performed incrementally throughout the site area as large construction and non-rubber tread equipment are removed from the site.

Electrical, Process Mechanical, and Instrumentation. After the structures have been erected and roofed, electrical equipment (machinery control consoles, switchboards, lighting, etc.) would be installed.

3.6.2 - Project Environmental Commitments.

The Proposed Project would incorporate a variety of sustainability features that would reduce its demand for resources, utilize non-toxic materials, and promote waste reduction.

Energy Efficiency

- T-8 fluorescent lamps and electronic ballasts would be utilized. These are the most energy-efficient lighting systems available and reduce the energy load of a single store by approximately 15 to 20 percent compared with conventional lighting.
- Light Emitting Diode (LED) lighting would be installed in all internally illuminated building signage. LED technology is greater than 70 percent more energy-efficient than fluorescent illumination and provides an extended life span of 12 to 20+ years.
- Daylight harvesting systems (e.g., skylights, electronic dimming ballasts, computer-controlled daylight sensors) would automatically and continuously dim all of the lights as the daylight contribution increases.
- Nighttime lighting dimming would reduce illumination to 65 percent during the late-night hours.

- Super-high-efficiency packaged heating, ventilation, and air conditioning (HVAC) units that have a weighted Energy Efficiency Ratio of 11.25 would be utilized. This ratio is 10 percent higher than the industry standard, weighted average.
- Refrigeration waste-heat recapture systems would heat water in the kitchen preparation areas. On average, waste heat accounts for 70 percent of the hot-water heating needs.
- A white membrane roof with a high solar reflectivity would lower the cooling load by approximately 8 percent.
- Occupancy sensors in non-sales areas would automatically turn off the lights when the space is unoccupied.
- Shade trees in the parking lot would reduce heat adjacent to the store and require less usage of electricity to cool the store.
- Fans may be used instead of air conditioning during certain periods to reduce electricity usage.

Water Efficiency

Restroom sinks would use sensor-activated, low-flow faucets. The low-flow faucets reduce water usage by 84 percent, while the sensors, which regulate the amount of time the faucets flow, save approximately 20 percent in water usage over similar, manually operated systems. Drought-resistant plants would also reduce water usage.

3.7 - Intended Uses of This Draft EIR

This Draft EIR is being prepared by El Dorado County to assess the potential environmental impacts that may arise in connection with actions related to implementation of the Proposed Project. Pursuant to CEQA Guidelines Section 15367, El Dorado County is the lead agency for the Proposed Project and has discretionary authority over the Proposed Project and project approvals. The Draft EIR is intended to address all public infrastructure improvements and all future developments that are within the parameters of, or required by, the Proposed Project.

3.7.1 - Discretionary and Ministerial Actions

As identified previously, discretionary approvals and permits are required by El Dorado County for a General Plan Amendment (GPA) and Rezone to General Commercial - Planned Development (CG-PD). Accordingly, the Project would require the following discretionary approvals and actions, including:

- Certification of a final Environmental Impact Report for the GPA/Rezone and PD Overlay Applications under the requirements of CEQA, as amended;
- Adoption of a Mitigation Monitoring and Reporting Plan, Findings of Fact, and Statement of Overriding Considerations (if necessary);

- Adoption of an ordinance approving a Development Agreement (DA), if one is negotiated and agreed to by the parties;
- Approval of the Application for a General Plan Amendment (GPA);
- Approval of the Application for Rezone;
- Adoption of a funding agreement and financing plan for major infrastructure improvements associated with the Project; and
- Adoption of a Development Plan as the official plan for DDRC, and approval of Tentative Parcel Map (TPM).

Future ministerial actions at the County level may include, but are not limited to, the following:

- Approval by the County DOT for frontage improvements related to Diamond Springs Parkway and Caltrans for improvements related to Diamond Road/SR-49, north of Diamond Springs; and
- Building and encroachment permits and/or approvals for sewer, water, and drainage improvements (County Planning and DOT, EID, PG&E, etc.).

The Project may require discretionary agency approvals for the actions listed below:

- California Department of Fish and Game (CDFG). Approval of appropriate potential streambed alteration agreements, pursuant to Section 1600 of the Fish and Game Code.
- U.S. Army Corps of Engineers (USACE). Approval of appropriate permits under Section 404 of the CWA, which may include an evaluation of cultural resources under Section 106 of the National Historic Preservation Act. If an USACE permit is required, the Project will need to comply with Section 7 of the Federal Endangered Species Act.
- Regional Water Quality Control Board (RWQCB). Water quality certification under Section 401 of the Clean Water Act if a 404 permit is required, and approval for coverage under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit (General Permit) under Section 402 of the Clean Water Act (CWA). Under the General Permit, a Storm Water Pollution Prevention Plan (SWPPP) must be prepared before any construction activities begin.
- State Water Resources Control Board. Spill Prevention Control and Countermeasure Plan (SPCCP) will be prepared for the Project in accordance with the 40 CFR 112.
- El Dorado County Air Quality Management District (EDCAQMD). Construction permits and dust mitigation plan.

3.7.2 - Responsible and Trustee Agencies

A number of other agencies in addition to El Dorado County will serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. This Draft EIR will provide environmental information to these agencies and other public agencies, which may be required to grant approvals or coordinate with other agencies, as part of project implementation. These agencies may include but are not limited to the following:

- U.S. Fish and Wildlife Service (USFWS)
- California Department of Fish and Game (CDFG)
- California Department of Transportation (Caltrans)
- Central Valley Regional Water Quality Control Board (RWQCB)

SECTION 4: ENVIRONMENTAL IMPACT ANALYSIS

Introduction and Organization of the Analysis

Organization of Issue Areas

This Draft Environmental Impact Report (Draft EIR) provides analysis of impacts for those environmental topics where it was determined in the Notice of Preparation or through subsequent analysis that the Proposed Project would result in “potentially significant impacts.” Sections 4.1 through 4.11 discuss the environmental impacts that may result with approval and implementation of the Proposed Project.

The following environmental issues are addressed in Section 4:

- Aesthetics, Light, and Glare
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise
- Public Services and Utilities
- Transportation

Each environmental issue area in Sections 4.1 through 4.11 contains a description of:

1. The environmental setting as it relates to the specific issue.
2. The regulatory framework governing that issue.
3. The methodology used in identifying the issue.
4. The standard, or threshold, for determining the significance of a potential environmental impact.
5. An evaluation of the project-specific impacts and identification of mitigation measures.
6. A determination of the level of significance after mitigation measures are implemented.

Determination of Impact Significance

Determining the severity of project impacts is fundamental to achieving the objectives of CEQA. CEQA Guidelines Section 15091 requires that decision-makers mitigate, as completely as is feasible,

the significant impacts identified in the Final EIR. If the EIR identifies any significant unmitigated impacts, CEQA Guidelines Section 15093 requires decision-makers, in approving a project, to adopt a statement of overriding considerations that explains why the benefits of the project outweigh the adverse environmental consequences identified in the EIR.

The level of significance for each impact examined in this Draft EIR was determined by considering the predicted magnitude of the impact against the applicable threshold. Thresholds were developed using criteria from El Dorado County; CEQA Guidelines and checklist; state, federal and local regulatory schemes; local/regional plans and ordinances; accepted practices; consultation with recognized experts; and other professional opinions.

Impact Analysis and Mitigation Measure Format

The format adopted in this EIR to present the evaluation of impacts is described and illustrated below.

Summary Heading of Impact

Impact AES-1:	An impact summary heading appears immediately preceding the impact description (Summary Heading of Impact in this example). The impact abbreviation identifies the section of the report (AES for Aesthetics, Light, and Glare in this example) and the sequential order of the impact (1 in this example) within that section. To the right of the impact number is the impact statement, which identifies the potential impact.
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Impact Analysis

A narrative analysis follows the impact statement.

Level of Significance Before Mitigation

This section identifies the level of significance of the impact before any mitigation is proposed.

Mitigation Measures

In some cases, following the impact discussion, reference is made to state and federal regulations and agency policies that would fully or partially mitigate the impact. In addition, policies and programs from applicable local land use plans that partially or fully mitigate the impact may be cited.

Project-specific mitigation measures are set off with a summary heading and described using the format presented below:

MM AES-1a	Project-specific mitigation is identified that would reduce the impact to the lowest degree feasible. The mitigation number links the particular mitigation to the impact with which it is associated (AES-1 in this example); the letter identifies the sequential order of that mitigation for that impact (a in this example).
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Level of Significant After Mitigation

This section identifies the resulting level of significance of the impact following mitigation.

Abbreviations used in the impact and mitigation measure numbering are:

Code	Environmental Issue
AES	Aesthetics, Light, and Glare
AIR	Air Quality
BIO	Biological Resources
CUL	Cultural Resources
GEO	Geology, Soils, and Seismicity
HAZ	Hazards and Hazardous Materials
HYD	Hydrology and Water Quality
LU	Land Use
NOI	Noise
PSU	Public Services and Utilities
TRANS	Transportation

4.1 - Aesthetics, Light, and Glare

4.1.1 - Introduction

This section describes the existing aesthetics, light and glare, and the potential effects on the project site and the surrounding vicinities from the development of the Diamond Dorado Retail Center (DDRC). Descriptions and analysis in this section are based on site reconnaissance performed by Michael Brandman Associates (MBA) and a review of El Dorado County General Plan policies, zoning ordinances, and the Missouri Flat Design Guidelines.

4.1.2 - Environmental Setting

Aesthetic Character

Regional Setting

El Dorado County is located in the foothills of the northern Sierra Nevada west of the State of Nevada. Mountainous terrain makes up the eastern edge of the County, while urbanized areas such as El Dorado Hills and Placerville exist in the western portion of the County. Elevations range from 200 feet in the foothills to the west, to more than 10,000 feet along the Sierra Nevada crest on the edge of the Lake Tahoe Basin. The County has a broad range of landscapes that change with the elevation, creating diverse environments, natural communities, and landforms. Rolling hills dotted with mature oaks and oak woodlands, agricultural land, apple orchards and vineyards, evergreen forests and snow-capped mountains, scenic rivers, alpine lakes, and historic structures all contribute to the visual character found in the County. This broad diversity is an important element of El Dorado County's visual heritage and one that many residents value as part of their quality of life.

Local Setting

The Proposed Project is located within unincorporated El Dorado County, north of the community of Diamond Springs and south of the Missouri Flat Road/US-50 Interchange and the City of Placerville (Exhibit 3-1). The Diamond Springs area is characterized by a mixture of new and historic commercial buildings, industrial areas, and residential areas amongst the varied terrain of the Sierra Nevada Foothills. Long-range views in all directions consist of nearby hilltops and ridgelines.

Project Site

The project site totals approximately 30.63 acres and includes areas of highly disturbed land, weedy vegetation, and large shrubs and trees. The western boundary of the project site is an intermittent drainage that is part of a riparian corridor. Large portions of the project site are currently used, or have been used in the past, for storage and parking related to industrial or construction activities. Much of the project site consists of disturbed soils, and large areas of grading are evident. Stockpiles of soil, gravel, refuse, concrete, and other materials are present in several locations. The average elevation of the site is approximately 1,800 feet above mean sea level.

Throwita Way traverses the middle of the project site from north to south. Lime Plant Road enters the project site from the south from Lime Kiln Road and connects to Throwita Way.

Surrounding Land Uses and Views

The following describes the land uses and views surrounding the project site as well as views of the project site from those surrounding land uses. Exhibit 4.1-1 and Exhibit 4.1-2 provide views of the project site and views of the surrounding land uses, respectively.

North

Land uses north of the project site include industrial land uses along Truck Street and Bradley Drive, including a mini storage facility, auto mechanic shop, and recycling center. A single residence is located at the corner of Bradley Drive and Diamond Road (SR-49). Beyond the industrial land uses, undeveloped land, rural residences, and wooded areas are present. Upon its completion, the separately proposed Diamond Springs Parkway would be directly adjacent to the northern boundary of the DDRC project site.

Views from the project site to the north are dominated by the industrial land uses, consisting of buildings, tanks, and vehicles. Vegetation obstructs some views to the north. A vacant parcel, electrical lines, and telephone lines are also visible. Views of the project site from the industrial land uses consist of highly disturbed land, ruderal vegetation, and areas of large shrubs and trees.

East

Diamond Road (SR-49) borders the project site on the east. Beyond Diamond Road (SR-49) is an undeveloped area consisting of weedy vegetation and large trees. Further east are several scattered rural residences. A small residential subdivision is located southeast of the project site. Residences are located southeast of the project site at the corner of Black Rice Road and Diamond Road (SR-49).

Views from the project site to the east are dominated by Diamond Road (SR-49) and the adjacent vegetated hillside. Vehicles traveling along Diamond Road (SR-49) and residences southeast of the project site have unobstructed views of the project site's highly disturbed land and ruderal vegetation and a cyclone fence that encloses this portion of the project site.

South

The El Dorado Material Recovery Facility (MRF) and Lime Kiln Road are located adjacent to the southern boundary of the project site. Beyond the MRF, along Lime Kiln Road, are several residences and areas of undeveloped woodlands. The community of Diamond Springs is located approximately 0.30 mile south of the project site on Pleasant Valley Road (SR-49).

Views from the project site to the south consist of the MRF and areas of large shrubs and vegetation. Vegetation and topography screen views of the project site from most of the residences to the south. A single residence located on the north side of Lime Kiln Road, directly adjacent to the project site, has mostly unobstructed views of the southern portion of the project site. Topography screens views of the remainder of the project site from this residence.



Photograph 1: View of project site from Black Rice Road looking northwest.



Photograph 2: View of project site looking east from Throwita Way.



Photograph 3: View of project site's frontage on Diamond Road (SR-49).



Photograph 4: View of proposed MRF access from Lim Kiln Road.

Source: Michael Brandman Associates (2010).



Michael Brandman Associates

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Exhibit 4.1-1 Views of the Project Site



Photograph 1: Looking east along Lime Kiln Road.



Photograph 2: View from project site of residence to the southeast.



Photograph 3: View of MRF facility from Throwita Way looking west.



Photograph 4: View of residence near proposed MRF access road.

Source: Michael Brandman Associates (2010).



Michael Brandman Associates

33370001 • 05/2010 | 4.1-2_photos_from_ps.cdr

Exhibit 4.1-2 Views from the Project Site

West

A riparian corridor with an intermittent stream is located along the project site's western boundary. Land uses west of the project site consist of commercial and industrial land uses along Chuckwagon Way and Stage Court. Uses include a mini storage facility, auto mechanic shops, small manufacturing operations, and small storage warehouses. A mobile home park is located between these uses and the commercial uses on Missouri Flat Road.

Views west of the project site are dominated by the adjacent riparian corridor and the commercial/industrial land uses beyond, specifically the mini storage facility. Industrial uses, telephone, and phone lines are clearly visible to the northwest. Views of the project site from the west are mostly obstructed by the riparian corridor.

Scenic Highways

There are no Scenic Highways in the project area. Within El Dorado County, the nearest Officially Designated Scenic Highway is the portion of United States Route 50 (US-50) east of its junction with SR-49, which is located more 1.73 miles northeast of the project site (California State Scenic Highway Mapping System 2008). While the portion of SR-49 within El Dorado County has been identified by the State of California as a potential scenic highway, the County has not officially designated it as a scenic highway in the General Plan or Ordinance Code. The El Dorado County General Plan does not designate any roadways within the project vicinity as "county scenic roads" (El Dorado County 2004). Furthermore, the El Dorado County General Plan EIR does not include the portion of SR-49 near the project site as a "viewing area." (cite the GP EIR table, page # showing the identified "vista area")

Light and Glare

Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare, waste energy, and if designed incorrectly, could be considered unattractive. Light that falls beyond the intended area is referred to as "light trespass." Types of light trespass include spillover light and glare. Minimizing all these forms of obtrusive light is an important environmental consideration. A less obtrusive and well-designed energy efficient fixture would face downward, emit the correct intensity of light for the use, and incorporate energy timers.

Spillover light is light emitted by a lighting installation that falls outside the boundaries of the property on which the installation is sited. Spillover light can adversely affect light sensitive uses, such as residential neighborhoods at nighttime. Because light dissipates as it travels from the source, the intensity of a light fixture is often increased at the source to compensate for the dissipated light. This can further increase the amount of light that illuminates adjacent uses. Spillover light can be minimized by using only the level of light necessary, and by using cutoff type fixtures or shielded light fixtures, or a combination of fixture types.

Glare results when a light source directly in the field of vision is brighter than the eye can comfortably accept. Squinting or turning away from a light source is an indication of glare. The presence of a bright light in an otherwise dark setting may be distracting or annoying, referred to as discomfort glare, or it may diminish the ability to see other objects in the darkened environment, referred to as disability glare. Glare is particularly associated with high light intensity, as measured in candelas, emitted at angles near horizontal (75 to 90 degrees from straight down). Glare can be reduced by design features that block direct line of sight to the light source and that direct light downward, with little or no light emitted at high (near horizontal) angles, since this light would travel long distances. Cutoff-type light fixtures minimize glare because they emit relatively low-intensity light at these angles.

Existing Light and Glare Conditions

Project Site

Minimal sources of light and glare currently exist on the project site. Nighttime lighting may be used within the project site for the areas used for industrial storage. Light and glare is present within the project site when vehicles utilize Throwita Way.

Regional Setting

Areas surrounding the project site contain several sources of lighting and glare that emanate from the surrounding commercial and industrial land uses. The primary sources of the light and glare consist of the MRF, commercial building signage, exterior security lighting, and street and parking lot lighting. Lighting and glare is also present from vehicles utilizing Diamond Road (SR-49), Bradley Drive, Throwita Way, and Truck Street. Upon completion, the Diamond Springs Parkway will contain intersection lighting as well as light and glare emanating from vehicles. Large areas of wooded vegetation and rural residences to the north, east, and south of the project site contain little to no lighting.

4.1.3 - Regulatory Framework

State

California Scenic Highway Program

The California Scenic Highway Program is intended to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. A highway may be designated scenic, depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. A scenic corridor is the land generally adjacent to and visible from the highway and is identified using a motorist's line of vision. The corridor protection program seeks to encourage quality development that does not degrade the scenic value of the corridor.

State Scenic Highways are classified as either "eligible" or "officially designated." The status of a State Scenic Highway changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation

(Caltrans) for scenic highway approval, and receives notification from Caltrans that the highway has been officially designated as a scenic highway. When a city or county nominates an eligible scenic highway for official designation, it must identify and define the scenic corridor of the highway. The agency must also adopt ordinances to preserve the scenic quality of the corridor or document such regulations that already exist in various portions of local codes. These ordinances make up the scenic corridor protection program. Minimum requirements for scenic corridor protection include:

- Regulation of land use and density of development
- Detailed land and site planning
- Control of outdoor advertising (including a ban on billboards)
- Careful attention to and control of earthmoving and landscaping
- Careful attention to design and appearance of structures and equipment

Local

El Dorado County General Plan

As part of the Proposed Project, a proposed General Plan Amendment and rezone would designate the site for commercial uses. As such, the Project would be required to comply with the General Plan policies in Table 4.1-1 pertaining to the new Commercial designation:

Table 4.1-1: Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
Policy 2.3.1.1: The County shall continue to enforce the tree protection provisions in the Grading Erosion and Sediment Control Ordinance and utilize the hillside road standards.	Consistent: The Project would abide by all tree protection provisions in the Grading Erosion and Sediment Control Ordinance. No hillside roads would be constructed as a part of this Project.
Policy 2.4.1.4: Strip commercial development shall be precluded in favor of clustered contiguous facilities. Existing strip commercial areas shall be developed with common and continuous landscaping along the street frontage, shall utilize common driveways, and accommodate parcel-to-parcel internal automobile and non-automobile circulation where possible.	Consistent: The Project consists of several retail and office spaces clustered in areas throughout a contiguous facility with internal driveways and pedestrian walkways for efficient circulation. Accordingly, the Project would not be considered “strip commercial development.”
Policy 2.5.2.2: New commercial development should be located nearby existing commercial facilities to strengthen existing shopping locations and avoid strip commercial.	Consistent: While the Project constitutes a General Plan Amendment and rezone that would convert the existing industrial land uses to General Commercial, the Proposed Project is consistent with Policy 2.5.2.2 because existing commercial facilities are located on Missouri Flat Road and on Pleasant Valley Road (SR-49), both less than 0.30 mile from the project site. The proximity of the Project to existing commercial facilities serves to strengthen existing shopping locations while avoiding the potential for “strip commercial” to develop in the region.

Table 4.1-1 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
Policy 2.5.2.3: New community shopping centers should also contain the applicable design features of Policy 2.5.2.1	Consistent: Consistent with Policy 2.5.2.1 (which pertains to neighborhood commercial centers), the Project has been designed in order to place stores in clustered areas throughout a contiguous facility. The building coverage is within both the General Plan and Zoning Ordinance maximums for the site's size. No outdoor sales or automotive repair facilities are proposed. Extensive landscaping and walkways are provided along project boundaries and throughout the project site. Bicycle access to the site would be provided via a crosswalk on Diamond Springs Parkway, leading to the El Dorado Multi Use Trail, and bicycle parking would be provided throughout the project site. No commercial centers are currently adjacent to the project site; however, pedestrian connections to future adjacent centers could be implemented as appropriate and feasible.
Policy 2.8.1.1: Development shall limit excess nighttime light and glare from parking area lighting, signage, and buildings. Consideration will be given to design features, namely directional shielding for street lighting, parking lot lighting, sport field lighting, and other significant light sources, that could reduce effects from nighttime lighting. In addition, consideration will be given to the use of automatic shutoffs or motion sensors for lighting features in rural areas to further reduce excess nighttime light.	Consistent: Lighting included in the Proposed Project would be appropriately shielded in order to reduce light pollution, glare, and light trespass.
Source: El Dorado County General Plan, 2004; MBA, 2010.	

El Dorado County Ordinance Code*Chapter 17.14.170 Outdoor Lighting*

This chapter of the Ordinance Code sets forth policies to ensure that the creation of artificial light and glare is controlled to the extent that unnecessary and unwarranted illumination of an adjacent property will not occur. The policies include but are not limited to outdoor lighting standards and lighting plans requirements.

Chapter 17.16 Signs

This chapter of the Ordinance Code provides minimum standards regulating and controlling the size, height, structural design, quality of materials, construction location, electrification, and maintenance of all signs and sign structures.

Chapter 17.18.090 Landscaping and Buffering

Chapter 17.18.090 provides standards for parking lot landscaping and requires that landscaping buffers be implemented along property boundaries where parking facilities abut or adjoin a public road, property under different ownership or zoning district. Parking areas with greater than 10 spaces must designate 5 percent of the gross parking and access area, exclusive of landscape buffers, to landscaping. Additionally, at least one 15-gallon tree must be planted for every 10 parking spaces, exclusive of landscape buffers.

Chapter 17.32.170 General Commercial (CG) Districts

This chapter of the Ordinance Code sets forth standards for development located in areas zoned as General Commercial (CG). The following provisions shall apply in General Commercial (CG) zones unless and until a variance is obtained from the planning commission:

- A. Minimum lot area, ten thousand square feet or larger as determined by the health department if on a septic system;
- B. Maximum building coverage, sixty percent, the remaining forty percent will be to provide open space, parking, and circulation;
- C. Minimum lot width, sixty feet;
- D. Minimum yard: front, ten feet; sides and rear, five feet or zero feet and fireproof wall without opening; provided, however, that all hotel and motel structures shall have at least five feet side and rear yards;
- E. Maximum building height, fifty feet;
- F. Signs allowed by right, two signs, neither of which shall exceed fifty square feet in total area of any one display surface or one sign not exceeding eighty square feet in area, advertising authorized activities on the premises and subject to all applicable general provisions and exceptions pertaining to signs in Chapters 17.14, 17.16 and 17.18 (Prior code §§ 9419(g) and 9419(h)).

Chapter 17.01.000 Planned Developments (PD)

The Planned Development (PD) overlay is used for more intensive land uses throughout the County, and provides a public or common benefit, both on- and offsite, by clustering intensive land uses to minimize impact on various natural resources, avoid cultural resources, minimize public health concerns, minimize aesthetic concerns, and promote the public health, safety, and welfare.

Chapters 17.02 and 17.04 of the Zoning Ordinance outline the purpose of a Planned Development overlay for commercial development as follows:

- A. To allow use of modern planning and development techniques, effect more efficient utilization of land and to allow flexibility of development;

- B. To aid in the reduction of development costs, and to provide for a combination of different land uses which complement each other but which may not in all aspects conform to the existing zoning regulations;
- C. To encourage a more efficient use of public and/or private services; and
- D. The location of an acceptable planned development land use does not, nor is it intended to create further commercial, residential, agricultural, or industrial development within the area surrounding the planned development zone.

The Proposed Project itself has been designed to conform to El Dorado County's development standards for the CG zone and PD overlay. As previously mentioned, the architectural theme would be consistent with rural structures, both commercial and industrial alike, commonly found in this area. The Project would incorporate both modern uses and configurations while integrating stylistic characteristics from El Dorado County's rich history. In order to further assure that the Project conforms to the County's CG zone and PD overlay, the Project is compatible with the Missouri Flat Design Guidelines, which provide guidelines to ensure continuity with existing development and promote a pedestrian-friendly atmosphere with enhanced public spaces along the corridor.

Missouri Flat Design Guidelines

The Proposed Project has been designed to be compatible with the Missouri Flat Design Guidelines (Guidelines). The Guidelines are voluntary and have been developed to promote continuity and revitalization within the Missouri Flat Road commercial corridor for a more pedestrian-friendly atmosphere with enhanced public spaces. The Proposed Project's consistency with the Guidelines will be reviewed by the County prior to project approval. The Proposed Project has been designed to be compatible with the following standards of the Guidelines:

- Building elements
- Architecture styles
- Exterior wall materials
- Roofing materials
- Site planning
- Landscaping
- Utilitarian aspects of design
- Signage

4.1.4 - Methodology

A description of the project site as it exists was prepared as a result of visits to the project site in September 2007, October 2008, and April 2010. The site plan for the Proposed Project was used to evaluate the potential effects of proposed development on the visual character of the project site and

the nearby area. The analysis focuses on the manner in which development could change the visual elements or features that currently exist on the project site.

The visual impacts of the Proposed Project are analyzed in relation to existing onsite conditions, and adjacent built-up industrial areas. The perception of a visual impact is personal and subjective: what one person may perceive as a negative impact another may find visually pleasing. Even those experienced in urban design principles and architecture can have differing opinions on the visual “quality” of a particular project. Therefore, because of the subjective nature of interpreting visual impacts, this analysis does not rely upon opinion to make a determination as to the significance of impacts.

Rather, the analysis defers to the judgment of County of El Dorado to apply the County’s adopted El Dorado County General Plan, Ordinance Code, and Missouri Flat Design Guidelines. It is assumed that compliance with these adopted documents, as deemed appropriate by the reviewing bodies, would ensure that a project would be substantially consistent with existing development and the direction of future development within the County and, as a result, would not result in significant, negative aesthetic effects.

The visual effects of construction activities are not evaluated in this section because they would be intermittent and temporary. The entire project site is anticipated to be developed in a single construction season, and views of construction activities would depend on where such activities would be focused. Section 3, Project Description includes a construction schedule for the Proposed Project.

4.1.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist of the CEQA Guidelines, aesthetics impacts resulting from the implementation of the Proposed Project would be considered significant if the Project would:

- a.) Have a substantial adverse effect on a scenic vista? (Refer to Section 6.5, Effects Found Not To Be Significant.)
- b.) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway? (Refer to Section 6.5, Effects Found Not To Be Significant.)
- c.) Substantially degrade the existing visual character or quality of the site and its surroundings?
- d.) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

4.1.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate.

Visual Character

Impact AES-1:	The Proposed Project has the potential to substantially degrade the visual character of the project site or its surroundings.
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Impact Analysis

This impact addresses the potential for the Proposed Project to substantially degrade the visual character of the project site and its surrounding area.

Diamond Dorado Retail Center

The project site consists of approximately 30.63 acres of disturbed land, weedy vegetation, and large shrubs and trees. A single structure, consisting of office and garage space, is located near the south center of the project site and would be demolished prior to project construction. Large portions of the project site are currently used or have been used in the past for storage and parking for the nearby industrial land uses. Much of the project site consists of disturbed soils, and large areas of grading are evident. Stockpiles of soil or gravel are present in several locations.

Design and Appearance

The Proposed Project would construct nine commercial/retail buildings totaling 280,515 square feet on approximately 27.61 acres of the 30.63-acre project site. The Project would include one large, one-story retail store, one medium-sized, one-story retail store, up to seven smaller, one-story retail/office buildings, and a fuel station (Exhibit 3-2).

The architectural theme of the proposed buildings would be consistent with rural structures commonly found in this area, mixing modern uses and configurations while borrowing stylistic characteristics from El Dorado County's history. The buildings would have a combination of gable or shed roofs with cornice-topped walls and utilize rust accented metal roofing, stucco, vertical siding, and board and batten siding. Pedestrian plazas with trellises, accent planting, and seating, would provide meeting or resting places and opportunities for outdoor dining. The proposed pedestrian plazas would be connected to the buildings via well-defined pedestrian routes. Low walls would visually screen cart storage areas. Rooftop equipment would be screened from offsite view by the building's parapet walls. Layers of trees, accent vegetation, and fencing would screen the view into the adjacent MRF site. Exhibits 3-6a and 3-6b provide preliminary, illustrative renderings of the Proposed Project. Exhibits 3-8a and 3-8b provide preliminary landscaping designs. Both the architectural and landscaping plans have been designed in accordance with the Missouri Flat Design Guidelines.

Building Coverage

The DDRC would consist of 280,515 square feet of commercial/retail space on 27.61 acres. The El Dorado County General Plan determines building coverage based on floor area ratio (FAR). The FAR is calculated as the gross floor area (including multiple stories) divided by the net acreage of the project site. The 280,515 square feet of commercial/retail space used throughout this EIR represents actual building footprint area and does not include potential for multiple story buildings. However, based on site plans and information provided by the Project applicant, only single-story structures would be constructed; therefore, it is assumed that combined, buildings within the DDRC would have a floor to area ratio (FAR) of 0.23 (280,515 square feet ÷ 27.61 acres [1,202,691.6 square feet]), which would be within the General Plan maximum allowable FAR of 0.85 and the Ordinance Code maximum allowable building coverage of 60 percent for commercially designated areas. Should any buildings be constructed as multiple stories, the overall project would be required by El Dorado County to remain below a FAR of 0.85, consistent with the General Plan. Accordingly, the proposed building mass would be compatible with other similar commercial buildings within the Missouri Flat Road and Diamond Springs area.

Building Height

The proposed retail buildings would consist of single-story structures of varying heights not to exceed 50 feet. This would be consistent with the Zoning Ordinance building height limit of 50 feet for General Commercial (CG) districts.

Signage

Project signage would be developed consistent with the Missouri Flat Design Guidelines. The Project would include up to 11 freestanding signs located throughout the project site and along the Project's road frontages. The largest freestanding sign would be approximately 30 feet tall and would be located at the main entrance to the Center on Diamond Springs Parkway. Other freestanding signs would be located at the corner of the Parkway and Diamond Road/SR-49 at Lime Kiln Road and Diamond Road/SR-49 and at the westernmost access point on the future Parkway. Approximately 78 wall-mounted signs would be located on the front, side, and rear elevations of the proposed buildings. Wall-mounted signs would consist of light emitting diode (LED)-illuminated channel letters. The exact number and size of wall-mounted signage would depend on the types of businesses leasing retail space at the DDRC. Appendix B includes the proposed sign plan.

Chapter 17.32.200 of the Zoning Ordinance allows two signs of 50 square feet in area or one sign of 80 square feet in area for General Commercial (CG) districts. The Proposed Project's 11 freestanding signs exceed this limit. Chapter 17.16.000 designates wall signs as exempt from sign area provisions. As required by the exemption, all wall signs must be attached to the wall of a building and cannot Project more than 12 inches beyond the exterior face of the wall. Wall signs may not exceed 20 percent of the total area of the wall. However, because of the unknown number of and size of wall-mounted signs, the Proposed Project may or may not be exempt from sign area provisions. The Project applicant has already submitted a sign plan to El Dorado County for review and approval and

would implement the sign plan as directed, thereby ensuring signs would be consistent with the existing visual character of the surrounding area.

Landscaping

As shown in Exhibit 3-8a and Exhibit 3-8b, the Project would include the establishment of landscaping around most of the project perimeter, throughout the parking areas, and in front of the retail buildings. In addition, landscape planters would be located near the primary entries of the stores and integrated into the cart storage screening walls. Tree species would include those currently approved by El Dorado County. A variety of shrubs, groundcovers, grasses, and perennials would be planted at the tree bases. Vegetative species included in the project landscaping are generally native to the region or are drought-tolerant, and they include a number of flowering varieties. All landscaping has been designed in conformance with the Missouri Flat Design Guidelines and a site-specific landscaping plan would be approved by the County. Implementation of the County-approved landscaping plan would ensure landscaping is provided in a visually appealing manner consistent with the existing visual character of the surrounding area.

Surrounding Area

The site is located adjacent to areas of commercial and industrial land uses. Three residences are located near the project site: at the corner of Bradley Drive and Diamond Road (SR-49), south of the Project and north of Lime Kiln Road near the MRF, and at the corner of Black Rice Road and Diamond Road (SR-49). The residence located on Bradley Drive is not consistent with the parcel's industrial zoning designation. Views of the project site from the residences on Lime Kiln Road and Black Rice Road consist of disturbed industrial land used for storage. The industrial land uses do not possess any unique visual attributes (for example, historic design elements) that could be adversely affected by the Proposed Project. Furthermore, landscaping would be installed along the Proposed Project's boundaries, as required by Chapter 17.18.090 of the El Dorado Ordinance Code, thereby screening the proposed DDRC from view.

Conclusion

In summary, the Proposed Project would develop a large commercial shopping center on a site located in an area used for industrial and commercial purposes. The project site is located within an area that contains existing developed commercial and industrial land uses, and undeveloped land contemplated for future roadway and industrial uses. The proposed buildings would employ contemporary architectural design characteristics intended to provide an appealing retail destination. Landscaping would be provided along street frontages and within parking areas to provide visual screening. Considering the existing highly disturbed industrial nature of the project site, the development of the DDRC would not be considered a degradation of the existing visual character. Furthermore, implementation of Mitigation Measure AES-1 would ensure appropriate visual screening is provided. Accordingly, impacts to visual character resulting from the DDRC would be less than significant.

Material Recovery Facility Access

New access to the MRF would be constructed concurrently with the DDRC Project. Construction of the new access road and driveway, including grading, would occur on approximately 3.02 acres directly adjacent to the southern boundary of the proposed DDRC and Lime Kiln Road. All existing MRF buildings would remain in their current locations with the exception of the gatehouse, which would be relocated to accommodate the new access road. Realignment of the MRF access road would require the construction of a paved road where existing conditions consist of compacted soils surrounded by vegetation (Exhibit 3-2). MRF employees, refuse trucks, and the public would utilize the new access road. Implementation of Mitigation Measure NOI-1 included in this EIR (Section 4.9, Noise) would require the construction of an 8-foot noise barrier wall along the proposed MRF access road, thereby blocking views of the access route. As such, views from the adjacent residential property would change from that of compacted soils and ruderal vegetation to that of a sound wall beyond which a paved road and the landscaped buffer of the DDRC would be located. The visual change from a highly disturbed undeveloped parcel to that of a sound wall, paved road, and landscape buffer represents a potentially significant negative impact to the visual character of the project site as seen from the adjoining residential property. Accordingly, mitigation is proposed that would require additional landscaping be provided along the sound wall to screen views of the project site as seen from the adjacent residential property. Implementation of this mitigation would reduce impacts to a less than significant level.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM AES-1 The Project applicant shall complete a final landscaping plan for review and approval by County staff that includes vegetation that appropriately screens views of the Material Recovery Facility (MRF) access road and sound barrier as seen from the residence at the corner of Lime Kiln Road and Lime Plant Road. Screening vegetation shall be located along the access road and sound barrier and be of a type and species that shall provide year-round visual screening.

Level of Significance After Mitigation

Less than significant impact.

Light and Glare

Impact AES-2:	Implementation of the Proposed Project would result in the introduction of new sources of substantial light and glare.
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Impact Analysis

Minimal sources of light and glare currently exist on the project site. Areas surrounding the project site contain several sources of lighting and glare that emanate from the surrounding commercial and

industrial land uses. The primary sources of the light and glare consist of the MRF, commercial building signage, exterior security lighting, and street and parking lot lighting.

Development of the DDRC would include the installation of exterior building lights, freestanding parking lot lights, and building-mounted illuminated signage. Lighting designs would be consistent with the Missouri Flat Design Guidelines and subject to review by El Dorado County. Lighting in the Project's parking areas would include 25-foot-high, 400-watt, single- and dual-headed fixtures. In addition, lighting consisting of 12-foot-high, 175-watt, accent-style luminaires would be located along the Project's frontage to the Parkway. Wall sconces would be mounted at intervals around each of the retail buildings. Exhibit 3-9 includes the Proposed Project's photometric plan. These lighting fixtures have the potential to create unwanted spillover effects onto surrounding properties. However, both the parking lot and building lighting fixtures would be designed with cutoff type fixtures or shielded light fixtures, or a combination of fixture types to cast light downward, thereby providing lighting at the ground level for pedestrian safety while reducing glare to adjacent properties. Furthermore, the Project applicant has submitted the photometric plan to the County identifying lighting fixtures and practices to minimize light trespass onto neighboring properties.

Most of the components of the Proposed Project would not create significant sources of glare on surrounding areas. The new buildings would not contain large glass walls, highly reflective glass, or polished surfaces that would create glare.

Implementation of the County approved photometric plan and design guidelines would ensure lighting would be appropriate for the project site and would not result in unwanted glare or illumination of adjoining properties. Accordingly, light and glare impacts resulting from the DDRC would be less than significant.

Material Recovery Facility Access

Light and glare would originate from vehicles utilizing the realigned MRF access road. However, the location of the proposed access road is already well lit by light emanating from the MRF facilities. Accordingly, new light and glare resulting from the proposed access road would not be substantial and impacts associated with light and glare would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

4.2 - Air Quality

4.2.1 - Introduction

This section describes the existing air quality setting and potential effects from project implementation on the site and its surrounding area. Michael Brandman Associates (MBA) performed air quality analysis for the Proposed Project, which included construction and operational air quality modeling, a Health Risk Assessment, an Odor Impact Analysis, and greenhouse gas emissions modeling. URBEMIS 2007 Version 9.2 was used to quantify project-related emissions. The air quality analysis, including model output, is provided in Appendix C, Air Quality Data.

4.2.2 - Environmental Setting

The Proposed Project is located within unincorporated El Dorado County, California, in the Mountain Counties Air Basin (MCAB). The MCAB comprises Plumas, Sierra, Nevada, Placer (middle portion), El Dorado (western portion), Amador, Calaveras, Tuolumne, and Mariposa counties. The MCAB lies along the northern Sierra Nevada mountain range, close to or contiguous with the Nevada border, and covers an area of roughly 11,000 square miles. The western slope of El Dorado County, from Lake Tahoe on the east to the Sacramento County boundary on the west, lies within the MCAB. Elevations range from over 10,000 feet at the Sierra crest down to several hundred feet above sea level at the Sacramento County boundary. Throughout the County, the topography varies widely: it includes rugged mountain peaks and valleys with extreme slopes and differences in altitude in the Sierras, as well as rolling foothills to the west.

Regional Climate

The general climate of the MCAB varies considerably with elevation and proximity to the Sierra Nevada ridge. The terrain features of the MCAB make it possible for various climates to exist relatively close to each other. The pattern of mountains and hills causes a wide variation in rainfall, temperature, and localized winds throughout the MCAB. Temperature variations have an important influence on MCAB wind flow, dispersion along mountain ridges, vertical mixing, and photochemistry. The Sierra Nevada receives large amounts of precipitation from storms moving in from the Pacific in the winter, with lighter amounts from intermittent “Monsoonal” moisture flows from the south and cumulus buildup in the summer. Precipitation levels are high in the highest mountain elevations but decline rapidly toward the western portion of the MCAB. Winter temperatures in the mountains can be below freezing for weeks at a time, and substantial depths of snow can accumulate, but in the western foothills, winter temperatures usually dip below freezing only at night and precipitation is mixed as rain or light snow. In the summer, temperatures in the mountains are mild, with daytime peaks from 70 to low 80 degrees Fahrenheit (°F); however, the western portion of El Dorado County can routinely experience temperatures exceeding 100°F.

From an air quality perspective, the topography and meteorology of the MCAB combine such that local conditions predominate in determining the effect of emissions in each area. Regional airflows

are affected by the mountains and hills, which direct surface airflows, cause shallow vertical mixing, and create areas of high pollutant concentrations by hindering dispersion. Inversion layers, where warm air overlays cooler air, frequently occur and trap pollutants close to the ground. In the winter, these conditions can lead to CO “hot spots” along heavily traveled roads and at busy intersections. During summer’s longer daylight hours, stagnant air, high temperatures, and plentiful sunshine provide the conditions and energy for the photochemical reaction between reactive organic gases (ROG) and oxides of nitrogen (NO_x), which results in the formation of ozone (O₃).

In the summer, the strong upwind valley air flowing into the MCAB from the Central Valley to the west is an effective transport medium for ozone precursors and ozone generated in the San Francisco Bay Area and the Sacramento and San Joaquin valleys. These transported pollutants predominate as the cause of ozone in the MCAB and are largely responsible for the exceedance of the state and federal standards in the MCAB. The California Air Resources Board (ARB) has officially designated the MCAB as “ozone impacted” by transport from those areas (13 CCR Section 70500).

Regional Air Quality

ARB publishes emissions inventory data for air districts and counties. Table 4.2-1 provides a summary of emissions for the MCAB portion of El Dorado County.

Table 4.2-1: Emissions Inventory for MCAB Portion of El Dorado County

Emission Category	2008 Emissions (tons per day)			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Stationary Sources	0.8	0.2	0.5	0.3
Areawide Sources	3.8	0.5	17.1	5.6
Mobile Sources	7.7	5.4	0.3	0.3
Natural Sources	49.6	0.2	0.5	0.4
Total El Dorado in MCAB	61.8	6.3	18.4	6.6
Source: ARB, 2010a.				

ROG. Natural sources contributed approximately 80 percent of the 2008 ROG emissions, with biogenic (plant-generated) emissions constituting the majority of natural source missions. Mobile sources accounted for approximately 12 percent of the 2008 emissions inventory.

NO_x. Mobile sources generated the majority of NO_x emissions in the MCAB portion of El Dorado County at approximately 85 percent of the total NO_x inventory.

PM₁₀. For inhalable particulate matter (PM₁₀), areawide sources contributed more than 90 percent of the 2008 inventory. The main PM₁₀-generating areawide sources include unpaved road dust, residential fuel combustion, and paved road dust.

PM_{2.5}. For inhalable particulate matter (PM_{2.5}), areawide sources contributed approximately 85 percent of the 2008 inventory. The main PM_{2.5}-generating areawide sources include unpaved road dust and residential fuel combustion.

Local Air Quality

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the project area. ARB operates two ambient air monitoring stations within the MCAB portion of El Dorado County. The nearest monitoring site is in Placerville, approximately 1.5 miles northeast of the Proposed Project. The monitoring site measures ozone and PM₁₀. The ambient air monitoring stations in El Dorado County do not measure PM_{2.5}, CO, sulfur dioxide, or NO₂. Table 4.2-2 summarizes the latest published monitoring data for each pollutant of concern monitored. The data show that the ozone is an air quality problem in the area, as all years experienced a violation of the state 1-hour and the federal 8-hour ozone standards.

Table 4.2-2: Local Air Quality Monitoring Summary

Air Pollutant	Measurement (Units)	2007	2008	2009
Ozone	Max 1 Hour (ppm)	0.115	0.139	0.113
	Days > CAAQS (0.09 ppm)	4	16	6
	Max 8 Hour (ppm) ¹	0.107	0.118	0.095
	Days > CAAQS (0.07 ppm)	20	52	32
	Days > NAAQS (0.075 ppm)	9	36	20
Particulate matter (PM ₁₀)	State Annual Average (µg/m ³)	13.5	15.7	*
	Max 24 Hour (µg/m ³) ¹	36.0	51.4	14.8
	Estimated Days > CAAQS (50 µg/m ³)	0.0	6.1	*
	Estimated Days > NAAQS (150 µg/m ³)	0.0	0.0	*
Abbreviations: > = exceed ppm = parts per million µg/m ³ = micrograms per cubic meter * = insufficient/no data max = maximum CAAQS = California Ambient Air Quality Standard NAAQS = National Ambient Air Quality Standard Mean = ¹ From the California measurement Sources: ARB 2010b.				

Local Source of Air Pollution

Nearby sources of air pollution include vehicles emissions at Missouri Flat Road and the U.S. 50 (US-50) Interchange, Pleasant Valley Road (State Route 49 [SR-49]), Diamond Road (SR-49), and the operations at the Western El Dorado County Material Recovery Facility (MRF).

The project site is located in a predominantly industrial and commercial setting and, with the exception of the MRF, the existing sources of air pollution are mainly mobile sources traveling along

the nearby regional roadways located near the project site. The MRF is a potential source of odorous compounds.

Sensitive Receptors

The potential for adverse air quality impacts increases as the distance between the source of emissions and members of the public decreases. The County of El Dorado Air Quality Management District's (AQMD's) Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts (Guide) states that while impacts on all members of the population should be considered, impacts on sensitive receptors are of particular concern (EDAQMD 2002). Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, and convalescent facilities are examples of sensitive receptors.

Impacts to sensitive receptors may occur when a source of air pollution is located near sensitive receptors, either by creation of a new source of air pollution, or by locating sensitive receptors near existing sources. Adverse health impacts may result as a function of multiple factors, including sensitive receptor proximity to the pollution source, duration of exposure, type of pollutant, and amount of pollutant emitted. As stated in ARB's Air Quality and Land Use Handbook (described further in the Regulatory Setting), attention to project siting (i.e., distance between pollution source and sensitive receptors) is an important preventative action. Generally, increased distance between receptors and pollution sources reduces the potential for health impacts. Therefore, the closest sensitive receptors would be the location of greatest impact.

The nearest sensitive receptors include existing residential units immediately south and adjacent to the project site.

Attainment Status

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

The MCAB portion of El Dorado County lies within the area designated by the EPA as the Sacramento Federal Ozone Nonattainment Area (SFONA), comprising Sacramento and Yolo counties and parts of El Dorado, Solano, Placer, and Sutter counties. In response to the complex factors that contribute to the regional ozone problem, the air districts that govern in the region jointly developed and approved a plan for achieving attainment as shown in Table 4.2-3 and discussed below.

Table 4.2-3: El Dorado County Attainment Status

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified ¹
Sulfur Dioxide	Attainment	Attainment
PM ₁₀ (2006 standard)	Nonattainment	Unclassified
PM _{2.5}	Unclassified	Nonattainment
Source: ARB 2010c.		

Climate Change

Climate change is a change in the average weather of the earth that may be measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use these data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. The Intergovernmental Panel on Climate Change predicted that global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1 degrees Celsius (°C) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC 2007).

In California, climate change may result in consequences such as the following.

- **A reduction in the quality and supply of water to the State from the Sierra snowpack.** If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.
- **Increased risk of large wildfires.** If rain increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of southern California are expected to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant “fuel” available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.

- **Reductions in the quality and quantity of certain agricultural products.** The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- **Exacerbation of air quality problems.** If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range.
- **A rise in sea levels resulting in the displacement of coastal businesses and residences.** During the past century, sea levels along California's coast have risen about seven inches. If heat-trapping emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.
- **Damage to marine ecosystems and the natural environment.**
- **An increase in infections, disease, asthma, and other health-related problems.**
- **A decrease in the health and productivity of California's forests** (CCCC 2006 and Moser et al. 2009).

Gases that trap heat in the atmosphere are referred to as greenhouse gases. The effect is analogous to the way a greenhouse retains heat. Common greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit greenhouse gases. The presence of greenhouse gases in the atmosphere affects the earth's temperature. Without the natural heat-trapping effect of greenhouse gas, the earth's surface would be about 34°C cooler (CAT 2006). However, it is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Pollutants of Concern

The criteria pollutants of greatest concern for the MCAB are ozone and particulate matter (PM₁₀ and PM_{2.5}). Although the area is in attainment of the CO standards, there is a potential for CO hot spots on congested roadways and at congested intersections. Other pollutants of concern are toxic air contaminants (TACs) and greenhouse gases. The Proposed Project is not expected to produce air emissions containing hydrogen sulfide, sulfates, lead, and vinyl chloride; therefore, these pollutants will not be discussed.

Ozone

Ozone is not emitted directly into the air but is formed by a photochemical reaction between the ozone precursors ROG and NO_x, and sunlight. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, ozone is primarily a summer air pollution problem. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind.

As a photochemical pollutant, ozone is formed only during daylight hours under appropriate conditions, but it is destroyed throughout the day and night. Thus, ozone concentrations vary, depending upon both the time of day and the location. Even in pristine areas, some ambient ozone forms from natural emissions that are not controllable. This is termed background ozone.

Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Health effects of ozone can include the following: respiratory system irritation, reduction of lung capacity, asthma aggravation, inflammation, and damage to lung cells, aggravated cardiovascular disease, and permanent lung damage. The greatest health risk is to those who are more active outdoors during smoggy periods, such as children, athletes, and outdoor workers. Ozone also damages natural ecosystems such as forests and foothill communities, and damages agricultural crops and some anthropogenic (human) materials such as rubber, paint, and plastics.

Particulate Matter (PM₁₀ and PM_{2.5})

PM is the term for a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small they can only be detected using an electron microscope. Particle pollution includes “inhalable coarse particles,” with diameters larger than 2.5 micrometers and smaller than 10 micrometers and “fine particles,” with diameters that are 2.5 micrometers and smaller. These particles come in many sizes and shapes and can be made up of hundreds of different chemicals.

Particle exposure can lead to a variety of health effects. For example, numerous studies link particle levels to increased hospital admissions and emergency room visits—and even to death from heart or lung diseases. Both long- and short-term particle exposures have been linked to health problems. Long-term exposures, such as those experienced by people living for many years in areas with high particle levels, have been associated with problems such as reduced lung function and the development of chronic bronchitis, and even premature death. Short-term exposures to particles (hours or days) can aggravate lung disease, causing asthma attacks and acute bronchitis, and may increase susceptibility to respiratory infections. In people with heart disease, short-term exposures have been linked to heart attacks and arrhythmias. Healthy children and adults have not been reported to suffer serious effects from short-term exposures, although they may experience temporary minor irritation when particle levels are elevated.

Carbon Monoxide

CO is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes about 56 percent of all CO emissions nationwide. Higher levels of CO generally occur in areas with heavy traffic congestion.

CO is a public health concern because it combines readily with hemoglobin, reducing the amount of oxygen transported in the bloodstream. High levels of CO can affect even healthy people. At extremely high levels, CO is poisonous and can cause death.

Motor vehicles are the dominant source of CO emissions in most areas. CO is described as having only a local influence because it dissipates quickly. High CO levels develop primarily during winter, when periods of light winds combine with the formation of ground-level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Because CO is a product of incomplete combustion, motor vehicles exhibit increased CO emission rates at low air temperatures. High CO concentrations occur in areas of limited geographic size, sometimes referred to as hot spots.

Toxic Air Contaminants

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at very low concentrations. In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts are not expected to occur. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined and for which the state and federal governments have set ambient air quality standards.

According to the California Almanac of Emissions and Air Quality, the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines (DPM). Another TAC of concern in El Dorado County is asbestos since there is a known potential for naturally occurring asbestos. Finally, the proposed gasoline station would be a source of benzene, which is also identified by the ARB as a TAC.

Diesel Particulate Matter

The ARB identified the PM emissions from diesel-fueled engines as a TAC in August 1998 under California's TAC program. The State of California, after a 10-year research program, determined in 1998 that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic (long-term) health risk. The California Office of Environmental Health Hazard Assessment (OEHHA) recommends using a 70-year exposure duration for determining residential cancer risks. Diesel PM is emitted from both mobile and stationary sources. In California, on-road diesel-fueled vehicles contribute approximately 40 percent of the

statewide total, with an additional 57 percent attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units.

Asbestos

Asbestos is listed as a TAC by ARB and as a Hazardous Air Pollutant (HAP) by the EPA. Asbestos is of special concern in El Dorado County because it occurs naturally in surface deposits of several types of rock formations. Crushing or breaking these rocks, through construction or other means, can release asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining (EDAQMD 2002). The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma.

Benzene

Benzene is an ROG. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a “Group A” carcinogen.

Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, loss of consciousness can occur. Long-term (chronic) occupational exposure of high doses has caused blood disorders, leukemia, and lymphatic cancer.

Benzene is emitted into the air from gasoline service stations (fuel evaporation), motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is used as a solvent for paints, inks, oils, waxes, plastic, and rubber. It is used in the extraction of oils from seeds and nuts and in the manufacture of detergents, explosives, and pharmaceuticals.

Greenhouse Gases

Individual greenhouse gas compounds have varying global warming potentials and atmospheric lifetimes. Global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere, and is based on the reference gas carbon dioxide. Carbon dioxide has a global warming potential of 1. Methane’s global warming potential of 21 indicates that methane has a 21 times greater warming affect than carbon dioxide on a molecule per molecule basis.

Global warming potential is used to calculate the carbon dioxide equivalent of a greenhouse gas. Using carbon dioxide equivalents creates a consistent methodology for comparing greenhouse gas emissions since it normalizes various greenhouse gas emissions to a consistent metric. A carbon dioxide equivalent is the mass emissions (tons) of an individual greenhouse gas multiplied by its global warming potential. Table 4.2-4 lists common greenhouse gases.

Table 4.2-4: Common Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide is also known as laughing gas and is a colorless greenhouse gas. It has a lifetime of 114 years. Its global warming potential is 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Methane	Methane (CH ₄) is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, decay of organic matter, and cattle.
Carbon dioxide	Carbon dioxide (CO ₂) is an odorless, colorless, natural greenhouse gas. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960. Carbon dioxide from fossil fuels contributed 81% of greenhouse gas emissions in 2004 in California.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chlorofluorocarbons	These are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987.
Hydrofluorocarbons	Hydrofluorocarbons are a group of greenhouse gases containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons	Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.
Sources: Compiled from a variety of sources, including EPA 2006 and IPCC 2007.		

Greenhouse gases not defined by Assembly Bill (AB) 32 include water vapor, ozone, and aerosols. Water vapor is an important component of our climate system and is not regulated. Ozone and

aerosols are short-lived greenhouse gases; global warming potentials for short-lived greenhouse gases are not defined by the IPCC. Aerosols can remain suspended in the atmosphere for about a week and can warm the atmosphere by absorbing heat and cool the atmosphere by reflecting light. Black carbon is a type of aerosol that can also cause warming from deposition on snow.

There are no adverse health effects from the concentration of greenhouse gases in the atmosphere at the current levels, with the exception of ozone and aerosols (EPA 2003). Health effects of ozone are discussed above. Health effects of particulate matter (aerosols) are also discussed above.

4.2.3 - Regulatory Framework

Air pollutants are regulated at the national, state, and air basin level; each agency has a different degree of control. The EPA regulates at the national level. The ARB regulates at the state level. The El Dorado AQMD regulates at the air basin level, maintaining ambient air monitoring sites and regulating stationary and indirect sources.

Federal and State Regulatory Agencies

The EPA handles global, international, national, and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Ambient Air Quality Standards, also known as federal standards. There are national standards for six common air pollutants, called criteria air pollutants, which were identified from provisions of the Clean Air Act of 1970. The criteria pollutants are:

- Ozone
- Particulate matter (PM₁₀ and PM_{2.5})
- Nitrogen dioxide
- Carbon monoxide (CO)
- Lead
- Sulfur dioxide

The national standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. Primary national standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health (ARB 2010d).

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain national standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. The ARB also administers California Ambient Air Quality Standards for the 10 air pollutants designated in the

California Clean Air Act. The 10 state air pollutants are the six national standards listed above as well as the following: visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride.

The national and state ambient air quality standards are summarized in Table 4.2-5.

Table 4.2-5: Ambient Air Quality Standards

Air Pollutant	Averaging Time	California Standard	National Standard
Ozone	1-hour	0.09 ppm	—
	8-hour	0.070 ppm	0.075 ppm
Particulate matter (PM ₁₀)	24-hour	50 µg/m ³	150 µg/m ³
	Mean	20 µg/m ³	—
Particulate matter (PM _{2.5})	24-hour	—	35 µg/m ³
	Mean	12 µg/m ³	15.0 µg/m ³
Carbon monoxide (CO)	1-hour	20 ppm	35 ppm
	8-hour	9.0 ppm	9 ppm
Nitrogen dioxide (NO ₂)	1-hour	0.18 ppm	0.100 ppm
	Mean	0.030 ppm	0.053 ppm
Sulfur dioxide (SO ₂)	1-hour	0.25 ppm	75 ppb
	24-hour	0.04 ppm	0.14 ppm
	Mean	—	0.030 ppm
Lead	30-day	1.5 µg/m ³	—
	Quarter	—	1.5 µg/m ³
	Rolling 3-month average	—	0.15 µg/m ³
Sulfates	24-hour	25 µg/m ³	—
Hydrogen sulfide	1-hour	0.03 ppm	—
Vinyl chloride ¹	24-hour	0.01 ppm	—
Notes: 1. The ARB has identified vinyl chloride as TAC with no threshold level of exposure for adverse health effects. Therefore, the vinyl chloride the standard is not a threshold but is the minimum detectable limit. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants. Abbreviations: ppm = parts per million (concentration) µg/m ³ = micrograms per cubic meter ppb = parts per billion Mean = Annual Arithmetic Mean 30-day = 30-day average Quarter = Calendar year quarter Source: ARB, 2010d.			

Toxic Air Contaminants Regulations

The California legislature enacted the Toxic Air Contaminant Identification and Control Act (AB 1807; Tanner 1983) governing the release of TACs into the air. This law charges the ARB with the responsibility for identifying substances as TACs, setting priorities for control, adopting control

strategies, and promoting alternative processes. The ARB has designated almost 200 compounds as TACs. AB 2588, the Air Toxics “Hot Spots” Program, was enacted in 1987, and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics “Hot Spots” Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels. Additionally, the ARB has implemented control strategies, called Airborne Toxic Control Measures, for a number of compounds that pose high health risk and show potential for effective control, including DPM and asbestos. ARB also prepares the California Toxics Inventory, and provides Risk Management Guidelines for new and modified sources of TACs. Detailed information can be found at the ARB’s Air Toxics Program webpage at <http://www.arb.ca.gov/toxics/toxics.htm>.

ARB’s Land Use Handbook

The ARB adopted the Air Quality and Land Use Handbook: A Community Health Perspective (Land Use Handbook) in 2005. The Land Use Handbook provides information and guidance on siting sensitive receptors in relation to sources of TACs. The sources of TACs identified in the Land Use Handbook are high-traffic freeways and roads, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and large gas-dispensing facilities. If the project involves siting a sensitive receptor or source of TAC discussed in the Land Use Handbook, siting mitigation may be added to avoid potential land use conflicts, thereby reducing the potential for health impacts to the sensitive receptors (ARB 2005).

El Dorado County Air Quality Management District

The air pollution control agency for the whole of El Dorado County is the El Dorado AQMD. The El Dorado AQMD is the local agency with primary responsibility for compliance with both the federal and state standards and for ensuring that air quality conditions are maintained. The El Dorado AQMD accomplishes its responsibility through a comprehensive program of planning, regulation, enforcement, and promotion of air quality issues.

The clean air strategy of the El Dorado AQMD includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the federal Clean Air Act and the California Clean Air Act.

The El Dorado AQMD has adopted rules and regulations as a means of implementing the air quality plan for El Dorado County. The El Dorado AQMD has also prepared the Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts (Guide) under the California Environmental Quality Act, which provides quantitative emission thresholds and established protocols for the analysis of air quality impacts from projects and plans. The Guide outlines

quantitative and qualitative significance criteria, methodologies for the estimation of construction and operational emissions and mitigation measures to reduce significant impacts.

Current Air Quality Plans

The following discusses federal and State attainment plans applicable to the Proposed Project.

Federal Air Quality Attainment Plan

The federal attainment plan for the Sacramento Region is the 1994 Sacramento Area Regional Ozone Attainment Plan, also called the Sacramento Regional Clean Air Plan. The Clean Air Plan was adopted in 1994 in compliance with the 1990 Amendments to the Federal Clean Air Act. At that time, the Sacramento region could not show that it would meet the federal 1-hour ozone standard by 1999. In exchange for moving the deadline to 2005, the region accepted a designation of “severe nonattainment” for the federal 1-hour ozone standard, with additional emission requirements on stationary sources.

As a “severe nonattainment” area, the Sacramento Region is required to submit a rate-of-progress milestone evaluations pursuant to Section 182(g) of the Federal Clean Air Act. The Sacramento Regional 1999 Milestone Report was developed and included a compliance demonstration that the milestone requirements were met. The 2002 Milestone Report also includes a compliance demonstration that the 2002 milestone requirement has been met for the Sacramento nonattainment area.

The Sacramento region has been designated as a “serious” nonattainment area for the federal 8-hour ozone standard with an attainment deadline of June 2013. The Sacramento region air districts adopted the 8-Hour Ozone Attainment and Reasonable Further Progress Plan in early 2009. This plan includes the information and analyses to fulfill the federal Clean Air Act requirements for demonstrating reasonable further progress and attainment of the 1997 8-hour ozone standard for the Sacramento region. In addition, the plan establishes an updated emissions inventory, provides photochemical modeling results, proposes the implementation of reasonably available control measures, and sets new motor vehicle emission budgets for transportation conformity purposes.

On October 16, 2006, the EPA promulgated a new 24-hour standard for PM_{2.5}. This change lowered the daily standard from 65 micrograms per cubic meter (µg/m³) to 35 µg/m³ to protect the public from short-term exposure of the fine particulate matter. As shown in Table 4.2-3, the project area does not meet the new standards. If designated nonattainment, an attainment plan must be submitted not later than 3 years after the effective date of the designation (EPA estimates this to be April 2012). The plan must include transportation conformity budgets and control measures.

State Air Quality Attainment Plans

The California Clean Air Act does not contain planning requirements for areas in nonattainment of the state PM₁₀ standards, but air districts must demonstrate to the ARB that all feasible measures for their district have been adopted.

The California Clean Air Act requires air districts that are nonattainment of the state ozone standards to adopt air quality attainment plans and to review and revise their plans to address deficiencies in interim measures of progress once every 3 years.

Rules Applicable to the Project

As discussed above, the El Dorado AQMD establishes a program of rules and regulations in El Dorado County to obtain attainment of the national air quality standards. The rules and regulations that apply to this Project include but are not limited to the following:

- El Dorado AQMD Rule 224 governs the sale and use of asphalt and limits the ROG content in asphalt.
- El Dorado AQMD Rule 223-1 governs the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions and applies to any construction or construction related activities, including but not limited to land clearing, grubbing, scraping, travel onsite, and travel on access roads. This rule also applies to all sites where carryout or trackout has occurred or may occur on paved public roads or the paved shoulders of a paved public road.
- El Dorado AQMD Rule 223-2 may potentially apply if any portion of the area to be disturbed is located in a geographic ultramafic rock unit or if naturally occurring asbestos is discovered during construction. This rule reduces the amount of asbestos entrained into the air as a result of construction or construction-related activities.
- El Dorado AQMD Rule 300 applies to open burning. The burning of unsalable wood waste from trees, vines, and bushes on property being developed for commercial or residential purposes is allowed to burn as long as there is compliance with provisions in the rule regarding minimum drying time, no-burn days, smoke management, and obtain a burning permit.

Local Government

El Dorado County General Plan

El Dorado County is the local government with jurisdiction over the project area. The goals, policies, and implementation programs from the County's 2004 General Plan are considered in this analysis. The General Plan is intended to guide land use and development decisions in order to achieve the County's vision for the future. Table 4.2-6 contains El Dorado County's General Plan's policies to reduce cumulative air impacts, air quality plan conflicts, exposure of sensitive receptors to pollutants,

and exposure to odors. Additional General Plan policies related to water conservation and biological resource conservation that reduce air quality impacts are also included in Table 4.2-6. Water conservation affects air quality through the reduction in air pollutant emissions generated by the transport and treatment of water, and reduces offsite energy consumption.

As part of the Proposed Project, a proposed General Plan Amendment and rezone would designate the site for commercial uses. As such, the Project would be required to comply with the following General Plan policies pertaining to the new Commercial designation:

Table 4.2-6: Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
Policy 2.2.5.2.1: Requires development projects to be designed and located in a manner that avoids adjacent incompatible land uses.	Consistent: The Proposed Project would include the construction of a new source of toxic air contaminants. However, the air quality analysis shows that the Project would not expose sensitive receptors to significant levels of air pollutants and or significant health risks from exposure to toxic air contaminants.
Policy 6.3.1.1: The County shall require that all discretionary projects and all projects requiring a grading permit, or a building permit that would result in earth disturbance, that are located in areas likely to contain naturally occurring asbestos (based on mapping developed by the California Department of Conservation [DOC]) have a California-registered geologist knowledgeable about asbestos-containing formations inspect the project area for the presence of asbestos using appropriate test methods. The County shall amend the Erosion and Sediment Control Ordinance to include a section that addresses the reduction of thresholds to an appropriate level for grading permits in areas likely to contain naturally occurring asbestos (based on mapping developed by the DOC). The Department of Transportation and the County Air Quality Management District shall consider the requirement of posting a warning sign at the work site in areas likely to contain naturally occurring asbestos based on the mapping developed by the DOC.	Consistent: The Proposed Project is not located within an area likely to contain naturally occurring asbestos.
Policy 6.7.7.1: The County shall consider air quality when planning the land uses and transportation systems to accommodate expected growth, and shall use the recommendations in the most recent version of the County of El Dorado Air Quality Management District's (AQMD) Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts Under the California Environmental Quality Act, to analyze potential air quality impacts (e.g.,	Consistent: The Proposed Project's design features include energy efficiency measures, and mitigation applied in this DEIR includes additional energy efficiency requirements. In addition, the Project would be served by the bus stops located at the future Diamond Springs Parkway and Throwita Way intersection. The air quality impact in this Draft EIR utilizes the most current El Dorado AQMD guidance and applies feasible mitigation requirements for impacts identified as potentially significant.

Table 4.2-6 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
short-term construction, long-term operations, toxic and odor-related emissions) and to require feasible mitigation requirements for such impacts. The County shall also consider any new information or technology that becomes available prior to periodic updates of the Guide. The County shall encourage actions (e.g., use of light-colored roofs and retention of trees) to help mitigate heat island effects on air quality.	
Policy 6.7.6.2: Requires new projects with sensitive receptors to be sited away from significant sources of air pollution	Consistent: The Proposed Project, although not traditionally considered a sensitive receptor, would not be exposed to significant odor impacts from the nearby Material Recovery Facility.
Policy 7.3.1.2: Establishes water conservation programs that include drought tolerant landscaping, efficient building design requirements, and incentives for the conservation and wise use of water.	Consistent: The Proposed Project would provide a landscape plan to the County that incorporates drought-tolerance and water reduction measures with implementation of MM PSU- 3a.
Policy TC-5b In commercial and research and development subdivisions, curbs and sidewalks shall be required on all roads. Sidewalks in industrial subdivisions may be required as appropriate.	Consistent: The Proposed Project would construct sidewalks and curbs along adjacent roadways.
Policy TC 2f: The County shall work with the El Dorado Transit Authority and support the provision of paratransit services and facilities for elderly and disabled residents, and those of limited means, which shall include bus shelters, bus stops, and ramps at stops.	Consistent: The Proposed Project would be served by the bus stops located at the future Diamond Springs Parkway and Throwita Way intersection.
Policy TC-4a: The County shall implement a system of recreational, commuter, and inter-community bicycle routes in accordance with the County's Bikeway Master Plan. The Plan should designate bikeways connecting residential areas to retail, entertainment, and employment centers and near major traffic generators such as recreational areas, parks of regional significance, schools, and other major public facilities, and along recreational routes.	Consistent: The Proposed Project would provide non-vehicular facilities within the site that would connect with offsite pedestrian and bicycle facilities.
Policy TC 4h: Where hiking and equestrian trails abut public roads, they should be separated from the travel lanes whenever possible by curbs and barriers (such as fences or rails), landscape buffering, and spatial distance. Existing public corridors such as power transmission line easements, railroad rights-of-way, irrigation district easements, and roads should be put to multiple use for trails, where possible.	Consistent: The Proposed Project would provide non-vehicular facilities within the site and along the project site's frontages that would connect with offsite pedestrian and bicycle trails including the El Dorado Multi Use Trail.
Source: El Dorado County General Plan, 2004; MBA, 2010.	

Climate Change

Federal

A significant effort has been made by the federal government to address greenhouse gases and their effects on climate change; these developments are discussed as follows.

Massachusetts v. EPA (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which twelve states and several cities of the United States brought suit against EPA to compel the agency utilize its authority to regulate four greenhouse gases, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. The Supreme Court rendered a decision on April 2, 2007, in which the Court held that not only did the petitioners have standing to challenge the EPA's inaction concerning the regulation of greenhouse gases, but the EPA has statutory authority to regulate greenhouse gases emissions from new motor vehicles.

The Consolidated Appropriations Act of 2008 (HR 2764), passed in December 2007, requires the establishment of mandatory greenhouse gas reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule, satisfying Consolidated Appropriations Act of 2008 requirements. The rule requires large sources and suppliers in the United States to report greenhouse gas emissions and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of greenhouse gas emissions are required to submit annual reports to EPA.

In December 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under Section 202(a) of the Clean Air Act: 1) Current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations. 2) The combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare. On December 15, 2009, the final findings were published in the Federal Register, and the final rule became effective January 14, 2010.

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light trucks thereby reducing energy consumption. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. In response to this new policy, on April 1, 2010, EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States. The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The joint final rule requires these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per

mile; equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). The EPA and the National Highway Safety Administration is in the process of working on a second-phase of joint rulemaking to establish national standards for light-duty vehicles for model years 2017 and beyond.

California

There have been significant legislative and regulatory activities affecting climate change and greenhouse gases in California, as discussed below.

Title 24. California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. Reduced energy consumption, by way of electricity and natural gas efficiencies, results in fewer greenhouse gas emissions from onsite and offsite combustion of fossil fuels. Although not originally intended to reduce greenhouse gases, the standards are updated periodically to allow for consideration and possible incorporation of new energy efficient technologies and methods. The 2008 standards became effective January 1, 2010. Adherence to the 2008 standards is dependent on when the application for the building permit is submitted. .

California Green Building Standards. On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which go into effect on January 1, 2011. The Code is a comprehensive and uniform regulatory code for all residential, commercial, and K-14 school buildings.

Both the California Green Building Standards Code and state law permit local jurisdictions to adopt more stringent building standards for local-level enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to these ordinances as the ruling guidance so long as they provide a minimum 50 percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard that buildings must comply with in order to be certified for occupancy. The local building official generally enforces building standards.

When effective, the California Green Building Standards Code requires:

- A minimum 50-percent diversion of construction and demolition waste from landfills, increasing voluntarily to 65 and-75 percent for new homes and 80-percent for commercial projects;

- 20-percent mandatory reduction in indoor water use with voluntary goal standards for 30, 35 and 40-percent reductions;
- Separate water meters for buildings in excess of 50,000 square feet or buildings projected to consume more than 1,000 gallons per day;
- Moisture-sensing irrigation systems for larger landscaped areas;
- Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring and particle board;
- Mandatory inspections of energy systems (i.e. heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies.

California Health and Safety Code Chapter 200, Section 43018.5. California AB 1493 (Pavley), enacted on July 22, 2002, and chaptered in the California Health and Safety Code, required the ARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. ARB regulation was stalled by automaker lawsuits and by the EPA's denial of an implementation waiver. On January 21, 2009, the ARB requested that EPA reconsider its previous waiver denial. On January 26, 2009, President Obama directed that EPA assess whether the denial of the waiver was appropriate. On June 30, 2009, EPA granted the waiver request, which begins with motor vehicles in the 2009 model year.

The standards phase in during the 2009 through 2016 model years. When fully phased in, the near term (2009-2012) standards will result in about a 22-percent reduction compared with the 2002 fleet, and the mid-term (2013-2016) standards will result in about a 30-percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

Executive Order S-3-05. Through Executive Order S-3-05, on June 1, 2005 California Governor Arnold Schwarzenegger announced the following reduction targets for greenhouse gas emissions:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels (CA 2005).

The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established as an aggressive, but achievable, mid-term target. To meet these targets, the Governor directed the Secretary of the California EPA to lead a

Climate Action Team made up of representatives from the Business, Transportation, and Housing Agency; the Department of Food and Agriculture; the Resources Agency; the Air Resources Board; the Energy Commission; and the Public Utilities Commission. The Climate Action Team's Report to the Governor in 2006 contains recommendations and strategies to help ensure the targets in Executive Order S-3-05 are met.

AB 32. The California State Legislature enacted the California Global Warming Solutions Act of 2006 (AB 32). AB 32 requires that greenhouse gases emitted in the State of California be reduced to 1990 levels by the year 2020. "Greenhouse gases" as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the State agency charged with the duty of monitoring and regulating sources of greenhouse gases. AB 32 provides:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The ARB approved the 1990 greenhouse gas emissions level of 427 million metric tons of carbon dioxide equivalent (MMTCO₂e) on December 6, 2007 (ARB 2007a). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO₂e. Emissions in 2020 in a "business as usual" scenario are estimated to be 596 MMTCO₂e.

Under AB 32, the ARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California (ARB 2007b). Discrete early action measures are currently underway or are enforceable by January 1, 2010. Early action measures are regulatory or non-regulatory and are to be implemented by the ARB within the 2007 to 2012 timeframe. The ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are considered discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The ARB estimates that the 44 recommendations are to result in reductions of at least 42 MMTCO₂e by 2020, representing approximately 25 percent of the 2020 target.

The ARB approved the Climate Change Scoping Plan in December 2008. The Scoping Plan contains measures designed to reduce the State's emissions to 1990 levels by the year 2020. The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different

emission reduction target. The measures in the Scoping Plan will be in place by 2012. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 greenhouse gas target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent.
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system.
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets.
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard.
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. Capped strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and-trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional greenhouse gas emission reductions.

SB 97. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states:

- (a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a).

Section 21097 was also added to the Public Resources Code. It provides California Environmental Quality Act (CEQA) protection for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to adequately analyze the effects of greenhouse gases would not violate CEQA. However, the CEQA protection section of SB 97 remains in effect only until January 1, 2010.

Low Carbon Fuel Standard - Executive Order S-01-07. Governor Schwarzenegger signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. It also requires that a Low Carbon Fuel Standard for transportation fuels be established for California.

In particular, the Executive Order established a Low-Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, the ARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by California Energy Commission on December 24, 2007) and was submitted to ARB for consideration as an "early action" item under AB 32. The ARB adopted the Low Carbon Fuel Standard on April 23, 2009.

SB 375. Following the Senate's passage of the bill on August 30, 2008, SB 375 was signed into law by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of greenhouse gas emissions, which emits over 40 percent of the total greenhouse gas emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of ASB 375." In order to address concerns regarding the transportation sector's contribution to greenhouse gases, SB 375: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing greenhouse gas emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies. Concerning CEQA, SB 375 Section 21159.28 states that CEQA determinations for certain projects are not required to reference, describe, or discuss: (1) growth inducing impacts or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network if the project:

1. Is in an area with an approved sustainable community strategy or an alternative planning strategy that the ARB accepts as achieving the greenhouse gas emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).

3. Incorporates the mitigation measures required by an applicable prior environmental document.

Local

Certain General Plan policies related to water conservation and biological resource conservation (Policy 7.3.1.2 and Policy 7.4.4.4, respectively) have related effects on air quality. Water conservation affects air quality through the reduction in air pollutant emissions generated by the transport and treatment of water, and reduces offsite energy consumption. Tree replacement and retention affects air quality through carbon sequestration. A Tree Benefit Estimator indicated that trees have varying carbon sequestration rates depending on age (SMUD 2007). A 1-year-old tree would sequester 0.003 ton of carbon dioxide per year, a 5-year-old tree would sequester 0.020 ton of carbon dioxide per year, and a mature tree would sequester 0.161 ton of carbon dioxide per year.

El Dorado County Resolution No. 29-2008

On March 25, 2008, the El Dorado County Board of Supervisors adopted the “Environmental Vision for El Dorado County” Resolution No. 29-2008, brought forward by the Youth Commission. The Resolution sets forth goals and calls for implementation of positive environmental changes to reduce global impact, improve air quality and reduce dependence on landfills, promote alternative energies, increase recycling, and encourage local governments to adopt green and sustainable practices.

4.2.4 - Methodology

This impact analysis was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The methodology follows the Guide to Air Quality Assessment - Determining Significance of Air Quality Impacts Under the California Environmental Quality Act (Guide), prepared by El Dorado AQMD to facilitate the evaluation and review of air quality impacts for projects under CEQA.

Specific tools and analysis methodologies are discussed in each impact below, as applicable.

4.2.5 - Thresholds of Significance

According to the CEQA Guidelines’ Appendix G Environmental Checklist, to determine whether impacts to air quality are significant environmental effects, the following questions are analyzed and evaluated. Where available, the significance criteria established by the El Dorado AQMD may be relied upon to make the following determinations.

Would the project:

- a.) Conflict with or obstruct implementation of the applicable air quality plan?
- b.) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

- c.) 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 (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?
- d.) Expose sensitive receptors to substantial pollutant concentrations?
- e.) Create objectionable odors affecting a substantial number of people?
- f.) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- g.) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

4.2.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate. Included are construction (short-term) and operational (long-term) impacts of onsite improvements, as well as construction impacts of offsite improvements.

Air Quality Plan Consistency

Impact AIR-1:	The Project would conflict with or obstruct implementation of the applicable air quality plan.
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Impact Analysis

El Dorado AQMD Significance Criteria

The CEQA Guidelines states that projects in the Mountain Counties Air Basin (MCAB) are less than significant for cumulative impacts, and therefore consistent with the Air Quality Attainment Plan (AQAP), if:

1. The project requires a change in the existing land use designation (i.e., general plan amendment or rezone), and projected emissions (ROG, NO_x, CO or PM₁₀) are not greater than the emissions anticipated for the site if developed under the existing land use designation;
2. The project does not exceed the “project alone” significance criteria;
3. The lead agency for the project requires the project to implement any applicable emission reduction measures contained in and/or derived from the AQAP; or
4. The project complies with all applicable El Dorado AQMD rules and regulations. (Rules and regulations applicable to the Project are provided above in Section 4.2.3, Regulatory Framework).

Onsite Improvements

As discussed in Section 4.2.3, Regulatory Framework, the applicable AQAPs for the project area are the 1994 Sacramento Regional Clean Air Plan and the 8-Hour Ozone Attainment and Reasonable Further Progress Plan.

The Proposed Project will require a land use designation change, from Industrial to General Commercial. The Traffic Impact Analysis prepared for the Project by Kimley-Horn and Associates estimates that development of the project site under the existing Industrial designation would generate just over 2,000 total daily trips, whereas the Proposed Project would generate approximately 8,000 trips more than would the Industrial land use (KHA 2010). An increase in daily trip generation results in more vehicle miles traveled (VMT), thereby generating more mobile vehicle emissions than anticipated for the site if developed under the existing land use designation. Therefore, the Project does not meet the first criterion of AQAP conformity.

As discussed in Impact AIR-3, the Project does exceed the El Dorado AQMD thresholds for short-term construction; however, project construction-generated emissions would be less than significant after implementation of Mitigation Measure AIR-3a. The Project exceeds the thresholds of significance for operational ozone precursors before and after incorporation of mitigation. Therefore, the Project would not meet the second criterion of AQAP conformity.

The AQAPs contain a number of land use and transportation control measures that include the El Dorado AQMD's Stationary and Mobile Source Control Measures and State Control Measures proposed by ARB. ARB's strategy for reducing mobile source emissions include the following approaches: adopt new engine standards, reduce emissions from in-use fleets, require clean fuels, support alternative fuels and reduce petroleum dependency, work with the EPA to reduce emissions from federal and state sources, and pursue long-term advanced technology measures. The Project will indirectly comply with the control measures set by ARB by increasing existing roadway efficiencies, which will reduce mobile source emissions. Additionally, as discussed earlier under El Dorado AQMD Rules Applicable to the Project, the Proposed Project will comply with all of the El Dorado AQMD's applicable rules and regulations, specifically, Rules 224, 223-1, 223-2, and 300. Therefore, the Proposed Project complies with the third and fourth criteria of AQAP conformity.

In summary, the Proposed Project does not meet two of the four criteria for AQAP conformity. Although, it would comply with applicable control measures in the AQAPs, and well as applicable El Dorado AQMD rules and regulations, the Proposed Project would not comply with the growth assumptions in the AQAP and would exceed the El Dorado AQMD's stand-alone thresholds.

As detailed in Impact AIR-3, incorporation of Mitigation Measures AIR-3a through AIR-3d would not reduce the Proposed Project's operational emissions to below the El Dorado AQMD's "project-alone" thresholds of significance for ROG and NO_x. Therefore, the Proposed Project's operational emissions would remain significant and unavoidable. After incorporation of mitigation, impacts

associated with the Proposed Project would remain significant and unavoidable for AQAP consistency.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measures AIR-3a through AIR-3d.

Level of Significance After Mitigation

Significant and unavoidable impact.

Offsite Improvements

The offsite improvements would not directly or indirectly attract or generate vehicular trips; the improvements are improvements to existing roads, intended only to improve traffic flow generated from existing and currently planned uses. The emissions, which would be generated by vehicles traveling on the offsite improvements, would not be greater than if the roadway improvements were not constructed because the land uses generating the vehicle trips are not being changed. Generally, less roadway congestion equates to fewer emissions of ozone precursors, CO and PM₁₀. Therefore, the roadway improvements would meet the first criterion of AQAP conformity.

Construction of the roadway improvements would not exceed the El Dorado AQMD's thresholds for short-term construction. Therefore, the Project would meet the second criterion of AQAP conformity.

The AQAP contains a number of land use and transportation control measures that include the El Dorado AQMD's Stationary and Mobile Source Control Measures and State Control Measures proposed by ARB. ARB's strategy for reducing mobile source emissions include the following approaches: adopt new engine standards, reduce emissions from in-use fleets, require clean fuels, support alternative fuels and reduce petroleum dependency, work with the EPA to reduce emissions from federal and state sources, and pursue long-term advanced technology measures. The stationary and mobile source control measures do not directly apply to the offsite improvements. Additionally, the offsite improvements are required to comply with applicable El Dorado AQMD rules and regulations. Specifically, the Project would comply with El Dorado AQMD's Rules 224, 223-1, 223-2, and 300. Therefore, the offsite improvements comply with the third and fourth criteria of AQAP conformity.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Localized Air Quality Standard Violation

Impact AIR-2: **The Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.**

Impact Analysis

This impact is related to localized criteria pollutant impacts. Potential localized impacts would be exceedances of state or federal standards for PM_{2.5}, PM₁₀, NO₂, or CO. The El Dorado AQMD provides thresholds of significance for construction and operational-generated PM₁₀, and operational CO, as violation of the respective ambient air quality standards (see Table 4.2-5). Construction-generated fugitive dust has the potential to cause a localized violation of the state and federal PM₁₀ or PM_{2.5} ambient air quality standards. Localized high levels of CO (CO hot spot) are associated with traffic congestion and idling or slow-moving vehicles, which is related to operation of the Project.

Onsite Improvements**Construction**

Short-term construction impacts associated with the Proposed Project would include fugitive dust and other particulate matter, as well as exhaust emissions generated by rough grading, soil hauling, excavation and site work. Short-term impacts would also include emissions generated during construction of structural facilities (structural forms, rebar and conduits), paving and striping, and the use of personal vehicles by construction workers.

The Guide states that mass emissions of fugitive dust need not be quantified and may be assumed to be less than significant, if a project includes mitigation measures that will prevent visible dust beyond the property line, as detailed in CEQA Guidelines Tables C.4 and C.5 (EDAQMD 2002). This recommendation was made prior to El Dorado AQMD's adoption of Rule 223-1 (Fugitive Dust), which limits the fugitive dust from construction and construction-related activities.

The Project is required to incorporate dust control measures in compliance with Rule 223-1 (see Section 4.2.3, above). Therefore, the Project would generate less than significant amounts of fugitive PM₁₀ and PM_{2.5} emissions.

Operation

A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour CO ambient air standards. As stated above, localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles.

El Dorado AQMD's methodology for estimating operational CO impacts uses the number of peak-hour trips a project will contribute and adds the potential CO concentration levels associated with those trips to the background CO concentration level to determine if there is a potential air quality

violation. According to the Traffic Impact Study, the Project would create up to 296 new AM peak-hour trips and 970 PM peak-hour trips. Table 4.2-7 contains the CO significance determination, utilizing the background concentrations provided in the El Dorado AQMD's Guide, and project-related CO concentration levels, as interpolated for the Project's additional peak-hour trip generation. As shown in Table 4.2-7, the Project would not generate or significantly contribute to a CO hot spot. As such, project traffic increases would not result in a violation of the CO ambient air quality standards and would not result in related health effects from CO exposure.

Table 4.2-7: Carbon Monoxide Localized Analysis

Description	CO Concentration (ppm)	
	1-Hour	8-Hour
Background Concentration ¹	1.32	0.924
Project-Related Pollutant Concentration ²	3.02	2.11
Anticipated Total Concentration	4.34	3.03
Ambient Air Quality Standard	20	9.0
Significance Determination	Less than Significant	Less than Significant
Notes: ¹ Background Level 3 at year 2010 for 1-hour, multiplied by 0.7 persistence factor for the 8-hour concentration ² Derived from El Dorado AQMD Guide Table 6.4, Project-Related CO Concentration Levels. ppm = parts per million (concentration) Source: KHA, 2010; EDAQMD, 2002.		

PM₁₀ and SO₂ emissions from the Project would be generated by mobile emissions, and be distributed throughout the project area where the trips occur; therefore, the Project is unlikely to generate a localized exceedance of the PM₁₀, PM_{2.5} or SO₂ standards through operation. Therefore, the Project's increases in emissions would not result in a violation of the PM₁₀, PM_{2.5} or SO₂ standards and would result in less than significant health effects from exposure of sensitive receptors to these emissions.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

Short-term construction impacts associated with the offsite improvements would include fugitive dust and other particulate matter, as well as exhaust emissions generated by rough grading, soil hauling, excavation and site work. Short-term impacts would also include emissions generated during

construction of structural facilities (structural forms and rebar), paving and striping, and the use of personal vehicles by construction workers.

As stated above, the Guide states that mass emissions of fugitive dust need not be quantified and may be assumed to be less than significant, if a project includes mitigation measures that will prevent visible dust beyond the property line, as detailed in CEQA Guidelines Tables C.4 and C.5 (EDAQMD 2002). This recommendation was made prior to EDAQMD's adoption of Rule 223-1 (Fugitive Dust), which limits the fugitive dust from construction and construction-related activities.

The construction of offsite improvements is required to incorporate dust control measures in compliance with Rule 223-1 (see Section 4.3.9, above). Therefore, offsite improvements would generate less than significant amounts of fugitive PM₁₀ and PM_{2.5} emissions.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Regional Air Quality Impact Contribution

Impact AIR-3:	The Project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.
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Impact Analysis

The nonattainment pollutants of concern for this impact are ozone, PM₁₀ and PM_{2.5}. Impact AIR-2 analyzed the Project's potential for PM₁₀ impacts, and found the Project would be less than significant. The El Dorado AQMD does not have thresholds of significance for PM_{2.5}. For the purposes of analysis, potential significance of project-generated PM₁₀ is used as a proxy of potential PM_{2.5}. Therefore, the Project's generation of PM_{2.5} is less than significant.

Ozone is not emitted directly into the air but is a regional pollutant formed by a photochemical reaction in the atmosphere. Ozone precursors, ROG and NO_x, react in the atmosphere in the presence of sunlight to form ozone. Therefore, the El Dorado AQMD does not have a recommended ozone threshold, but it has regional thresholds of significance for project-emitted NO_x and ROG.

El Dorado AQMD has established quantitative significance criteria for ozone (Table 4.2-8). If any of the thresholds are exceeded, then a Project is deemed to have a significant air quality impact. The daily operational emissions "significance" thresholds are 82 pounds per day of ROG or NO_x.

Table 4.2-8: Ozone Precursor Significance Thresholds

Pollutant	Pounds per Day
NO _x	82
ROG	82
Source: EDAQMD, 2002.	

Onsite Improvements

Construction

Project-specific emissions modeling was performed to determine the level of significance from project-generated construction exhaust. URBEMIS2007 version 9.2.4 (URBEMIS) was used by MBA to quantify project-generated construction emissions. For the purposes of air quality analysis, construction of the Proposed Project was assumed to begin in 2011. However, that timeline is now in the past. The modeling analysis and results remain valid, as the type, duration and intensity of activity would not be changed, just the beginning date of construction, and the emission factors for the statewide construction fleet (utilized for the emissions analysis) reduce over time; that is, construction equipment becomes cleaner and less polluting in future years. The Project would be built in four phases as detailed in the project description. However, the phasing of construction components is currently unknown; therefore, the URBEMIS default construction phase durations were utilized in the modeling analysis. The following project-specific assumptions and modeling parameters were incorporated into the analysis.

- Construction would start in July 2011.
- Thirty-one total acres would be graded during construction. This acreage includes onsite grading, drainage and detention-basin grading and adjacent roadway improvements.
- Up to 7 acres could be graded on any one day.
- Up to 28,000 cubic yards of soil would be exported during grading, and exported soils may be hauled up to 40 miles from the project site.
- Grading activities would be completed prior to paving and building construction activities.

Construction-generated ROG and NO_x are provided in Table 4.2-9. As shown below, project emissions would exceed the El Dorado AQMD's threshold for ROG in 2012. Therefore, the Project's construction-related ROG emissions are potentially significant. Project emissions of NO_x would be less than the El Dorado AQMD's threshold and, therefore, less than significant.

The main contributing source of significant quantities of ROG is the architectural coatings phase. Accordingly, Mitigation Measure AIR-3a is required to reduce construction-generated ROG to less than significant. The Project's mitigated 2012 construction emissions are provided in Table 4.2-10. Implementation of Mitigation Measure AIR-3a would substantially reduce ROG from architectural

coatings, and reduce the Project's contribution of ozone precursors from construction to less than significant.

Table 4.2-9: Construction Emissions

Phase	Maximum Daily Emissions (pounds per day)	
	ROG	NO _x
2011		
Fine Grading	7.07	79.16
Asphalt	4.46	19.32
Building	4.77	19.79
Maximum Daily for 2011	9.23	79.16
2012		
Building	4.41	18.55
Architectural Coating	296.02	0.32
Maximum Daily for 2012	300.43	18.87
El Dorado AQMD Threshold of Significance	82	82
Significant Impact?	Yes	No
Notes: Not all phases occur at the same time; therefore, maximum daily emissions are not the summation of all phases. Source: MBA, 2010.		

Table 4.2-10: Mitigated Construction Emissions

Phase	Maximum Daily Emissions (pounds per day)	
	ROG	NO _x
2012		
Building	4.41	18.55
Architectural Coating	59.37	0.32
Maximum Daily for 2012	63.77	18.87
El Dorado AQMD Threshold of Significance	82	82
Significant Impact?	No	No
Notes: An 80 percent reduction in ROG (also known as VOC) from Architectural Coatings phase was applied, as the default assumption is 250 grams per liter of VOC was reduced to 50 grams per liter, consistent with the applied mitigation. Source: MBA, 2010.		

Operation

URBEMIS was used by MBA to quantify project-generated operational emissions. The trip generation data provided in the Traffic Impact Study were utilized. In addition, the percent of pass-by trips was increased from the model default to 30 percent, consistent with the Traffic Impact Study. The percent direct and diverted link trips were reduced by an equal level to account for the increased pass-by trips. Therefore, the trip generation rate in URBEMIS remained the total 13,568 unadjusted trips, and the selection of the “pass-by” option applied the 30 percent pass-by trip rate consistent with the Traffic Impact Study.

In addition, the emission analysis utilized the 290,015-square-foot project size contained in the Traffic Impact Study. The following site-specific measures were incorporated into the analysis:

- One hundred percent of Arterials/Collectors have bike lanes or where suitable, direct parallel routes exist.
- The Project would be located adjacent to three planned bus turnouts. Assuming the turnouts received a similar level of bus service as the Diamond Springs bus route, the Project would have 33 daily weekday buses stopping within 0.25 mile of the site.
- The Project would be providing a local-serving land use near existing residences.
- The Project would provide bicycle parking.

Because the URBEMIS model is configured to account for any measure that reduces trip generation as “mitigation,” incorporation of the project parameters that reduce trip generation are assessed as mitigation within the model, although the measures are not considered mitigation under CEQA. Therefore, the “mitigated” URBEMIS output is the baseline operational emissions for the Project.

Operation-generated ROG and NO_x are provided in Table 4.2-11. As shown below, the El Dorado AQMD’s thresholds for ROG and NO_x would be exceeded during both the summer and winter. The main contributing source of ROG and NO_x are vehicular, or mobile, emissions. Mitigation Measures AIR-3b, AIR-3c, and AIR-3d are required to reduce operational emissions. However, the emissions reduction attributable to the mitigation measures is not sufficient to reduce the Project’s operational emission to less than significant. Project-generated emissions after inclusion of Mitigation Measures AIR-3b, AIR-3c, and AIR-3d are provided in Table 4.2-12.

Table 4.2-11: Operational Emissions

Source	Daily Emissions (pounds per day)	
	ROG	NO _x
Summer		
Area Sources	2.02	2.82
Mobile Sources	93.07	90.11
Maximum Daily for Summer	95.09	92.93
Winter		
Area Sources	1.90	2.80
Mobile Sources	118.74	133.53
Maximum Daily for Winter	120.64	136.33
El Dorado AQMD Threshold of Significance	82	82
Significant Impact?	Yes	Yes
Notes: Year 2012 Analysis. Incorporates project design features and locational measures that reduce project emissions. ROG = reactive organic gases NO _x = nitrogen oxides Source: MBA, 2010.		

Table 4.2-12: Mitigated Operational Emissions

Source	Daily Emissions (pounds per day)	
	ROG	NO _x
Summer		
Area Sources	1.98	2.26
Mobile Sources	93.04	90.08
Maximum Daily for Summer	95.02	92.34
Winter		
Area Sources	1.86	2.24
Mobile Sources	118.70	133.49
Maximum Daily for Winter	120.56	135.73
El Dorado AQMD Threshold of Significance	82	82
Significant Impact?	Yes	Yes
Notes: Year 2012 Analysis. Incorporates Mitigation Measures AIR-3b, AIR-3c, and AIR-3d. ROG = reactive organic gases NO _x = nitrogen oxides Source: MBA, 2010.		

As shown in Table 4.2-12, mobile emissions alone would be substantially higher than the El Dorado AQMD's thresholds of significance for ROG and NO_x, with winter emissions higher than summer emissions. In winter, the Project's mobile emissions would be approximately 45 percent higher than the threshold of significance for ROG, and over 60 percent higher than the threshold of significance for NO_x.

Appendix E of the El Dorado AQMD's Guide was reviewed for additional mitigation to reduce operational emissions. The Project is currently implementing pedestrian, bicycle, and transit measures through project design features and by its location near planned transit and bicycle paths. Remaining potential mitigation measures that target mobile emissions are not feasible for the Project for one of the following reasons:

- Implementation of the mitigation measure is outside the project developer's control (e.g., level of bus service).
- The mitigation measure is not appropriate for the project area (e.g., provide high density mixed or retail/commercial within 0.25 mile of existing transit).
- The mitigation measure would not be feasible for the type of project (e.g., paid parking system with no validations).

Accordingly, impacts resulting from ROG and NO_x emissions would remain potentially significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

- MM AIR-3a** In order to reduce the Project's construction emissions to less than significant, the project developer shall use low-volatile organic compound (VOC) paints with a maximum of 50 grams per liter VOC content. More information about low-VOC paints and compliant paint products can be found at <http://www.aqmd.gov/prdas/brochures/paintguide.html>.
- MM AIR-3b** Shower and locker facilities shall be installed in major anchor buildings, as well commercial, office, and industrial buildings to encourage employees to bike and/or walk to work. A minimum of three lockers for every 25 employees shall be installed. Each building shall have two showers installed.
- MM AIR-3c** The Project shall install display cases or kiosks displaying transportation information (ridesharing information, transit schedules, bicycle route and path information) in a prominent area accessible to employees and visitors.

- MM AIR-3d** The project buildings shall be designed and built to achieve an average of 20 percent efficiency above current Title 24 requirements to increase energy efficiency and reduce emissions associated with electricity generation. The method for achieving the 20 percent efficiency will depend on project specifics not known at this time, such as insulation values.
- MM AIR-3e** The project buildings shall install only Energy Star heating and cooling appliances.
- MM AIR-3f** The Project shall install only Energy Star-labeled roof materials.

Level of Significance After Mitigation

Significant and unavoidable impact.

Offsite Improvements

Emissions modeling was not performed for the construction of offsite improvements, as the details of project length, width, depth, activity phasing and duration are currently unknown. However, construction activities for the offsite improvements would be substantially similar to the asphalt phase of construction for onsite improvements, which was quantified above. Asphalt, or paving, activities for onsite improvements would not exceed the El Dorado AQMD's threshold of significance, as shown in Table 4.2-9. Onsite paving would result in less than 4.5 pounds per day of ROG, and less than 20 pounds per day of NO_x. In contrast, the El Dorado AQMD's threshold of significance is 82 pounds per day each for ROG and NO_x. It is unlikely that construction of offsite improvements would involve a substantially greater daily rate of activity. Therefore, by proxy analysis, the construction of offsite improvements would not result in emissions greater than the El Dorado AQMD's threshold of significance and would result in a less than significant impact.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Sensitive Receptors

Impact AIR-4: The Project would not expose sensitive receptors to substantial pollutant concentrations.

Impact Analysis

As stated in the El Dorado AQMD's CEQA Guide, localized impacts to sensitive receptors generally occur in one of two ways:

- A (new) source of air pollutants is proposed to be located close to existing sensitive receptors, or
- A (new) sensitive receptor is proposed near an existing source of air pollutants.

The Project would not include new sensitive receptors. However, existing residents are located close to the project site, as described in Section 4.2.2. In addition, the Project has the potential to generate five distinct pollutants that may impact sensitive receptors: CO, dust during construction, naturally occurring asbestos, benzene emissions from the proposed gas station, and diesel particulate matter (DPM) during construction and project operations.

Onsite Improvements

CO Hot spot and Fugitive Dust

As shown in Impact AIR-2, above, the Project would generate less than significant impacts for construction-generated dust impacts, and operational CO. Therefore, dust generated during construction would not expose sensitive receptors to substantial PM₁₀ or PM_{2.5} concentrations, and CO generated during operation would not expose sensitive receptors to substantial CO concentrations.

Naturally Occurring Asbestos

During construction in areas that contain naturally occurring asbestos (NOA)-containing rock formations, asbestos can be released into the air and pose a health hazard. The Department of Conservation, Division of Mines and Geology has a published guide for generally identifying areas that are likely to contain NOA in western El Dorado County (DMG 2002). In addition, El Dorado County has prepared the parcel-based map “Asbestos Review Areas, Western Slope” which shows areas of known NOA and areas likely to have NOA, as well as 0.25-mile buffers around known and likely NOA areas (EDC 2005).

The Asbestos Review Areas Western Slope map was reviewed to determine if the project was located within 0.25 mile of a found NOA, or within 0.25 mile of an area “more likely to contain asbestos.” The project is located well outside of the 0.25-mile buffer for known locations of NOA and areas likely to contain asbestos; therefore, it is not foreseeable that disturbance of soils in the Proposed Project’s area would increase airborne asbestos. The potential for asbestos-related impacts is less than significant.

Benzene

Gasoline contains several toxic components, including benzene, ethyl benzene, toluene, xylene, and methyl tertiary butyl ether. The ARB published an Air Quality and Land Use Handbook (ARB 2005), which has voluntary recommendations that will “help keep California’s children and other vulnerable populations out of harm’s way with respect to nearby sources of air pollution” (ARB 2005, page ES-1). The ARB recommends avoiding placing sensitive receptors within 300 feet of a large gasoline station and within 50 feet of a typical gasoline station. A large gasoline station is defined as a facility with a throughput of 3.6 million gallon per year or greater.

The throughput of the proposed gasoline station is currently unknown. It is assumed that the facility could receive up to one large tanker (9,000-gallon capacity) per day, for an annual throughput of just under 3.3 million gallons. Therefore, the Project would not be considered a large gasoline facility. In addition, the nearest sensitive receptor is an existing residence located over 1,000 feet south of the proposed gasoline station. Therefore, the siting of the gasoline station would not result in a land use conflict with sensitive receptors or expose sensitive receptors to substantial pollutant concentrations. Impacts related to benzene would be less than significant.

Diesel Particulate Matter

El Dorado AQMD has adopted the following significance thresholds for Toxic Air Contaminants:

- Probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds 1 in one million (10 in 1 million if best available technology for toxic air contaminants is applied), or
- Ground-level concentrations of non-carcinogenic toxic air contaminants would result in a Hazard Index greater than 1 for the MEI.

The ARB has increased regulation of on-road diesel vehicles, including implementing a statewide truck and bus retrofit program, inspections, and idling restrictions for commercial vehicles. Therefore, the best available control technology is currently applied to the fleet that would be visiting the project site, and the threshold of 10 in 1 million for probability of contracting cancer for the MEI will be applied to the analysis.

Construction

Construction equipment would emit DPM, which is a carcinogen. However, the DPM emissions would be short-term in nature. Determination of risk from DPM is considered over a 70-year exposure time. Therefore, considering the dispersion of the emissions and the short time frame during which emissions would occur, exposure to DPM during construction is anticipated to be less than significant.

Operation

Activities associated with the project operations that require the use of diesel-fueled vehicles for extended periods, such as delivery vehicles for the commercial buildings, would generate DPM emissions that could expose sensitive receptors to DPM. The DPM emissions generated by these uses would be produced at several points within the Project (e.g., travel routes within the Project to the various buildings, the building loading docks, transport refrigeration units, or TRUs) on a somewhat regular basis. Therefore, existing residences to the south may be exposed to elevated levels of DPM emissions on a recurring basis.

MBA prepared a Health Risk Assessment (HRA) to quantitatively assess the potential for the Proposed Project to generate an adverse health impact on sensitive receptors. The dispersion model

output and emissions calculations are provided in Appendix C, Air Quality Data. The following models and resources were used in the assessment.

- The U.S. Environmental Protection Agency Industrial Source Complex model (EPA 1995), the air dispersion modeling method approved by the ARB for such assessments.
- The ARB EMFAC2007 mobile emission source model (ARB 2006), used to calculate exhaust and idling emissions from the various mobile sources (delivery trucks) that will access the project site during operation.
- The California Office of Environmental Health Hazard Assessment Tier I risk assessment methodology, used to estimate potential cancer risks from DPM emissions (OEHHA 2003).
- U.S. EPA AERMOD air dispersion model, to predict pollutant concentrations from sources with variable emissions in terrain from flat to complex with the inclusion of building downwash effects from buildings on pollutant dispersion.

Table 4.2-13 contains the assumed delivery truck parameters utilized in the analysis. The potential tenant of the Major-1 building (the largest building onsite) is currently unknown. Therefore, for the purposes of a conservative analysis, it was assumed that the tenant would be a grocer/supermarket and attract delivery trucks with TRUs.

Table 4.2-14, Table 4.2-15, and Table 4.2-16 contain the emission factors, spatial configuration assumptions, and modeling assumptions utilized in the HRA. The factors of exposure, such as duration of exposure to DPM and receptor type (workers at the MRF and the nearest residential unit were included as sensitive receptors) are contained in Table 4.2-17.

Table 4.2-13: Delivery Trucks Estimates

Development	Delivery Trucks per Day	Truck Class
Supermarket without TRUs	6	4+ axle
Supermarket with TRUs	3	4+axle
Supermarket light delivery	10	2 axle
Other Retail with TRUs	4	4+ axle
Other commercial light delivery	8	2 axle
Notes: All delivery trucks assumed to be diesel trucks. Source: MBA, 2010.		

Table 4.2-14: Emission Factors for Operational DPM Emissions

Emission Source	Emission Factors – 2012 ^{(1),(4),(5)}
Exhaust Emission 4+ axle truck (g/mi) ⁽²⁾ 2 axle truck (g/mi) TRU (g/hp-hr) ⁽³⁾	1.18 0.075 0.22
Idle Emissions ⁽⁴⁾ 4+ axle truck (g/hr) 2 axle truck (g/hr) TRU (g/hr)	1.721 0.767 0.22
Notes: ¹ All motor vehicle emission factors were derived from the EMFAC2007 model for El Dorado County as diesel PM ₁₀ exhaust. ² Exhaust emissions for the 4+ axle (HHD DSL) trucks assumed a travel speed of 10 mph; air temperature of 40 degrees Fahrenheit and a relative humidity of 50 percent were assumed as representative of average winter weather conditions. ³ The TRU emission factors were derived from the ARB ATCM for TRUs ISOR Appendix D:TRU size=35 hp: ARB 2004. During idling TRUs were assumed to be operating for 30 minutes. ⁴ The idling emission factors for the 4+ axle and for 2 axle trucks assumed a speed of 0 mph. ⁵ Emission factor units: g/mi (grams per mile); g/hr (grams per idle-hour) g/hp-hr (grams per brake horsepower-hour).	

Table 4.2-15: Summary of Emission Source Configurations

Emission Source Type	Geometric Configuration	Relevant Assumptions
Onsite Diesel Truck Traffic	Line Sources	<ul style="list-style-type: none"> See Table 4.2-13 for an inventory of truck operations Stack release height: 12.6 feet Vehicle speed: 10 mph Length of the line source (distances from the facility entrances along Lime Kiln Rd. to the loading dock) Vehicle types: heavy-duty diesel delivery trucks Emission factor: ARB EMFAC2007
Onsite Diesel Truck Idling	Point Sources located at each facility	<ul style="list-style-type: none"> Stack release height: 12.6 feet Stack release characteristics <ul style="list-style-type: none"> > Stack diameter: 0.3 feet > Stack velocity: 170 feet/sec > Stack temperature: 200°F Idle time: 5 minutes per truck per day, according to ARB 2005 Vehicle type: heavy-duty and light heavy-duty diesel delivery trucks Emission factor: ARB EMFAC2007

Table 4.2-15 (cont.): Summary of Emission Source Configurations

Emission Source Type	Geometric Configuration	Relevant Assumptions
Onsite Diesel TRU	Point Sources at each facility loading dock; emissions also include operation while traveling onsite	<ul style="list-style-type: none"> Stack release height: 12.6 feet TRU Size: 35 horsepower (typical size) Cooling time (idling): 30 minutes per truck per day Load factor: 60% On/off Cycle Factor: 50% Emission factor: ARB ATCM for TRUs (ARB 2004 and 2008b)
<p>Notes:</p> <p>Point source: A single identifiable local source of emissions; it is approximated in the AERMOD air dispersion model as a mathematical point in the modeling region with a location and emission characteristics such as height of release, temperature, etc. (for example, a truck idle location).</p> <p>Line source: A series of volume sources along a path (for example, vehicular traffic along a roadway).</p> <p>Source: ARB 2004; ARB 2008a and 2008b.</p>		

Table 4.2-16: AERMOD Modeling Assumptions

Model Feature	Option Selected
Terrain processing	Flat terrain
Emission source configuration	See Table 4.2-15
Regulatory dispersion options	<ul style="list-style-type: none"> Includes missing data processing routine Includes calm processing option
Land use	Rural
Coordinate system	UTM
Building downwash	Included in calculations
Receptor height	1.5 meters above ground
Averaging time	Annual
<p>Notes:</p> <p>UTM = Universal Transverse Mercator.</p>	

Table 4.2-17: Values of the Inhalation Exposure Factor for DPM

Major Retail and Other Retail Operations					
Receptor	CPF (mg/kg-day) ⁻¹	DBR (liters/kg-day)	EF (days/yr)	ED (years)	AT (days)
Residential	1.1	302	350	70	25,550
Offsite Worker	1.1	149	245	40	25,550
<p>Notes:</p> <p>CPF = inhalation cancer potency factor DBR = daily breathing rate EF = emission factor</p> <p>ED = exposure duration AT = averaging time for cancer risk</p> <p>Source: OEHHA 2003; BAAQMD 2005.</p>					

Table 4.2-18: Summary of Cancer Risks at Sensitive Receptors

Major Retail and Other Retail Operations			
Project Year	Location	Project Cancer Risk (risk per million)	Significance Threshold (risk per million)
2012	Maximum Exposed Residential Receptor ¹	2.9	10
2012	Maximum Exposed Worker Receptor ²	0.2	10
Notes: ¹ The location of the maximum exposed cancer risk at a residential receptor occurs at a residence located 0.4 mile south of the project site. ² The location of the maximum exposed worker occurs at the MRF. Source: MBA, 2010: Health Risk Assessment Modeling Output (Appendix C.2)			

As shown in Table 4.2-18, project emissions of TACs would result in cancer risks less than the threshold of 10 in one million. The Project would generate a less than significant impact for TACs exposure to nearby sensitive land uses.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

CO Hot spot and Fugitive Dust

As shown in Impact AIR-2, above, the offsite improvements would generate less than significant impacts for construction-generated dust impacts. Therefore, dust generated during offsite improvements construction would not expose sensitive receptors to substantial PM₁₀ or PM_{2.5} concentrations.

Naturally Occurring Asbestos

As discussed under Onsite Improvements, above, the Asbestos Review Areas Western Slope map was reviewed to determine if the Project was located within 0.25 mile of found NOA, or within 0.25 mile of an area “more likely to contain asbestos.” The Project is located well outside of the 0.25-mile buffer for known locations of NOA and areas likely to contains asbestos; therefore, it is not foreseeable that disturbance of soils in the Proposed Project’s area would increase airborne asbestos. The potential for asbestos-related impacts is less than significant.

Diesel Particulate Matter

El Dorado AQMD has adopted the following significance thresholds for Toxic Air Contaminants:

- Probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds 1 in one million (10 in 1 million if best available technology for toxic air contaminants is applied), or
- Ground-level concentrations of non-carcinogenic toxic air contaminants would result in a Hazard Index greater than 1 for the MEI.

The ARB has increased regulation of on-road diesel vehicles, including implementing a statewide truck and bus retrofit program, inspections, and idling restrictions for commercial vehicles. Therefore, the best available control technology is currently applied to the fleet that would be visiting the project site, and the threshold of 10 in 1 million for probability of contracting cancer for the MEI will be applied to the analysis.

Construction equipment would emit DPM, which is a carcinogen. However, the DPM emissions would be short-term in nature. Determination of risk from DPM is considered over a 70-year exposure time. Therefore, considering the dispersion of the emissions and the short time frame during which emissions would occur, exposure to DPM during construction is anticipated to be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Odors

Impact AIR-5:	The Project would not create objectionable odors affecting a substantial number of people.
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Impact Analysis

Odor impacts are based on the location of the sensitive receptors relative to sources of odors. For projects that could be generators of odors, concern focuses on which sensitive receptors are located close to the Project. Alternatively, a project can be a new sensitive receptor that could be affected by sources of air pollution or odors. Shopping centers are generally not facilities that are known to produce odors. Therefore, it is unlikely that the Project would generate substantial odors that would affect nearby sensitive receptors. However, the Project would result in locating employees and

visitors within close range of the existing Material Recovery Facility (MRF), which is a transfer facility for municipal wastes. Therefore, the Project may be impacted by the MRF.

The El Dorado AQMD's CEQA Guide provides the following qualitative significance criteria for odors:

(If) the project results in excessive odors, as defined under the Health & Safety Code definition of an air quality nuisance.

El Dorado AQMD Rule 205 defines nuisance as “. . . such quantities of air contaminants or other material which cause 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 person or to the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.”

Onsite Improvements

An Odor Impact Analysis has been completed for the Proposed Project and is included as Appendix C.3. As indicated in the Odor Impact Analysis, there are generally two ways to analyze potential odor impacts—qualitatively through a review of odor complaints, and quantitatively through dispersion modeling. Both methods of analysis were utilized to determine the potential significance of odor impacts related to the Project. The quantitative analysis addresses the greenwaste processing activities. As shown in the qualitative and quantitative assessments below, the potential for the Project to expose a substantial number of people to objectionable odors from the MRF is less than significant.

Qualitative Assessment

A complaint history was reviewed for the MRF and for similarly sized facilities in other jurisdictions. Existing residences are located approximately 250 feet south of the MRF. The El Dorado AQMD indicated that there have been no complaints registered regarding odors from the MRF since the MRF's opening in 1996. The Placer County Environmental Health Department, which is certified as the Lead Enforcement Agency for El Dorado County's implementation of state solid waste statutes and regulations, also indicated that no odor complaints have been registered for the MRF (Estolas pers. comm. 2010). However, the El Dorado County Environmental Management Department indicated that eight odor complaints are on file for the MRF, all occurring during 2000 through 2003. Complaints were from nearby residences, generally occurring during warmer months (May through October). Action was taken on all complaints and case-closed status assigned. No violations were noted at the MRF during investigation of the complaints.

A study of odor emissions from other material recovery facilities located in the South Coast Air Quality Management District (SCAQMD) indicated there have been no complaints registered from facilities permitted to process 400 tons of waste per day, which is the maximum allowable throughput

of the MRF located adjacent to the project site. Because no odor complaints have been issued for the MRF or similar facilities, impacts related to objectionable odors would be less than significant under the qualitative assessment.

Quantitative Assessment

The quantitative analysis used the odor assessment methodology developed by SCAMQD. Studies have shown odor complaints are registered when an odor concentration is 3 to 5 times the level at which the compound can be detected by the “average” person (Pope and Diosey 2000). The SCAQMD set a quantitative odor threshold of significance in its 1993 CEQA Air Quality Handbook that is based on the American Society of Testing Materials (ASTM) Standard Method D 1391, which considers how many times an air sample must be diluted with “clean” air before the odor is no longer detectable to an average adult with average odor sensitivity. This analysis uses the SCAQMD odor threshold to determine potential significance of odor from the MRF on the Proposed Project.

In accordance with the 1993 CEQA Air Quality Handbook (with November 1993 Updates), the quantitative threshold of significance is set at a factor of 5 on the “dilution to threshold” series, which consists of ascending levels of odor concentration. From one level to the next, the dilution of the odorant decreases and the amount of odorous air increases. A factor of 2 is the level at which an odor becomes faintly detectable to almost all receptors. A factor of 5 is the level at which people become consciously aware of the presence of an odor. Between factors 5 and 10, an odor is strong enough to evoke registered complaints. (SCAQMD 1993).

As previously mentioned, the MRF is permitted to process 400 tons of mixed solid waste per day, 175 tons of construction and demolition debris per day, and 200 tons of greenwaste per day. The MRF is a mostly enclosed facility that transfers mixed solid waste within 24 hours and employs a system of misters to mitigate potential odors.

Very little information was found on general odor research of MRFs; however, emissions data were available for greenwaste processing and composting. Other studies have shown that greenwaste composting facilities emit ammonia (SCAQMD 2002). The Odor Impact Analysis (Appendix C.3) contains quantitative modeling that estimates the concentrations of ammonia at sensitive receptors located at the DDRC. According to the modeling analysis included in the Odor Impact Analysis, the concentration of ammonia emitted at the greenwaste processing section of the MRF is less than the threshold of significance of a factor of 5 on the “dilution to threshold” series.

According to the El Dorado County Air Quality Management District’s Guide to Air Quality Assessment, the determination of significance should be based on the distance and frequency at which odor complaints from the public have occurred in the vicinity of a similar facility. Transfer stations are specifically identified in Table 3.1 of the Guide to Air Quality Assessment as a type of facility known to produce odors. The Guide to Air Quality Assessment indicates that the most effective

mitigation strategy is to provide sufficient distance, or buffer zone, between the source and the receptors.

Conclusion

In summary, the qualitative analysis indicated impacts related to objectionable odors would be less than significant. Similarly, under the quantitative analysis, available information indicated that impacts related to objectionable odors would be less than significant. Accordingly, objectionable odor impacts related to locating the proposed DDRC adjacent to the MRF would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

Roadway improvements do not involve activities or land uses known to generate substantial quantities of adverse odors. Furthermore, construction activities associated with the offsite improvements would be temporary in nature. Therefore, construction of the offsite improvements would not generate an odor impact.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No impact.

Greenhouse Gas Generation

Impact AIR-6:	The Project would generate greenhouse gas emission, either directly or indirectly, that may have a significant impact on the environment.
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Impact Analysis

Threshold

The El Dorado AQMD does not have a recommended threshold of significance for project-level greenhouse gas emissions. Further, El Dorado County has not adopted a regional plan for reducing greenhouse gases. As such, and without written guidance from the El Dorado AQMD, the threshold

of significance for analysis applied to this Project will be a combination of quantitative and qualitative analysis. The quantitative portion contains the project emissions inventory. The qualitative portion involves the degree of incorporation of greenhouse gas emission reduction measures. This combined approach is appropriate for analyzing the Project's potential impact, because it reviews the Project's specific emissions as well as how the design of the Project implements known measures and strategies to minimize and reduce greenhouse gas emissions from new development.

For general reference, the Bay Area Air Quality Management District has adopted a multi-tier threshold that utilizes (in sequence):

1. Compliance with a qualified Greenhouse Gas Reduction Strategy, or
2. 1,100 metric tons of CO₂ equivalent per year, or
3. 4.6 metric tons of CO₂ equivalent per service population (employees plus residents).

In addition, the South Coast Air Quality Management District has adopted a threshold of 10,000 MTCO₂ per year for stationary sources where the South Coast Air Quality Management District is the Lead Agency.

Onsite Improvements

Emissions Inventory

The Proposed Project contributes to climate change impacts through its contribution of greenhouse gases. The Proposed Project would generate a variety of greenhouse gases during construction and operation, including several defined by AB 32, such as CO₂, CH₄, and N₂O, as well as fugitive emissions of refrigerants. The Proposed Project would emit greenhouse gases such as CO₂, CH₄, and N₂O from the exhaust of equipment and the exhaust of vehicles for employees, residents, visitors, and hauling trips.

Global warming potential is used to calculate the carbon dioxide equivalent of a greenhouse gas. Using carbon dioxide equivalents creates a consistent methodology for comparing greenhouse gas emissions, since it normalizes various greenhouse gas emissions to a consistent metric. A carbon dioxide equivalent is the mass emissions (tons) of an individual greenhouse gas multiplied by its global warming potential.

The Proposed Project may also emit greenhouse gases that are not defined by AB 32. For example, the Proposed Project may generate aerosols from diesel particulate matter exhaust. Aerosols are short-lived greenhouse gases, as they remain in the atmosphere for about 1 week. Black carbon is a component of aerosol. Some studies have indicated that black carbon has a high global warming potential; however, the Inter Governmental Panel on Climate Change states that these findings have a low level of scientific certainty (IPCC 2007). The Proposed Project would emit nitrogen oxides and volatile organic compounds, which are ozone precursors. Ozone is a greenhouse gas; however, unlike

the other greenhouse gases, ozone in the troposphere is relatively short-lived and is being reduced in the troposphere on a daily basis.

Certain greenhouse gases defined by AB 32 would not be emitted by the Project. PFCs and SF₆ are typically used in industrial applications, none of which would be used by the Project. Therefore, it is not anticipated that the Proposed Project would emit PFCs or SF₆.

The Project would emit greenhouse gases during construction of the Project from combustion of fuels in worker vehicles accessing the site as well as from construction equipment. An upstream emission source (also known as life cycle emissions) refers to emissions that were generated during the manufacture of products to be used for construction of the Project. Upstream emission sources for the Project include but are not limited to the emissions from the manufacture of cement.

The upstream emissions were not estimated because they are not within the control of the Project and to do so would be speculative at this time. In other words, the greenhouse gas emissions inventory does not reflect every greenhouse gas emission produced during the creation of materials used to build the Project. Additionally, the California Air Pollution Control Officers Association's White Paper on CEQA & Climate Change supports this conclusion by stating: "The full life-cycle of GHG [greenhouse gas] emissions from construction activities is not accounted for . . . and the information needed to characterize [life-cycle emissions] would be speculative at the CEQA analysis level" (CAPCOA 2008). Therefore, pursuant to CEQA Guidelines Sections 15144 and 15145, upstream /life cycle emissions are speculative and no further discussion is necessary.

Construction

Greenhouse gases were estimated for construction as part of the URBEMIS modeling as described above. Construction of the Project is projected to emit approximately 448 metric tons of carbon dioxide equivalent (MTCO_{2e}). Construction emissions would be finite in nature, and occur prior to the ARB's reduction target year of 2020. Because AB32's target reduction is based on a rate of emissions to occur in the year of 2020 and project construction emissions would occur prior to that target year, the Project's construction would not contribute to the emissions rate of 2020 and would not conflict with the target emission reduction contained in AB 32. Construction emissions would be less than significant.

Operation

The primary concern for greenhouse gases is the Project's long-term operational emissions. Greenhouse gas emissions from the Proposed Project during operation would result from natural gas consumption, motor vehicles, and air conditioning units. Indirect emissions would be generated from electricity generation, and water treatment and transport. The energy and water consumption assumptions contained in the Public Services and Utilities section was used in the greenhouse gas analysis. In order to estimate emission of fugitive refrigerants, the analysis assumed 40 commercial

HVAC units would be included in the Project. Actual numbers and sizes of HVAC and refrigeration units for the Project are currently unknown.

An inventory of operational greenhouse gas emissions for the Proposed Project is presented below. The emissions are estimated and are converted to metric tons of MTCO₂e using the following formula:

$$\text{MTCO}_2\text{e} = (\text{tons of gas}) \times \text{global warming potential} \times (0.9072 \text{ metric tons of gas})$$

The emissions were estimated for the first year of full buildout, anticipated to occur in 2012. Emissions were estimated using the URBEMIS model.

Project operations are calculated to generate approximately 11,239 MTCO₂e per year after full buildout in 2012, as provided in Table 4.2-19. The main sources of emissions are from motor vehicles and electricity consumption.

Table 4.2-19: Operational Greenhouse Gas Generation (Year 2012)

Source	Emissions (MTCO ₂ e per year)
Motor Vehicles	8,107
Electricity	2,040
Natural Gas	558
Water Transport	15
HVAC	519
Total	11,239
Notes: MTCO ₂ e = metric tons of carbon dioxide equivalents (includes carbon dioxide, methane, nitrous oxide, and refrigerants) Source: MBA, 2010.	

Incorporation of Greenhouse Gas Reduction Measures

As detailed in the Project Description, the Project incorporates a variety of energy efficiency and water efficiency measures. Further, the Project will be located adjacent to existing and planned transit and bicycle infrastructure. As described in Impact AIR-3, the Project will be providing bicycle parking, and is a local serving retail facility locating near existing residences.

Conclusion

The Project has the potential to incorporate, but does not currently incorporate, additional measures to reduce energy consumption, water consumption, waste generation, and mobile emissions. Further, although not directly applicable to the Project, the Project would generate greater emissions than the BAAQMD and SCAQMD recommended thresholds. Therefore, the Project would result in potentially significant quantities of greenhouse gases during project operations. Inclusion of the

applicable and feasible mitigation measures would reduce the Project's generation of greenhouse gases.

However, as discussed in Impact AIR-1 and AIR-3, the Project would result in a net increase over what would be constructed under the current General Plan designation of Industrial. Mobile vehicles contribute most of the Project's operational emissions, and substantial reduction in trip generation for the Project is infeasible. Therefore, the Project would remain significant and unavoidable for generation of greenhouse gases.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measures PSU-3a, PSU-3b, PSU-6a, PSU-6b, AIR-3b, AIR-3c, and AIR-3d.

Level of Significance After Mitigation

Significant and unavoidable impact.

Offsite Improvements

Greenhouse gases were not estimated for offsite improvements construction; instead, the asphalt phase (installation of paved surfaces) of onsite improvements construction was used as a proxy to estimate the offsite improvement's potential for adverse air quality impacts. Construction of the asphalt phase of the onsite improvements is projected to emit approximately 9.5 MTCO_{2e}. Construction emissions would be finite in nature, and occur prior to the ARB's reduction target year of 2020. Because AB32's target reduction is based on a rate of emissions to occur in the year of 2020 and construction emissions for offsite improvements would occur prior to that target year, the offsite improvements' construction would not contribute to the emissions rate of 2020 and would not conflict with the target emission reduction contained in AB 32. Construction emissions would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Greenhouse Gas Plan Consistency

Impact AIR-7: The Project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Impact Analysis

As stated above, El Dorado County and El Dorado AQMD currently do not have any plan adopted to reduce the emissions of greenhouse gases. Therefore, the applicable plan for analysis is the ARB's Scoping Plan.

Emission reductions in California alone would not be able to stabilize the concentration of greenhouse gases in the earth's atmosphere. However, California's actions set an example and drive progress towards a reduction in greenhouse gases elsewhere. Arguably, if other states and countries were to follow California's emission reduction targets, this could avoid medium or higher ranges of global temperature increases. Thus, severe consequences of climate change could also be avoided.

The ARB-approved a Climate Change Scoping Plan in December 2008. The Scoping Plan outlines the State's strategy to achieve the 2020 greenhouse gas emissions limit. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (ARB 2008b). The measures in the Scoping Plan will be developed and in place by 2012.

This Scoping Plan calls for an "ambitious but achievable" reduction in California's greenhouse gas emissions, cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 10 percent from today's levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020.

Onsite Improvements

Project consistency with applicable strategies in the Plan is assessed in Table 4.2-20. The strategies that are not applicable to the Project are shown in Table 4.2-21.

Table 4.2-20: Consistency with Applicable Scoping Plan Reduction Measures

Scoping Plan Reduction Measure	Project Consistency
3. Energy Efficiency. Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	Consistent with project design features and Mitigation Measure AIR-3d.

Table 4.2-20 (cont.): Consistency with Applicable Scoping Plan Reduction Measures

Scoping Plan Reduction Measure	Project Consistency
9. Million Solar Roofs Program. Install 3,000 MW of solar-electric capacity under California's existing solar programs.	Feasible, but not yet incorporated into the Project. It is currently unknown if installation of solar power is financially feasible for the Project. However, the buildings may be designed and constructed to structurally support installation of solar power, if installation is determined to be financially feasible. Mitigation Measure AIR-7a requires buildings to be designed and constructed as to support installation of solar roofing.
13. Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	Consistent with project design features that increase energy efficiency.
15. Recycling and Waste. Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	Consistent with project design features that reduce waste, Mitigation Measure PSU-6a, and Mitigation Measure PSU-6b.
17. Water. Continue efficiency programs and use cleaner energy sources to move and treat water.	Consistent with project design features, Mitigation Measure PSU-3a, and PSU-3b.
Notes: Source of ARB Scoping Plan Reduction Measure: ARB 2008b. Source of Project Consistency or Applicability: MBA, 2010.	

Table 4.2-21: Inapplicable Scoping Plan Reduction Measures

Scoping Plan Reduction Measure	Reason Why Not Applicable
1. California Cap-and-Trade Program Linked to Western Climate Initiative. Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	Not applicable. When this cap-and-trade system begins, products or services (such as electricity) would be covered and the cost of the cap-and-trade system would be transferred to the consumers.
2. California Light-Duty Vehicle Greenhouse Gas Standards. Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	Not applicable. This is a statewide measure that cannot be implemented by a project applicant or lead agency. When this measure is initiated, the standards would be applicable to the light-duty vehicles that would access the project site.

Table 4.2-21 (cont.): Inapplicable Scoping Plan Reduction Measures

Scoping Plan Reduction Measure	Reason Why Not Applicable
4. Renewable Portfolio Standard. Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.	Not Applicable. This is a statewide measure that cannot be implemented by a project applicant or lead agency.
5. Low Carbon Fuel Standard. Develop and adopt the Low Carbon Fuel Standard.	Not applicable. This is a statewide measure that cannot be implemented by a project applicant or lead agency. When this measure is initiated, the standard would be applicable to the fuel used by vehicles that would access the project site.
6. Regional Transportation-Related Greenhouse Gas Targets. Develop regional greenhouse gas emissions reduction targets for passenger vehicles. This measure refers to SB 375.	Not applicable.
7. Vehicle Efficiency Measures. Implement light-duty vehicle efficiency measures.	Not applicable. When this measure is initiated, the standards would be applicable to the light-duty vehicles that would access the project site.
8. Goods Movement. Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	Not applicable. The Proposed Project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.
10. Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.	Not applicable. This is a statewide measure that cannot be implemented by a project applicant or lead agency. When this measure is initiated, the standards would be applicable to the vehicles that access the project site.
11. Industrial Emissions. Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.	Not applicable. The Proposed Project is not an industrial use.
12. High Speed Rail. Support implementation of a high-speed rail system.	Not applicable. This is a statewide measure that cannot be implemented by a project applicant or lead agency.
14. High Global Warming Potential Gases. Adopt measures to reduce high global warming potential gases.	Not applicable. When this measure is initiated, it would be applicable to the high global warming potential gases that would be used by the project (such as in air conditioning and refrigerators).

Table 4.2-21 (cont.): Inapplicable Scoping Plan Reduction Measures

Scoping Plan Reduction Measure	Reason Why Not Applicable
16. Sustainable Forests. Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	Not applicable. The project site is in a disturbed, bare lot. No forested lands exist onsite.
18. Agriculture. In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.	Not applicable. The project site is in a disturbed, bare lot. No grazing, feedlot, or other agricultural activities that generate manure occur onsite or are proposed to be implemented by the Project.
Source for ARB Scoping Plan Reduction Measure: ARB, 2008b. Source for Project Consistency or Applicability: MBA, 2010.	

As shown above, the Project is consistent with the applicable strategies after inclusion of mitigation. However, the Project would still result in a substantial increase in emissions over what would occur if the parcel was built according to the General Plan designation. Therefore, increase in emissions was not accounted for in the General Plan and, by extension, the growth assumptions in the Scoping Plan. Because the Project's contribution of operational (long-term) greenhouse emissions would be greater than growth planned for the area, the Proposed Project's emissions would conflict with the Scoping Plan, and this impact would remain significant and unavoidable after incorporation of mitigation.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measures PSU-3a, PSU-3b, PSU-6a, PSU-6b, and AIR-3d.

MM AIR-7 Project buildings shall be constructed to provide structural support adequate to install solar panels at a later time. Components of structural support include roof design adequate to bear the load of solar panels as well as electrical infrastructure adequate to support solar panels.

Level of Significance After Mitigation

Significant and unavoidable impact.

Offsite Improvements

The offsite improvements would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. The offsite improvements would not directly nor indirectly attract or generate vehicular trips. The improvements are improvements to existing roads, intended only to improve traffic flow generated from existing and currently planned land uses. The emissions, which will be generated by vehicles traveling on the offsite improvements, would not be greater than if the roadway improvements were not constructed because the land uses

generating the vehicle trips are not being changed. In addition, the offsite improvements would not change the length of trips in the project area; therefore, vehicle miles traveled in the region would not increase as a result of the offsite improvements. Finally, because the improvements would improve vehicle flow and reduce congestion, the Project would result in a reduction of emissions from idling and slow-moving vehicles.

Construction activity to install the offsite improvements would generate greenhouse gases. However, construction emissions would be finite in nature and would occur prior to the ARB's reduction target year of 2020. Because AB32's target reduction is based on a rate of emissions to occur in the year of 2020 and construction emissions for offsite improvements would occur prior to that target year, the offsite improvement's construction would not contribute to the emissions rate of 2020 and would not conflict with the target emission reduction contained in AB 32.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

4.3 - Biological Resources

4.3.1 - Introduction

This section describes the existing biological setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analyses in this section are based on information prepared by Michael Brandman Associates (MBA) and contained in the Biological Resources Assessment for the Diamond Dorado Retail Center Project, El Dorado County, California, included in this EIR as Appendix D, Biological Resources Assessment. Subsequent to completing the Biological Resources Assessment, the Proposed Project footprint was altered. The following analysis of biological resource impacts is based on a smaller project footprint; therefore, some acreage totals included herein are different from those included in the Biological Resources Assessment. All areas within the current project footprint were included in previous biological resource studies.

4.3.2 - Environmental Setting

Elevation of the project site is approximately 1,800 feet above mean sea level. Average temperatures range from January lows of 32.4 degrees Fahrenheit (°F) to July highs of 92.6°F. Average annual precipitation is approximately 32.5 inches; precipitation falls primarily as rain with most precipitation occurring between the months of October and April.

The project site is located in Sections 24 and 25, Township 10 north, Range 10 east, and Sections 19 and 30, Township 30 north, Range 11 east, as shown on the Placerville, California United States Geological Survey (USGS) 7.5-minute topographic quadrangle. The project site encompasses approximately 30.63 acres and are bordered by several land use types, including industrial development to the north and west, undeveloped land to the east, and scattered residences to the south (Exhibit 3-2). Current land uses within the project site are primarily industrial, although there are several highly disturbed undeveloped areas as well as small inclusion of undisturbed areas (MBA 2008a).

Topography and Soils

The topography of the project site is relatively flat to gently sloping. The Natural Resources Conservation Service (NRCS) Web Soil Survey (Soil Staff undated) shows three soil-mapping units within the project site. Placer diggings (PrD) occur over a majority of the project site. These soils are classified as fine sandy loam with cobbles; the parent material is alluvium derived from mixed sources. Diamond Springs very fine sandy loam, 9 to 15 percent slopes (DfC) occurs in two small areas at the northern and southern edges of the project site. The parent material is fine-grained, acidic residuum weathered from igneous rock. Diamond Springs very fine sandy loam, 3 to 9 percent slopes (DfB) is restricted to a single, small patch in the north-central portion of the project site.

Vegetation Communities

Vegetation communities are assemblages of plant species that occur together in the same area and are defined by their structure and by the relative abundance of associated plant species. The vegetation communities within the project study area are classified as habitat types according to the Guide to Wildlife Habitats (Mayer and Laudenslayer 1988). By using this habitat classification system, it is possible to predict the wildlife species likely to occur within the study area using the California Wildlife Habitat Relationship System (CWHR). CWHR is based on the Guide to Wildlife Habitats; it is a predictive model that lists species likely to occur in a given location under certain habitat conditions. The project study area contains five CWHR vegetation communities/habitat types: blue oak-foothill pine, valley foothill riparian, annual grassland, urban, and barren (Exhibit 4.3-1).

Blue Oak-Foothill Pine

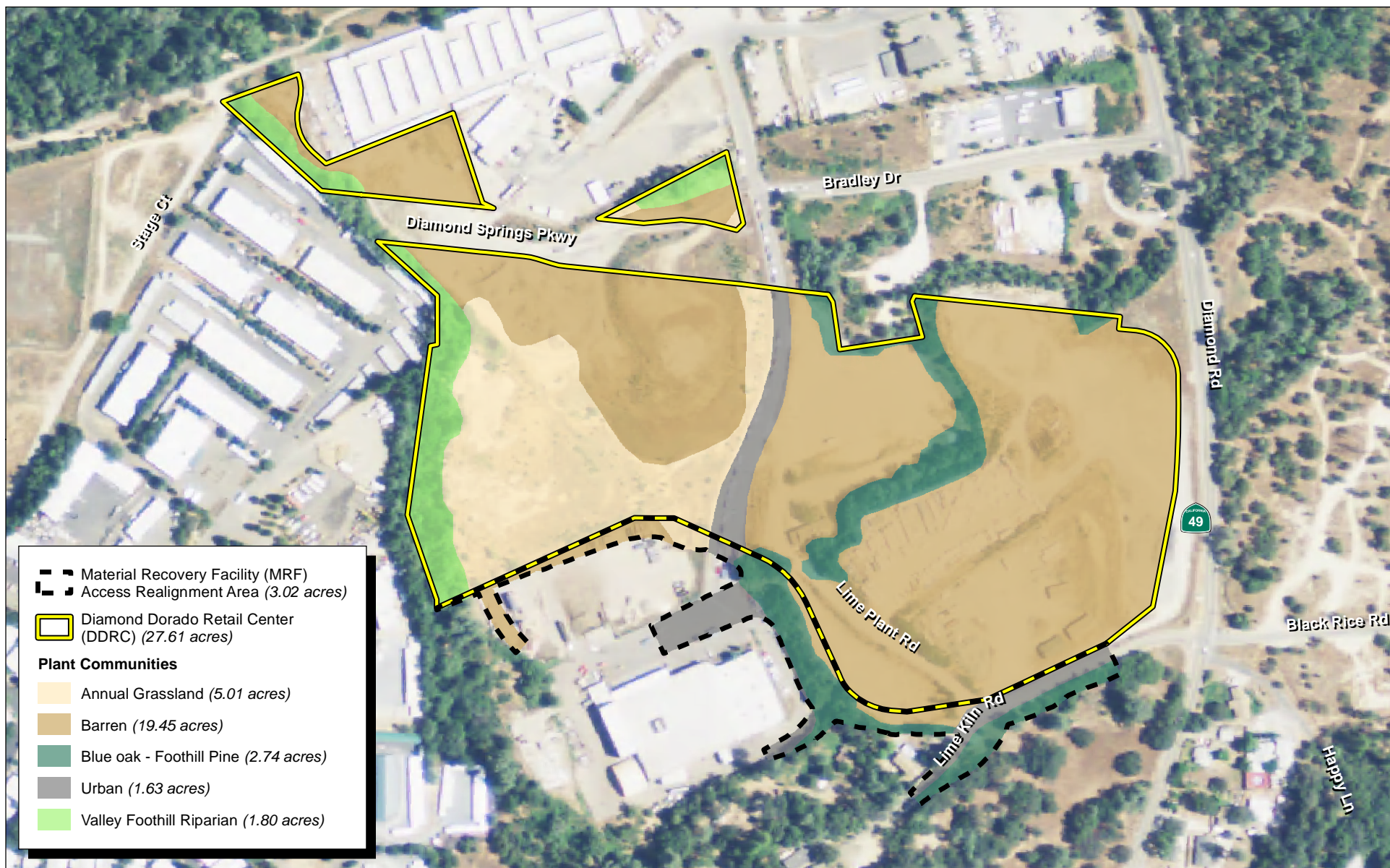
Blue oak-foothill pine habitat (2.74 acres) within the project site occurs in primarily linear areas that border urban and/or barren habitats. Overstory species observed within the project site are foothill pine (*Pinus sabiniana*) and valley oak (*Q. lobata*). Shrub species include white leaf manzanita (*Arctostaphylos viscida*), green leaf manzanita (*A. patula*), California coffeeberry (*Rhamnus californica*), coyote brush (*Baccharis pilularis*), Scotch broom (*Cytisus scoparius*), and Himalayan blackberry (*Rubus discolor*).

Valley Foothill Riparian

Valley foothill riparian habitat (1.8 acres) within the project site is associated with a drainage that borders the project site to the west. Overstory species include Fremont cottonwood (*Populus fremontii*), valley oak, arroyo willow (*Salix lasiolepis*), and black willow (*S. gooddingii*). Shrub species observed include coyote brush, Himalayan blackberry, giant reed (*Arundo donax*), coffeeberry, snowberry (*Symphoricarpos mollis*), poison oak (*Toxicodendron diversilobum*), and St. John's wort (*Hypericum perforatum*). Other species include rush (*Juncus* sp.), tall annual willow-herb, and sheep sorrel (*Rumex acetosella*).

Annual Grassland

Annual grassland (5.01 acres) occurs mainly in the western half of the project site. This area is highly disturbed by past mining activities; the topography is uneven and native soils appear to have been removed. As a result of past disturbance, this habitat is sparsely vegetated by non-native, ruderal plant species. Species observed in these areas include clover (*Trifolium* sp.), vetch (*Vicia* sp.), narrow-leaf plantain (*Plantago lanceolata*), curly dock (*Rumex crispus*), vinegar weed (*Trichostema lanceolatum*), Fitch's tarweed (*Hemizonia fitchii*), burr clover (*Medicago polymorpha*), woolly mullein (*Verbascum thapsus*), canary grass (*Phalaris* sp.), dog tail grass (*Cynosurus echinatus*), white sweet clover (*Melilotus alba*), Spanish lotus (*Lotus purshianus*), bird's-foot trefoil (*Lotus corniculatus*), prickly lettuce (*Lactuca serriola*), and elegant madia (*Madia elegans*). Small ponded inclusions within this habitat support narrow-leaf cattail (*Typha angustifolia*), nut sedge (*Cyperus eragrostis*), hyssop loosestrife (*Lythrum hyssopifolium*), and barnyard grass (*Echinochloa crus-galli*).



Urban

Urban habitat (1.63 acres) includes those areas paved and developed for retail, industrial, or residential uses.

Barren

Barren habitat (19.45) includes rocky, gravelly, or sandy substrates that support little to no vegetation. There are several areas considered barren within the project site. The largest area is the southeast, and is bordered to the east by State Route 49 (SR-49) and to the south by Lime Kiln Road. Two additional areas occur in the west, one of which is a large, flat-topped spoils pile, which is only sparsely vegetated.

Waters of the U.S., Including Wetlands

Federally Jurisdictional Features

The project site is located within the west-central portion of the approximately 7,950-acre Ringold Creek watershed-planning unit (Calwater ID 5144.310203), which is part of the larger Weber Creek Sub- Hydrologic Area (Calwater 2004). Weber Creek is the principal drainage feature within the project vicinity. Weber Creek flows west-northwest appropriately 12 miles prior to discharging into the South Fork of the American River Watershed (Hydrologic Unit 18020129). Weber Creek is a combination of step-pool and cascade alluvial-channel morphologies (Montgomery and Buffington 1998) and drains a total watershed area of approximately 97 square miles (MBA 2008b).

A jurisdictional delineation of waters of the U.S., including wetlands, was conducted throughout the project study area on December 13, 2007, and on January 10 and 11, 2008 (MBA 2008b). The delineation of waters of the U.S. identified three features that are under the jurisdiction of the United States Army Corps of Engineers (USACE). These include two ephemeral drainages and one seasonal wetland. These features together exhibit a “significant nexus” to Weber Creek, a Traditionally Navigable Water (TNW).

Table 4.3-1 below provides a summary of all federally jurisdictional features and wetlands delineated within the project study area. A map showing the locations of all delineation features is provided in Exhibit 4.3-2.

Table 4.3-1: Federally Jurisdictional Features and Wetlands in the Project Study Area

Federally Jurisdictional Features	Total Acreage
Drainages	
Ephemeral Drainage 1 (ED1)	0.067 acre (966 linear feet)
Tributary to ED1 (ED1A)	0.008 acre (169 linear feet)
Wetlands	
Seasonal Wetland 1 (SW1)	0.066 acre
Total Acreage, Federally Jurisdictional Features	0.141 acre (1,135 linear feet)
Source: MBA, 2008b	

Federally Jurisdictional Features (Waters of the U.S., Including Wetlands)

The USACE asserts jurisdiction over waters that are presently used, have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Other waters that are generally jurisdictional include interstate waters and wetlands; intrastate waters whose degradation or destruction could affect interstate or foreign commerce; and impoundments of, tributaries of, and wetlands adjacent to waters of the U.S.

Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. They include swamps, marshes, bogs, and similar areas (33 CFR Part 328.3(b)). The following is a brief discussion of the jurisdictional features described within the project site. As such, these features are subject to regulation by the USACE. Total acreage of USACE jurisdictional features is 0.141 acre (1,135 linear feet). Impacts to any jurisdictional feature are considered potentially significant impacts.

Ephemeral Drainage 1

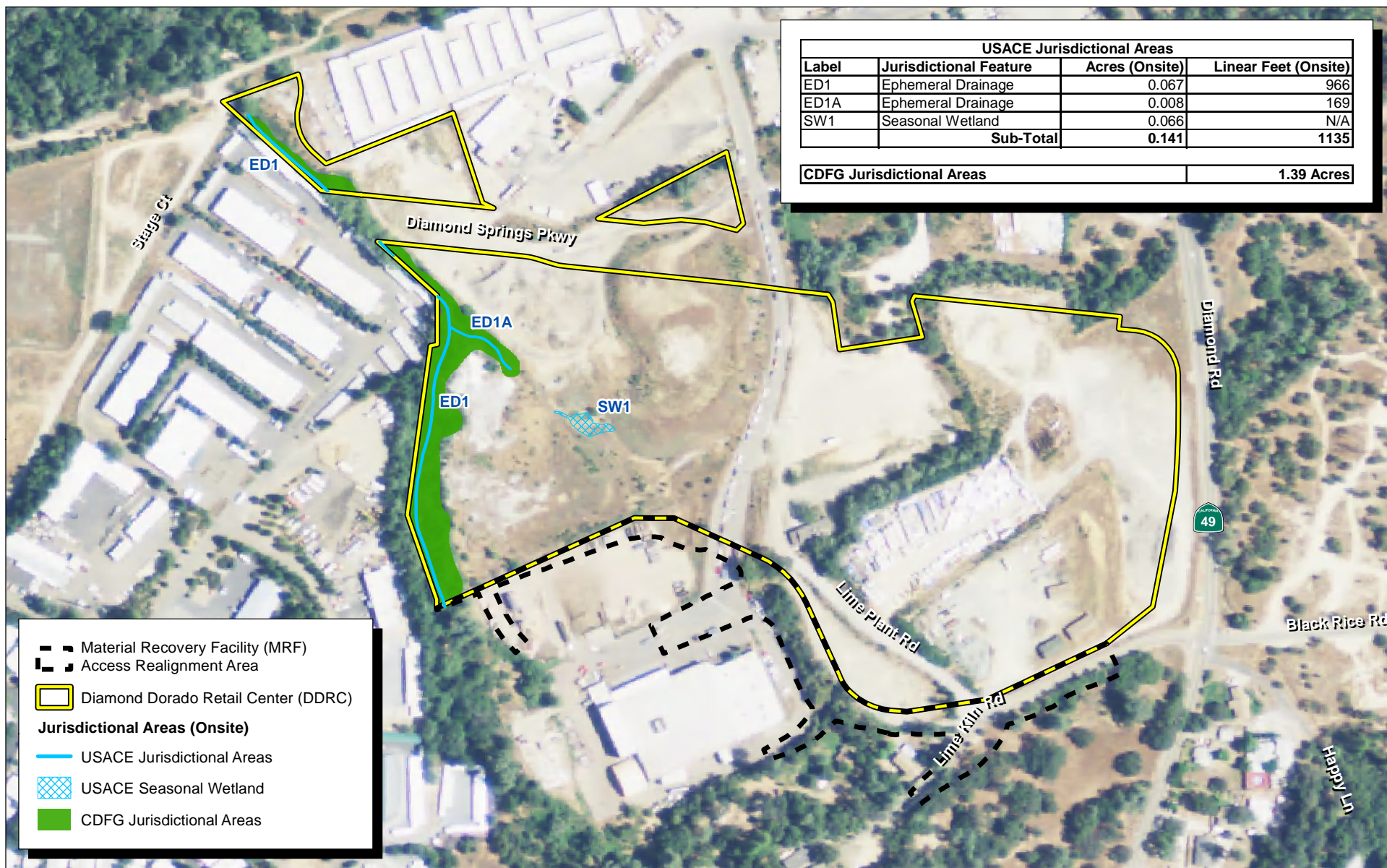
Ephemeral Drainage 1 (ED1) is a Relatively Permanent Water (RPW) that originates just south of the southwestern corner of the project site (Exhibit 4.3-2). The majority of flows enter ED1 through stormwater drainage systems that initiate at neighboring industrial and commercial developments. Stormwater and nuisance flows from these developments are channeled into onsite systems that discharge into ED1 via PVC pipes extending into the bank several feet above the ordinary high water mark.

In addition to these channeled sources of stormwater, ED1 also receives surface flows from the western half of the project site, which is drained by ED1A, tributary to ED1. Surface flows enter ED1A via an upland swale that flows from southeast to northwest through a small seasonal wetland (SW1) and captures surface flows from the surrounding uplands.

ED1 is an RPW that exhibits a “significant nexus” to Weber Creek, a TNW, and is therefore under the jurisdiction of the USACE and not subject to significant nexus evaluation under the Rapanos Guidance. USACE jurisdictional area within ED1, including ED1A, is 0.075 acre (1,135 linear feet).

Seasonal Wetland 1

Seasonal Wetland 1 (SW1) is in the central portion of the western half of the project site (Exhibit 4.3-2). Water enters SW1 from the southwest via an upland swale, and continues north through an upland swale. It is located approximately 215 feet upslope of ED1A, tributary to ED1. SW1 was dry during the December 13, 2007 field assessment but was ponded during the second field assessment on January 11, 2008. Dominant plants in this feature include Fremont cottonwood (*Populus fremontii*) saplings, cattail (*Typha latifolia*), nutsedge (*Cyperus eragrostis*), and sheep sorrel (*Rumex acetosella*). USACE jurisdictional area within SW1 is 0.036 acre.



Source: CTA Engineering & Surveying (2010) & NAIP for El Dorado County (2009), MBA (2008, 2010).



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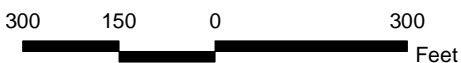


Exhibit 4.3-2 Wetlands

Waters of the State

In the public interest of protection and conservation of fish and wildlife resources of the State, Fish and Game Code Section 1602 requires any person, state or local governmental agency, or public utility to notify the CDFG before beginning any activity that will do one or more of the following: (1) substantially obstruct or divert the natural flow of a river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. CDFG's jurisdiction includes ephemeral, intermittent, and perennial watercourses, including dry washes, characterized by:

1. The presence of hydrophytic vegetation.
2. The location of definable bed and banks.
3. The presence of existing fish or wildlife resources.

Furthermore, CDFG jurisdiction is often extended to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that function as part of the riparian system. Historic court cases have further extended CDFG jurisdiction to include watercourses that seemingly disappear, but re-emerge elsewhere. Under the CDFG definition, a watercourse need not exhibit evidence of an ordinary high water mark to be claimed as jurisdictional. However, CDFG does not regulate isolated wetlands, that is, those that are not associated with a river, stream, or lake. Total acreage of CDFG jurisdictional features within the project site is 1.39 acres (Exhibit 4.3-2).

Special-Status Species

Special-status species are those plants and animals that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by federal, state, or other agencies as deserving special consideration. Some of these species receive specific legal protection pursuant to federal or state endangered species legislation. Others lack such legal protection, but have been characterized as "sensitive" based on adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. These species are referred to collectively as "special-status species" in this EIR, following a convention that has developed in practice but has no official sanction. The various categories encompassed by the term, and the legal status of each, are discussed later in this section under Section 4.3.4, Regulatory Framework.

For the purposes of this EIR, special-status species are those species:

- Listed as threatened or endangered under the Federal Endangered Species Act (ESA) and those species formally proposed or candidates for listing.

- Listed as threatened or endangered under California Endangered Species Act (CESA) or candidates for listing.
- Designated as endangered or rare pursuant to California Fish and Game Code (Section 1901).
- Designated as fully protected pursuant to California Fish and Game Code (Sections 3511, 4700, and 5050).
- Designated as a Species of Special Concern by California Department of Fish and Game (CDFG).
- Plants listed as rare under the California Native Plant Protection Act or considered by the California Native Plant Society (CNPS) as List 1A, 1B, or 2 species.

Methodology

Prior to conducting the field survey of the project site, the following information sources were reviewed:

- The Placerville, California USGS 7.5-minute topographic quadrangle (1973)
- Aerial photography of the project site (Google Earth 2007)
- A Natural Resource Conservation Service (NRCS) soils map of the project site (Soil Survey Staff undated)
- California Department of Fish and Game (CDFG) California Natural Diversity Data Base (CNDDDB) records for the Placerville, California 7.5-minute topographic quadrangle and the surrounding eight quadrangles (CNDDDB 2007)
- CDFG California Wildlife Habitat Relationship System (CWHR) (CDFG 2005)
- United States Fish and Wildlife Service (USFWS) list of endangered and threatened species that may occur, or be affected by the Project, in the Placerville, California quadrangle (USFWS 2007) (MBA 2008a)
- The California Native Plant Society (CNPS) online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2007) (MBA 2008a).
- Pertinent literature including: the Jepson Manual, Higher Plants of California
- Hickman 1993; Amphibian and Reptile Species of Special Concern in California (Jennings and Hayes 1994); California Birds: Their Status and Distribution (Small 1994); Bird Species of Special Concern in California (Remsen 1978); and Mammalian Species of Special Concern in California (Williams 1986)

In addition, existing technical studies prepared for the Project were reviewed and their results were incorporated into this document. These documents include the following:

- Biological Resources Assessment Report for the Diamond Dorado Retail Center Project, El Dorado County, California (MBA 2008a)
- Delineation of Jurisdictional Waters of the U.S., Including Wetlands, Diamond Dorado Retail Center Project, Missouri Flat Area of Unincorporated, El Dorado County, California (MBA 2008b)
- Draft Environmental Impact Report for the Diamond Springs Parkway Project, El Dorado County, California (MBA 2010)

MBA biologists conducted the field assessments on October 15 and 16, 2007. The project site was surveyed by walking meandering transects. The assessment included describing the vegetation communities present (Mayer and Laudenslayer 1988); identifying common plant and wildlife species observed; determining the potential presence of any special habitat features, such as waters of the U.S. or state, including wetlands; and identifying any linkages within the project site to important adjacent wildlife habitats. Habitat types were assessed and evaluated for their potential to support special-status plant and wildlife species and any other sensitive biological resources. Trails identified as potential wildlife movement corridors were documented.

An additional assessment of aquatic habitats was conducted by MBA biologists in conjunction with a wetland delineation on January 10 and 11, 2008. The purpose of this additional assessment was to determine whether aquatic habitats within the project site were suitable for special-status amphibian species, particularly red-legged frog (*Rana draytonii*).

A jurisdictional delineation was conducted in accordance with regulations set forth in 33 CFR part 328 and the USACE guidance documents referenced below:

- USACE Wetlands Research Program Technical Report Y-87-1 (on-line edition), Wetlands Delineation Manual, Environmental Laboratory, 1987 (Wetland Manual)
- USACE Minimum Standards for Acceptance of Preliminary Wetlands Delineations, November 30, 2001 (Minimum Standards)
- USACE Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, December 2006 (Arid West Supplement)
- USACE Jurisdictional Determination Form Instructional Guidebook, May 30, 2007 (JD Form Guidebook)
- Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States* and *Carabell v. United States* (June 5, 2007) (Rapanos Guidance)

Prior to the field visit, an aerial photograph of the site was procured and compared with the Placerville, California, U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map to

identify drainage features within the site, as indicated from topographic changes or visible drainage patterns. The United States Department of Agriculture (USDA) Soil Survey Map was reviewed to identify all soil series that occur on the site.

Special-Status Plant Species

Several regionally occurring species were determined not to have potential to occur within the project site, either because the distribution of the species does not extend into the project site vicinity or because the habitat and/or microsite conditions (e.g., serpentine soils, mesic sites) required by the species are not present.

Based upon results of the species review, there are five special-status plant species with potential to occur within the project site. Typically, focused surveys are required for federal- and state-listed threatened or endangered plant species that have a moderate to high potential to occur within the project site. The five sensitive plant species that potential occur within the project site all have a low potential to occur, and none of the plant species are federally or state-listed as threatened or endangered.

Special-Status Wildlife Species

The special-status wildlife species considered for review in this document are included in a table provided in Appendix D, Biological Resources Assessment (MBA 2008a). This list was compiled from the USFWS list and query results from CNDDDB and California Wildlife Habitat Relationship System (CWHR). CWHR is a predictive model that lists species likely to occur in a given location under certain habitat conditions. It also predicts the suitability of those conditions for reproduction, cover, and feeding for each modeled species. Information input into the model for this Project includes location (El Dorado County) and habitat type (blue oak-foothill pine). CWHR does not include any information on plants, fish, invertebrates, or rare natural communities.

Several regionally occurring species were determined not to have potential to occur within the project site, either because the distribution of the species does not extend into the project site vicinity or because the habitat or habitat elements (e.g., caves, tall snags) required by the species are not present. Based upon results of the species review, there are 10 special-status wildlife species with potential to occur within the Project. (The Biological Resource Assessment completed for the Proposed Project lists 12 special-status wildlife species with potential to occur within the Project. However, since the completion of the Assessment in 2008, two species, the sharp-shinned hawk and Cooper's hawk, have been removed from the qualifying list of special-status species.) Table 2 of Appendix D lists these species, their regulatory status, general habitat requirements, and the period during which they are most identifiable (MBA 2008a).

Typically, focused surveys are required for federal and state listed threatened or endangered wildlife species that have a moderate to high potential to occur within the project site. There are no wildlife species with a moderate to high potential to occur within the project site that are federally or state

listed as threatened or endangered. The valley elderberry longhorn beetle (*Desmocerus californicus*), has a low potential to occur onsite, due to a lack of elderberry shrubs within the project site. This species has been recorded to occur within 5 miles of the project site but is not likely to occur onsite. In addition, this species was scheduled to be de-listed in 2009, but USFWS has not completed the delisting process.

Of the nine remaining special-status species potentially occurring with the project site, only eight have a moderate to high potential to occur within the project site. Two of these species, white-tailed kite (*Elanus leucurus*) and ringtail (*Bassariscus astutus*), are listed as California fully protected species. The remaining species are California Species of Concern and only the silver-haired bat (*Lasionycteris noctivagans*) has been recorded to occur within 5 miles of the project site (Exhibit 4.3-3). Based on the limited amount of suitable habitat within the project site, California Species of Concern are not expected to be in the vicinity of the Proposed Project.

Jurisdictional Drainage Features

Jurisdictional delineation fieldwork was conducted by qualified MBA regulatory specialists on December 13, 2007 and on January 10 and 11, 2008. Data was collected using a Trimble ProXH Global Positioning System (GPS) unit capable of sub-foot accuracy, as well as mapping directly onto an aerial photograph. Other tools used included a 30-meter tape measure, a shovel, a Munsell color chart, a digital camera, and pin flags.

All surveys were conducted on foot. Potential jurisdictional features were systematically inspected to record existing conditions and to determine the jurisdictional limits. The site was carefully assessed for surface flow indicators (presence of hydrophytic vegetation, staining, cracked soil, ponding, etc). The apparent flow regimes and corresponding hydrogeomorphic features were subsequently identified. In non-wetland areas, the lateral extent of USACE jurisdiction was measured at the Ordinary High Water Mark. Where appropriate, multiple measurements were recorded at various representative locations along the length of the feature.

Potential wetland areas were assessed to the outer reach of the applicable (hydrophytic) vegetative community or (where vegetation was absent/disturbed) to the natural topographical rim of the depressional feature (whichever was greater). Features previously indicated on aerial photographs (dark/saturated areas, associated riparian vegetation, etc.) were field verified during the site visit. Plant species for each vegetative community were identified and given an indicator status as prescribed in the National List of Plant Species That Occur in Wetlands: 1988 National Summary (Reed 1988). All collected data was recorded on wetland data forms and evaluated using the 2006 USACE Arid West Regional Guidance.

Width and length measurements were entered into Geographical Information System (GIS) ArcView software to identify the location and dimensions of jurisdictional areas. The ArcView application was

then used to compute federal jurisdiction in acres. Acreage computations were verified using a 200-scale aerial photograph and field data.

Wildlife and Movement Corridors

The project site was assessed for wildlife and movement corridors during the October 15 and 16, 2007 field assessment. This was done by observation of species present and signs for any movement through the area that could be documented. The project site was assessed to determine if there were constructions or corridors that would be essential for local species.

4.3.3 - Regulatory Framework

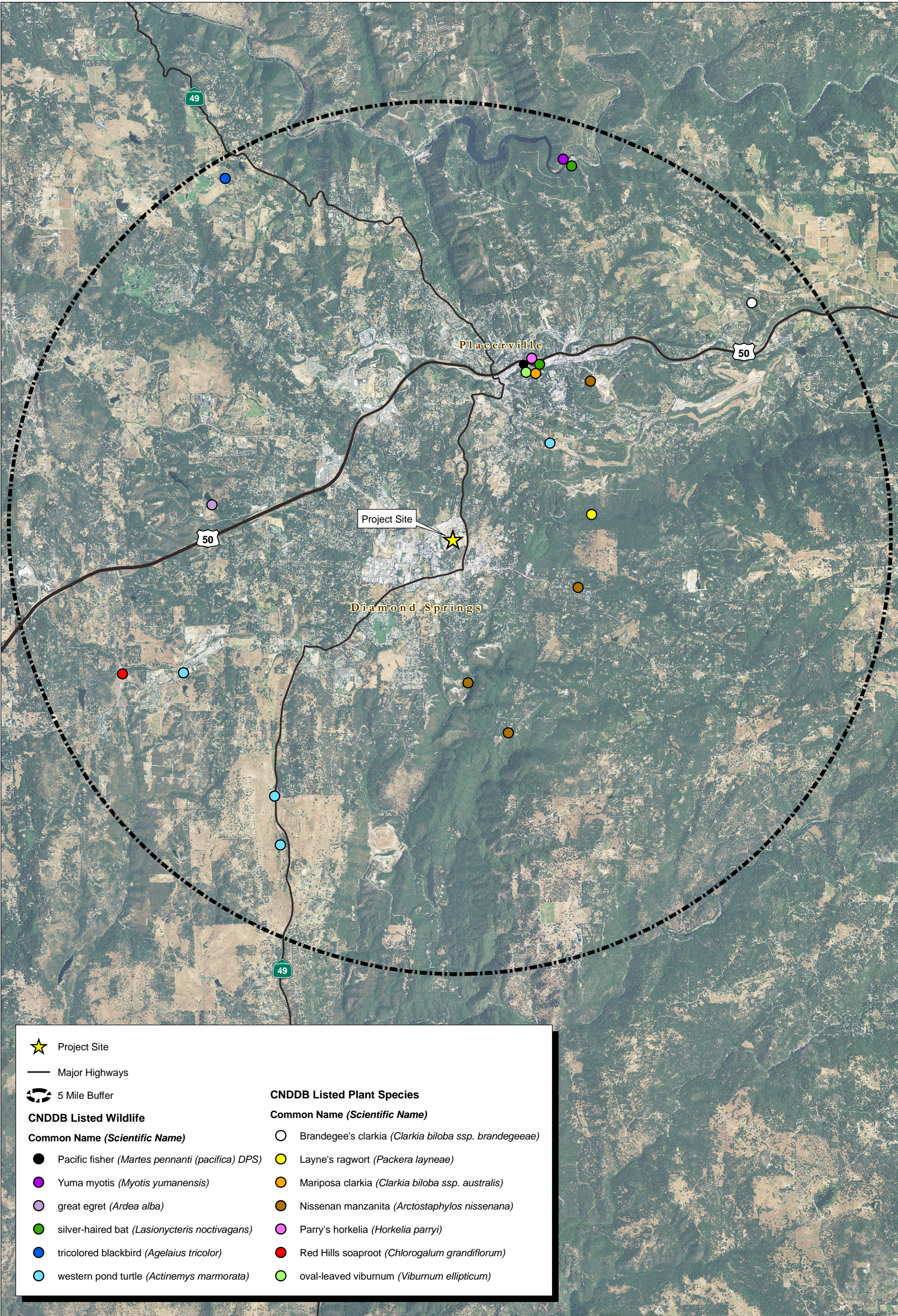
Federal

Endangered Species Act

The Endangered Species Act (ESA) of 1973 establishes a framework for protecting and facilitating the recovery of threatened and endangered populations of animal and plant species. Under the ESA, the Secretary of the Interior is required to list species of animals and plants that are both threatened and endangered, a task that is delegated to the USFWS and the National Marine Fisheries Service (NMFS). A species can become threatened or endangered as a result of the following factors:

- Present or threatened destruction
- Modification or curtailment of its habitat range
- Over-utilization for commercial recreation, scientific, or educational purposes
- Disease or predation
- Inadequacy of existing statutory mechanisms
- Other natural or human-made factors affecting its continued existence

Section 3 of the Endangered Species Act (ESA) defines an endangered species as any species or subspecies of fish, wildlife, or plants “in danger of extinction throughout all or a significant portion of its range.” A threatened species is defined as any species or subspecies “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” Designated endangered and threatened species, as listed through publication of a final rule in the Federal Register, are fully protected from a “take” without an incidental take permit administered by the USFWS under Section 10 of the ESA. “Take” is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap capture, or collect, or to attempt to engage in any such conduct (50 CFR 17.3). The term “harm” in the definition of take in the Act means an action that actually kills or injures wildlife. Such action may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 CFR 17.3).



Source: NAIP for El Dorado County (2009), CDFG CNDDDB data (March 2010).



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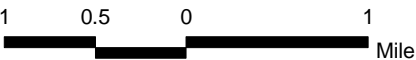


Exhibit 4.3-3
Recorded Occurrences of Special-Status
Species within 5 Miles of the Project

The term “harass” in the definition of take means an intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, which include, but are not limited to, breeding, feeding, or sheltering (50 CFR 17.3). Proposed endangered or threatened species are those for which a proposed regulation, but not a final rule, has been published in the Federal Register.

Section 7 of the ESA requires that federal agencies ensure that their actions are not likely to jeopardize the continued existence of a listed species, or destroy or adversely modify its critical habitat. This obligation requires federal agencies to consult with the USFWS or the NMFS on any actions (issuing permits including Section 404 permits, issuing licenses, providing federal funding) that may affect listed species to ensure that reasonable and prudent measures will be undertaken to mitigate impacts on listed species. Consultation with USFWS or NMFS can be either formal or informal, depending on the action’s likelihood of adversely affecting listed species or critical habitat. Once a formal consultation is initiated, USFWS or NMFS will issue a Biological Opinion (either a “jeopardy” or a “no jeopardy” opinion) indicating whether the proposed agency action will or will not jeopardize the continued existence of a listed species or result in the destruction or modification of its critical habitat. A permit cannot be issued for a project with a jeopardy opinion unless the project is redesigned to lessen impacts.

In the absence of any federal involvement, as is the case of a privately funded project on private land with no federal permit, only Section 10(a) of the ESA can empower the USFWS or NMFS to authorize incidental take of a listed species provided a habitat conservation plan (HCP) is developed. To qualify for a formal Section 10(a) permit, strict conditions must be met, including a lengthy procedure involving discussions with USFWS, NMFS, and local agencies, preparation of an HCP, and a detailed Section 10(a) permit application.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA) makes it unlawful to take (kill, harm, harass, etc.) any migratory bird listed in 50 CFR 10, including their nests, eggs, or products. The MBTA protects over 800 species, including geese, ducks, shorebirds, raptors, songbirds, and many relatively common species. It was originally drafted to put an end to the commercial trade in birds and their feathers that, by the early years of the 20th century, had wreaked havoc on the populations of many native bird species. The MBTA codifies the United States’ commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Each of the conventions protect selected species of birds that are common to both countries (i.e., they occur in both countries at some point during their annual life cycle). If a proposed project requires removal of any trees, shrubs, or any other potential nesting habitat, the MBTA requires that such removal be conducted outside the avian nesting season, which is generally between early February and late August.

State***California Endangered Species Act***

The California Endangered Species Act (CESA), signed into law in 1984, declares that deserving plant or animal species will be given protection by the State because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. The CESA established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats. Under state law, the California Fish and Game Commission may formally designate plant and animal species rare, threatened, or endangered by official listing. Listed species are generally given greater attention during the land use planning process by local governments, public agencies, and landowners than are species that have not been listed.

CESA prohibits the take of any species that the California Fish and Game Commission determines to be an endangered species or a threatened species. CESA defines a take as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The CDFG enforces CESA, which authorizes that take of a plant or wildlife species listed as endangered or threatened under ESA and CESA may occur pursuant to a federal incidental take permit issued in accordance with Section 10 of the ESA, provided CDFG is notified and certifies that the incidental take statement or incidental take permit is consistent with CESA (Fish and Game Code Section 2080.1(a)).

CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project-caused losses of listed species populations and their essential habitats.

California Environmental Quality Act - Treatment of Listed Plant and Animal Species

Both the federal and State Endangered Species Acts protect only those species formally listed as threatened or endangered (or rare, in the case of the State list). CEQA Guidelines Section 15380, however, independently defines “endangered” species of plants, fish or wildlife as those whose survival and reproduction in the wild are in immediate jeopardy, and “rare” species as those which are in such low numbers that they could become endangered if their environment worsens. Therefore, a project will normally have a significant effect on the environment if it will substantially affect a rare or endangered species or the habitat of the species. The significance of impacts to a species under CEQA must be based on analyzing actual rarity and threat of extinction despite legal status or lack thereof.

California Fish and Game Code

Sections 3503, 3503.5, and 3800 of the California Fish and Game Code prohibit the “take, possession, or destruction of birds, their nests or eggs.” Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a take.

Local

El Dorado County General Plan

On July 19, 2004, the El Dorado County Board of Supervisors adopted a new General Plan for the County. Pursuant to Government Code Section 65302, the General Plan includes a Conservation and Open Space Element, the purpose of which is to address the management, preservation, and conservation of natural resources and open space of El Dorado County. Management of the County's resources will assure the availability of those resources to future generations and the realization of their full economic potential. A list all of the applicable policies associated with the El Dorado County General Plan, with respect to biological resources, and discussion of the Project's adherence to each policy is included in Table 4.3-2 below.

Table 4.3-2: Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
Policy 7.3.1.1: Encourage the use of Best Management Practices, as identified by the Soil Conservation Service, in watershed lands as a means to prevent erosion, siltation, and flooding.	Consistent: The Project would implement the use of Best Management Practices, as identified by the Soil Conservation Service, to prevent erosion, siltation, and flooding.
Policy 7.3.2.1: Stream and lake embankments shall be protected from erosion, and streams and lakes shall be protected from excessive turbidity.	Consistent: The Project occurs adjacent to a stream. The Project would implement the use of Best Management Practices to protect streams and stream banks from erosion through the use of setbacks and silt fences, and/or other erosion control methods as necessary to prevent degradation of water quality.
Policy 7.3.3.1: For projects that would result in the discharge of material to or that may affect the function and value of river, stream, lake, pond, or wetland features, the application shall include a delineation of all such features.	Consistent: The Project may result in discharge of material into waters or wetlands. A jurisdictional delineation was conducted for the project site resulting in four USACE jurisdictional features onsite. The delineation was conducted using the USACE Wetland Delineation Manual (MBA 2008b) (Appendix G).
Policy 7.3.3.4: The Zoning Ordinance shall be amended to provide buffers and special setbacks for the protection of riparian areas and wetlands. The County shall encourage the incorporation of protected areas into conservation easements or natural resource protection areas. Exceptions to riparian and wetland buffer and setback requirements shall be provided to permit necessary road and bridge repair and construction, trail construction, and other recreational access structures such as docks and piers, or where such buffers deny reasonable use of the property, but only when appropriate mitigation measures and Best Management Practices are incorporated into the project. Exceptions shall also be provided for horticultural and grazing activities on agriculturally zoned lands that utilize "best management practices (BMPs)" as recommended by the County Agricultural Commission and adopted by the Board of Supervisors.	Consistent: The El Dorado County GP allows for the approving authority to reduce wetland setbacks for discretionary projects with appropriate findings. The El Dorado County Zoning Ordinance has not yet been updated to provide specific buffers and setbacks for the protection of riparian areas and wetlands, Therefore, the County's Interim Interpretive Guidelines for Policy 7.3.3.4 apply. The Project would remove up to 1.39 acres of CDFG jurisdictional wetland habitat and up to 0.141 acre of USACE jurisdictional areas (including the ephemeral drainages and seasonal wetland). These USACE and CDFG jurisdictional features consist of fragmented habitat and are of marginal quality. Preservation or avoidance of the seasonal wetland and portions of the ephemeral drainage are not practicable in coordination with the Proposed Project.

Table 4.3-2 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
<p>Until standards for buffers and special setbacks are established in the Zoning Ordinance, the County shall apply a minimum setback of 100 feet from all perennial streams, rivers, lakes, and 50 feet from intermittent streams and wetlands. These interim standards may be modified in a particular instance if more detailed information relating to slope, soil stability, vegetation, habitat, or other site- or project-specific conditions supplied as part of the review for a specific project demonstrates that a different setback is necessary or would be sufficient to protect the particular riparian area at issue.</p> <p>For projects where the County allows an exception to wetland and riparian buffers, development in or immediately adjacent to such features shall be planned so that impacts on the resources are minimized. If avoidance and minimization are not feasible, the County shall make findings, based on documentation provided by the project proponent, that avoidance and minimization are infeasible.</p>	<p>The marginal quality of the fragmented habitat coupled with the implementation of Mitigation Measures BIO-2a through BIO-2c provide the approving authority adequate findings to reduce wetland setbacks for the Proposed Project. Mitigation Measures BIO-2a through BIO-2c require the Project applicant to obtain USACE and CDFG permits to reduce potential impacts. Areas that cannot be avoided would be restored, or if restoration onsite is not possible, mitigation credits or restoration at other areas would be completed.</p>
<p>Policy 7.3.3.5: Rivers, streams, lakes and ponds, and wetlands shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site while disturbance to the resource is avoided or minimized and fragmentation is limited.</p>	<p>Consistent: The Project would impact a seasonal wetland and ephemeral drainage. Portions of the ephemeral drainage will be retained to the extent feasible (refer to Exhibit 4.3-2, Wetlands). However, portions of the ephemeral drainage and the single seasonal wetland would be removed. Accordingly, required USACE and CDFG permits would be established to reduce impacts and result in no net loss of wetlands. Areas that can be avoided would be restored, or if restoration onsite is not possible, mitigation credits or restoration at other areas will be completed. Mitigation Measure BIO-2a would ensure these mitigations are implemented.</p>
<p>Policy 7.3.4.1: Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.</p>	<p>Consistent: The Project would impact a seasonal wetland and ephemeral drainage. The Project would require application of a USACE 404 permit and a CDFG Streambed Alteration Agreement to address impacts to natural watercourses. The permit requirements will include restoration and/or enhancements to the existing drainages. If not possible, the permits will require offsite mitigation according to a formula established in the permits.</p>
<p>Policy 7.3.4.2: Modification of natural streambeds and flow shall be regulated to ensure that adequate mitigation measures are utilized.</p>	<p>Consistent: The Project may result in modification to natural streambeds. Project application of a USACE 404 permit and a CDFG Streambed Alteration Agreement would address impacts to natural streambeds and will prescribe mitigation measures to address project impacts.</p>

Table 4.3-2 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
<p>Policy 7.4.1.5: Species, habitat, and natural community preservation/conservation strategies shall be prepared to protect special status plant and animal species and natural communities and habitats when discretionary development is proposed on lands with such resources unless it is determined that those resources exist, and either are or can be protected, on public lands or private Natural Resource lands.</p>	<p>Consistent: The Project would result in impacts to oak trees, which are protected under the County of El Dorado, and habitat for bird species protected under the MBTA. Project implementation of Mitigation Measure BIO-1 and Mitigation Measures BIO-3a through BIO-3c will protect sensitive species and natural habitat that occurs onsite.</p>
<p>Policy 7.4.1.6: All development projects involving discretionary review shall be designed to avoid disturbance or fragmentation of important habitats to the extent reasonably feasible. Where avoidance is not possible, the development shall be required to fully mitigate the effects of important habitat loss and fragmentation. Mitigation shall be defined in the Integrated Natural Resources Management Plan (INRMP) (see Policy 7.4.2.8 and Implementation Measure CO-M).</p> <p>The County Agricultural Commission, Plant and Wildlife Technical Advisory Committee, representatives of the agricultural community, academia, and other stakeholders shall be involved and consulted in defining the important habitats of the County and in the creation and implementation of the INRMP.</p>	<p>Consistent: The Project is in an area that has been previously disturbed and exists in a fragmented state. As such, habitat fragmentation that could occur as a result of the Project would be minimal. Habitat loss and fragmentation of riparian habitat have been addressed in this Draft EIR, and mitigation has been prescribed requiring applications for a USACE 404 permit and CDFG Streambed Alteration Agreement.</p>
<p>Policy 7.4.2.1 : To the extent feasible in light of other General Plan policies and to the extent permitted by State law, the County of El Dorado will protect identified critical fish and wildlife habitat, as identified on the Important Biological Resources Map maintained at the Planning Department, through any of the following techniques: utilization of open space, Natural Resource land use designation, clustering, large lot design, setbacks, etc.</p>	<p>Consistent: Not applicable; the project site does not support critical habitat for sensitive species, nor is it located within an Important Biological Corridor as identified by the County.</p>
<p>Policy 7.4.2.4: Establish and manage wildlife habitat corridors within public parks and natural resource protection areas to allow for wildlife use. Recreational uses within these areas shall be limited to those activities that do not require grading or vegetation removal.</p>	<p>Consistent: Not applicable; the Project does not occur within public recreational use areas.</p>
<p>Policy 7.4.2.5: Setbacks from all rivers, streams, and lakes shall be included in the Zoning Ordinance for all ministerial and discretionary development projects.</p>	<p>Consistent: Although the Project would impact a seasonal wetland and ephemeral drainage, the existing riparian habitat is already fragmented and marginal. Because of the marginal quality of the habitat, the regulatory authority may authorize minimal setbacks. The Project would require application of a USACE 404 permit and a CDFG Streambed Alteration Agreement to address impacts to natural watercourses. The permit requirements</p>

Table 4.3-2 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination														
	will include restoration and/or enhancements to the existing drainages. If not possible, the permits will require offsite mitigation according to a formula established in the permits.														
<p>Policy 7.4.4.2: Through the review of discretionary projects, the County, consistent with any limitations imposed by State law, shall encourage the protection, planting, restoration, and regeneration of native trees in new developments and within existing communities.</p>	<p>Consistent: The Project would result in the loss of oak woodland canopy. Implementation of Mitigation Measures BIO-3a through BIO-3c would ensure protection of native trees considered sensitive by El Dorado County, in accordance with the County's Oak Woodland Management Plan.</p>														
<p>Policy 7.4.4.4: For all new development projects (not including agricultural cultivation and actions pursuant to an approved Fire Safe Plan necessary to protect existing structures, both of which are exempt from this policy) that would result in soil disturbance on parcels that (1) are over an acre and have at least 1 percent total canopy cover or (2) are less than an acre and have at least 10 percent total canopy cover by woodlands habitats as defined in this General Plan and determined from base line aerial photography or by site survey performed by a qualified biologist or licensed arborist, the County shall require one of two mitigation options: (1) the project applicant shall adhere to the tree canopy retention and replacement standards described below; or (2) the project applicant shall contribute to the County's Integrated Natural Resources Management Plan (INRMP) conservation fund described in Policy 7.4.2.8.</p> <p>Option A The County shall apply the following tree canopy retention standards:</p> <table border="1" data-bbox="214 1356 764 1694"> <thead> <tr> <th>Percent Existing Canopy Cover</th><th>Canopy Cover to be Retained</th></tr> </thead> <tbody> <tr> <td>80-100</td><td>60% of existing canopy</td></tr> <tr> <td>60-79</td><td>70% of existing canopy</td></tr> <tr> <td>40-59</td><td>80% of existing canopy</td></tr> <tr> <td>20-39</td><td>85% of existing canopy</td></tr> <tr> <td>10-19</td><td>90% of existing canopy</td></tr> <tr> <td>1-9 for parcels >1 acre</td><td>90% of existing canopy</td></tr> </tbody> </table> <p>Under Option A, the project applicant shall also replace woodland habitat removed at 1:1 ratio. Impacts on woodland habitat and mitigation requirements shall be addressed in a Biological Resources Study and Important Habitat Mitigation Plan as described in Policy 7.4.2.8. Woodland</p>	Percent Existing Canopy Cover	Canopy Cover to be Retained	80-100	60% of existing canopy	60-79	70% of existing canopy	40-59	80% of existing canopy	20-39	85% of existing canopy	10-19	90% of existing canopy	1-9 for parcels >1 acre	90% of existing canopy	<p>Consistent: The Project occurs on a parcel greater than 1.0 acre and has at least 1 percent canopy cover. The Project will implement Mitigation Measures BIO-3a through BIO-3c to address impacts to oak woodland habitat and determine any necessary mitigation and strategies for woodland retention or purchasing mitigation credit.</p>
Percent Existing Canopy Cover	Canopy Cover to be Retained														
80-100	60% of existing canopy														
60-79	70% of existing canopy														
40-59	80% of existing canopy														
20-39	85% of existing canopy														
10-19	90% of existing canopy														
1-9 for parcels >1 acre	90% of existing canopy														

Table 4.3-2 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
<p>replacement shall be based on a formula, developed by the County, that accounts for the number of trees and acreage affected.</p> <p>Option B The project applicant shall provide sufficient funding to the County's INRMP conservation fund, described in Policy 7.4.2.8, to fully compensate for the impact to oak woodland habitat. To compensate for fragmentation as well as habitat loss, the preservation mitigation ratio shall be 2:1 and based on the total woodland acreage onsite directly impacted by habitat loss and indirectly impacted by habitat fragmentation. The costs associated with acquisition, restoration, and management of the habitat protected shall be included in the mitigation fee. Impacts on woodland habitat and mitigation requirements shall be addressed in a Biological Resources Study and Important Habitat Mitigation Plan as described in Policy 7.4.2.8.</p>	
<p>Policy 7.4.4.5: Where existing individual or a group of oak trees are lost within a stand, a corridor of oak trees shall be retained that maintains continuity between all portions of the stand. The retained corridor shall have a tree density that is equal to the density of the stand.</p>	<p>Consistent: The Project would impact an individual or group of oak trees that occur within a stand. Through project implementation of Mitigation Measures BIO-3a through BIO-3c that address impacts to oak woodland habitat, the County and approved arborist will determine the appropriate steps for retention or purchasing mitigation credits.</p>
<p>Policy 7.4.5.1: A tree survey, preservation, and replacement plan shall be required to be filed with the County prior to issuance of a grading permit for discretionary permits on all high-density residential, multifamily residential, commercial, and industrial projects. To ensure that proposed replacement trees survive, a mitigation monitoring plan should be incorporated into discretionary projects when applicable and shall include provisions for necessary replacement of trees.</p>	<p>Consistent: The project site contains oak trees that are considered sensitive by the County. The Project will implement Mitigation Measures BIO-3a through BIO-3c to address all impacts to oak woodland habitat and provide necessary reports prior to the issuance of a grading permit. The results of the tree survey will determine the next appropriate measures to mitigate for oak impacts.</p>
<p>Policy 7.4.5.2: It shall be the policy of the County to preserve native oaks wherever feasible, through the review of all proposed development activities where such trees are present on either public or private property, while at the same time recognizing individual rights to develop private property in a reasonable manner. To ensure that oak tree loss is reduced to reasonable acceptable levels, the County shall develop and implement an Oak Tree Preservation Ordinance that includes the following components:</p> <p>A. Oak Tree Removal Permit Process. Except under special exemptions, a tree removal permit shall be required by the County for removal of any native</p>	<p>Consistent: The project site will impact oak trees that are considered sensitive by the County. To ensure oak tree loss is reduced to a level of insignificance the project will implement Mitigation Measures BIO-3a through BIO-3c in accordance with the County's Oak Woodland Management Plan.</p>

Table 4.3-2 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
<p>oak tree with a single main trunk of at least 6 inches diameter at breast height (dbh), or a multiple trunk with an aggregate of at least 10 inches dbh. Special exemptions when a tree removal permit is not needed shall include removal of trees less than 36 inches dbh on 1) lands in Williamson Act Contracts, Farmland Security Zone Programs, Timber Production Zones, Agricultural Districts, designated Agricultural Land (AL), and actions pursuant to a Fire Safe plan; 2) all single family residential lots of one acre or less that cannot be further subdivided; 3) when a native oak tree is cut down on the owner's property for the owner's personal use; and 4) when written approval has been received from the County Planning Department. In passing judgment upon tree removal permit applications, the County may impose such reasonable conditions of approval as are necessary to protect the health of existing oak trees, the public and the surrounding property, or sensitive habitats. The County Planning Department may condition any removal of native oaks upon the replacement of trees in kind. The replacement requirement shall be calculated based upon an inch for inch replacement of removed oaks. The total of replacement trees shall have a combined diameter of the tree(s) removed. Replacement trees may be planted onsite or in other areas to the satisfaction of the County Planning Department. The County may also condition any tree removal permit that would affect sensitive habitat (e.g., valley oak woodland), on preparation of a Biological Resources Study and an Important Habitat Mitigation Program as described in Policy 7.4.1.6. If an application is denied, the County shall provide written notification, including the reasons for denial, to the applicant.</p> <p>B. Tree Removal Associated with Discretionary Project. Any person desiring to remove a native oak shall provide the County with the following as part of the project application:</p> <ul style="list-style-type: none"> • A written statement by the applicant or an arborist stating the justification for the development activity, identifying how trees in the vicinity of the project or construction site will be protected and stating that all construction activity will follow approved preservation methods; • A site map plan that identifies all native oaks on the project site; and • A report by a certified arborist that provides specific information for all native oak trees on the project site. 	

Table 4.3-2 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
<p>C. (Not Applicable)</p> <p>D. Penalties. Fines will be issued to any person, firm, or corporation that is not exempt from the ordinance, who damages or destroys an oak tree without first obtaining an oak tree removal permit. Fines may be as high as three times the current market value of replacement trees as well as the cost of replacement, and/or replacement of up to three times the number of trees required by the ordinance. If oak trees are removed without a tree removal permit, the County Planning Department may choose to deny or defer approval of any application for development of that property for a period of up to 5 years. All monies received for replacement of illegally removed or damaged trees shall be deposited in the County's Integrated Natural Resources Management Plan (INRMP) conservation fund.</p>	
Source: El Dorado County General Plan, 2004; MBA, 2010.	

Oak Woodland Management Plan

El Dorado County has in place an Oak Woodland Management Plan (OWMP), finalized in May 2008 (El Dorado County 2008). The OWMP outlines the County's strategy for conservation of valuable oak woodland resources. Through the OWMP, the County identifies areas where conservation easements may be acquired from willing sellers as a means to offset and mitigate the loss and increased fragmentation of oak woodlands in other areas as a result of the implementation of the 2004 El Dorado County General Plan. Additionally, the OWMP provides guidance for voluntary conservation and management efforts by landowners and land managers. Lastly, the OWMP sets forth further guidance on General Plan Policy 7.4.4.4 Option A, which includes measures designed to encourage retention of existing oak canopy in areas planned for development.

General Plan Policy 7.4.4.4 applies to all new development projects that would result in soil disturbance on parcels that are less than or equal to 1 acre with at least 10 percent total oak woodland canopy cover, or greater than 1 acre with at least 1 percent oak woodland canopy cover. Replacement objectives of the OWMP may be achieved by (1) replacement planting onsite at a 1:1 canopy surface area ratio; (2) contributing to the County's Conservation fund at a 2:1 ratio; (3) acquiring an onsite conservation easement on oak woodlands at a 2:1 ratio; or (4) through a combination of 1, 2, and 3. The Project site has 2.8 acres of blue oak-foothill pine habitat (Exhibit 4.3-1).

4.3.4 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, biological resources impacts resulting from the implementation of the Proposed Project would be considered significant if the Project would:

- 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 Game or U.S. Fish and Wildlife Service?
- b.) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- c.) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- 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 wildlife nursery sites?
- e.) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- 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?
(Refer to Section 6.5, Effects Found Not To Be Significant.)

4.3.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Proposed Project and provides mitigation measures where appropriate. Included are construction (short-term) and operational (long-term) impacts of onsite improvements, as well as construction impacts of offsite improvements.

Effect on Species

Impact BIO-1:	The Project has the potential to impact species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service.
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Impact Analysis

Onsite Improvements

Construction of the Project has the potential to impact special-status nesting birds and bats, including long-eared owl, yellow warbler, white-tailed kite, merlin, yellow-breasted chat, loggerhead shrike,

purple martin, pallid bat, and silver-haired bat. The white-tailed kite, a fully protected species, is the only sensitive species with a high potential to occur on the project site. Other nesting raptors and migratory songbirds protected under the MBTA may also be affected should construction occur during the nesting season. Accordingly, potential impacts to nesting avian species are considered potentially significant. Implementation of Mitigation Measure BIO-1 would ensure that project construction would not result in direct or indirect disturbance to sensitive avian species, including all federally and state-protected nesting raptors and songbirds, or loss of active nests from nest abandonment.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM BIO-1 If grading or tree removal is proposed during the avian nesting season (March 1 to October 1), a focused survey for nesting migratory birds shall be conducted by a qualified biologist to identify active nests on the project study area. The survey will be conducted no less than 14 days and no more than 30 days prior to the beginning of grading or tree removal. The results of the survey will be summarized in a written report prior to the beginning of grading. If nesting birds are found during the focused survey, no grading or tree removal will occur within 250 feet of an active nest (500 feet for raptors) until the young have fledged (as determined by a qualified biologist) or until the Project applicant receives written authorization from California Department of Fish and Game (CDFG) to proceed. Construction activity may occur within the 250-foot buffer area at the discretion of the monitoring biologist. If nest trees are unavoidable, they shall be removed during the non-breeding season. If nesting white-tailed kites are found during the focused survey, no grading or tree removal will occur within 500 feet of an active nest until the young have fledged (as determined by a qualified biologist) and the Project applicant receives written authorization from CDFG to proceed. If nest trees are unavoidable, they shall be removed only during the non-breeding season.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

Construction of offsite roadway improvements may have the potential to impact special-status nesting birds, including long-eared owl, yellow warbler, white-tailed kite, merlin, yellow-breasted chat, loggerhead shrike, and purple martin. The white-tailed kite, a fully protected species, is the only sensitive species with a high potential to occur within the offsite improvement area. Other nesting raptors and migratory songbirds protected under the MBTA may be affected, should construction occur during the nesting season where roadway construction is to occur adjacent to trees.

Accordingly, potential impacts to nesting avian species are considered potentially significant. Implementation of Mitigation Measure BIO-1 would ensure that project construction would not result in direct or indirect disturbance to sensitive avian species, including all federally and state-protected nesting raptors and songbirds, or loss of active nests from nest abandonment.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure BIO-1.

Level of Significance After Mitigation

Less than significant impact.

Federally Protected Wetlands

Impact BIO-2:	The Project has the potential to impact federally protected wetlands as defined by Section 404 of the Clean Water Act.
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Impact Analysis*Onsite Improvements*

The project site contains 0.141 acre of drainage feature that are likely under the jurisdiction of the USACE. There are also 1.39 acres under the jurisdiction of the CDFG. Clearing and grading activities required for construction of the Proposed Project could result in the removal of up to 1.8 acres of valley foothill riparian habitat. Accordingly, impacts to drainage features under the jurisdiction of the USACE and CDFG are considered potentially significant. Implementation of Mitigation Measure BIO-2a would ensure project compliance with all agencies regulating assessment and mitigation of impacts to wetlands. Implementation of Mitigation Measure BIO-2b would protect water quality of avoided wetlands and other Waters of the U.S. that occur inside the project study area, as well as those that occur in proximity to the project study area, such as Weber Creek. Implementation of Mitigation Measure Bio-2c would require adequate setback and the protection of water quality for preserved seasonal and perennial drainages.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM BIO-2a Riparian habitat shall be avoided to the maximum extent feasible. Drainage features at the project site identified as jurisdictional Waters of the U. S., including wetlands, would be filled as a result of the Project and would require authorization of a Section 404 Permit from the United States Army Corps of Engineers (USACE), and a Steam Bed Alteration Agreement shall be obtained from California Department of Fish and Game (CDFG), as appropriate. Prior to initiation of any ground clearing or other

construction activities, the Project applicant shall obtain authorization of a Section 404 Permit from USACE and a CDFG Section 1602 Lake and Streambed Alteration Agreement shall be prepared and approved by both USACE and CDFG. Mitigation required for direct and indirect impacts to all areas under the jurisdiction of federal and state resource agencies shall be carried out in accordance with the conditions of the Section 404 Permit and Lake and Streambed Alteration Agreement.

MM BIO-2b As part of the permitting process, mitigation of impacts to jurisdictional Waters of the U.S., including wetlands, shall be identified and implemented, as described below. The acreage shall be replaced or rehabilitated on a “no-net-loss” basis in accordance with United States Army Corps of Engineers (USACE) regulations. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to USACE. Habitat compensation shall also be in accordance with El Dorado County which has adopted a “no-net-loss” policy under General Plan Policy 7.3.3.2; this policy allows wetland habitat compensation on- or offsite, but at a minimum 1:1 ratio. Also in accordance with General Plan Policy 7.3.3.2, a wetland study and mitigation monitoring program shall be submitted to the County and concerned state and federal agencies (e.g., USACE, California Department of Fish and Game) for review prior to permit approval.

MM BIO-2c All grading plans shall include adequate setback for preserved seasonal and perennial drainages. Measures to minimize erosion and runoff into seasonal and perennial drainages that are preserved shall also be included in all grading plans. Appropriate runoff controls such as berms, storm gates, detention basins, overflow collection areas, filtration systems, and sediment traps shall be implemented to control siltation and the potential discharge of pollutants into preserved drainages.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

In general, the offsite roadway improvement areas are abutted by unlined drainage ditches that are not hydrologically connected to natural drainages and are not likely under the jurisdiction of the USACE. Accordingly, there would be no impacts to drainage features under the jurisdiction of the USACE and CDFG.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No impact.

Local Policies or Ordinances Protecting Biological Resources

Impact BIO-3: Project implementation will conflict with local policies or ordinances protecting biological resources.

Impact Analysis*Onsite Improvements*

Construction of the Project would result in the loss of oak woodland canopy, and, therefore, is subject to the General Plan Policies 7.4.4.4, 7.4.4.5, and 7.4.5.2 governing removal of 4.3 acres of oaks and the County's Oak Woodland Management Plan (OWMP). The OWMP outlines the County's strategy for conservation of oak woodlands, and implements and provides additional guidance on General Plan Policy 7.4.4.4. Direct and indirect impacts to oak woodland canopy are considered a potentially significant impact.

Two categories of projects are covered by the OWMP: (1) parcels/projects 1 acre in size or less having at least 10 percent oak woodland canopy cover, and (2) parcels/projects greater than 1 acre in size with at least 1 percent oak woodland canopy cover. The project site is greater than 1 acre in size. To determine the percentage of oak woodland canopy cover on the project site, a qualified biologist has conducted an oak woodland survey based on aerial photography of the project site (Exhibit 4.3-4). Based on aerial photography, the 30.63-acre project site (27.61-acre DDRC site and 3.02-acre Material Recovery Facility (MRF) site combined) appears to contain approximately 4.30 acres of oak woodland. Accordingly, 14 percent of the Project contains oak woodland canopy cover subject to the OWMP. The Proposed Project, therefore, meets the criteria described in the second category of the OWMP. As such, removal of oak trees associated with construction of the Proposed Project, including Lime Kiln Road, is subject to the OWMP and the mitigation requirements set forth therein.

Actual impacts to the 4.30 acres of oak woodland canopy subject to the OWMP policies is unknown at this time. The Project is designed such that the entire site will likely require grading resulting in the removal of existing oak woodland canopy. Accordingly, for conservative purposes, it is assumed that all 4.30 acres of oak woodland canopy subject to the OWMP would be removed and require mitigation as outlined in the OWMP.

As outlined by Table 1 of the General Plan Policy 7.4.4.4, for projects containing between 10 and 19 percent of existing canopy cover that retain more than 90 percent of that canopy cover, a 1:1 mitigation ratio is required. Any canopy cover removed beyond the 90 percent threshold must be mitigated at a 1:2 ratio. Since the Proposed Project may remove the entire 4.30 acres (187,308 square feet) of canopy, it is assumed that zero percent will be retained.



Source: NAIP for El Dorado County (2009); ESRI (2008); MBA (2010).



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Exhibit 4.3-4 Oak Woodland Canopy Map

Accordingly, 10 percent (18,731 square feet) of the canopy removed would require a 1:1 mitigation ratio and 90 percent (168,577 square feet) would require a 2:1 mitigation ratio. Currently, no oak trees are proposed to be retained. Without proper mitigation, impacts would be potentially significant.

Additional mitigation is proposed to ensure that if any oak trees are preserved onsite they would be properly protected during construction activities and a mitigation monitoring plan for any oak trees replanted onsite would be implemented. Implementation of these mitigation measures would reduce potential impacts to less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM BIO-3a Prior to the issuance of grading permits, the applicant shall provide a final grading plan to El Dorado County. The final grading plan shall indicate the size and location of all onsite oak trees and will indicate which trees are to be removed or retained as a part of the Proposed Project. The applicant shall comply with the Oak Woodland Management Plan (OWMP) by mitigating for oak woodland canopy removed in accordance with either Option A (On-Site Mitigation, Replanting and Replacement), Option B (Conservation Fund In-Lieu Fee), or a combination of both options. As outlined in the OWMP, a 1:1 mitigation ratio shall be applied to the oak canopy removed that falls below the threshold in Table 1 of the El Dorado County General Plan Policy 7.4.4.4, while a 2:1 mitigation ratio shall be applied to the remaining oak canopy removed.

MM BIO-3b Any oak trees on the project site that are not removed, and any oak trees on adjacent properties that are within 200 feet of grading activity shall be protectively fenced 5 feet beyond the dripline and root zone of each tree (as determined by a certified arborist). This fence, which is meant to prevent activities that result in soil compaction beneath the canopy or over the root zone, shall be maintained until all construction activities are complete. No grading, trenching, or movement of construction equipment shall be allowed to occur within fenced areas. Protection for oak trees on slopes and hillsides will include installation of a silt fence. A silt fence shall be installed at the upslope base of the protective fence to prevent any soil drifting down over the root zone.

MM BIO-3c To ensure that proposed onsite replacement trees survive, a mitigation monitoring plan, including provisions for necessary replacement of trees, shall be incorporated into the preservation and replacement plan. Detailed performance standards shall be included to ensure that an 80 percent survival rate is achieved over a 5-year period.

Annual reports identifying planting success and monitoring efforts shall be submitted to El Dorado County Planning Services and California Department of Fish and Game. During monitoring, the following information shall be evaluated: average tree height, percent of tree cover, tree density, percent of woody shrub cover, seedling recruitment, and invasion by non-native species. Temporary irrigation equipment shall be installed to facilitate sapling survival during the first several years of growth. During the revegetation process, tree survival will be maximized by using deer screens or other maintenance measures as recommended by a certified arborist.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

Construction of offsite roadway improvements may result in the loss of oak trees, and, therefore, is subject to the General Plan and OWMP policies regarding oaks.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measures BIO-3a through BIO-3c.

Level of Significance After Mitigation

Less than significant impact.

4.4 - Cultural Resources

4.4.1 - Introduction

This section describes the existing cultural and historical resources and potential effects from project development on the site and its surrounding area that are based on the Phase I Cultural Resources Assessment, dated September 15, 2009, prepared by Michael Brandman Associates (MBA). A summary of assessment results are presented in this section. The Phase I Cultural Resource Assessment is provided in Appendix F. The Phase I Cultural Resource Assessment was completed prior to the decision against moving the Material Recovery Facility (MRF) and, therefore, includes outdated discussions of potential impacts resulting from the MRF relocation.

4.4.2 - Environmental Setting

Overview

The term “cultural resources” encompasses historic, archaeological, and paleontological resources and burial sites. Below is a brief summary of each component:

- **Historic Resources:** Historic resources are associated with the relatively recent past. In California, historic resources are typically associated with the Spanish, Mexican, and American periods in the State’s history and are generally less than 200 years old.
- **Archaeological Resources:** Archaeology is the study of prehistoric human activities and cultures. Archaeological resources are generally associated with Native American cultures.
- **Paleontological Resources:** Paleontology is the study of plant and animal fossils.
- **Burial Sites:** Burial sites are formal or informal locations where human remains, usually associated with indigenous cultures, are interred.

Cultural Setting

The following is a brief overview of the prehistoric and historic background that provides a context in which to understand the background and relevance of sites found in the general vicinity of the project study area. The project study area for the Proposed Project consists of the areas and resources that could potentially be directly or indirectly affected by the Proposed Project. For the Proposed Project, the project study area was determined to consist of the project area and the immediate surroundings (see Appendix F).

This section is not intended to be a comprehensive review of the current references and resources available; rather, it serves as a generalized overview of the cultural setting. Descriptions that are more detailed can be found in ethnographic studies, mission records, and major published sources, including Kroeber (1925), Wallace (1955), Warren (1968), Heizer (1978), Moratto (1984), and Chartkoff and Chartkoff (1984).

Prehistory

Research during the 1930s identified temporal periods in central California prehistory and provided an initial chronological sequence (Lillard and Purves 1936; Lillard et al. 1939). In 1939, Lillard noted that each cultural period led directly to the next and that influences spread from the Delta region to other regions in central California (Lillard et al. 1939). In the late 1940s and early 1950s, Beardsley documented similarities in artifacts between sites in the San Francisco Bay region and the Delta and refined his findings into a cultural model that ultimately became known as the Central California Taxonomic System (CCTS). This system proposed a uniform, linear sequence of cultural succession (Beardsley 1948 and 1954). The CCTS system was challenged by Gerow, whose work looked at radiocarbon dating to show that Early and Middle Horizon sites were not subsequent developments but, at least partially, contemporaneous (1954; 1974; Gerow with Force 1968).

To address some of the flaws in the CCTS system, Fredrickson (1973) introduced a revision that incorporated a system of spatial and cultural integrative units. Fredrickson separated cultural, temporal, and spatial units from each other and assigned them to six chronological periods: Paleo-Indian (10000 to 6000 B.C.); Lower, Middle and Upper Archaic (6000 B.C. to A.D. 500); and Lower and Upper Emergent (A.D. 500 to 1800). The suggested temporal ranges are similar to earlier horizons, which are broad cultural units that can be arranged in a temporal sequence (Moratto 1984). In addition, Fredrickson defined several patterns, which are a general way of life shared within a specific geographical region. These patterns include:

- Windmill Pattern or Early Horizon (3000 to 1000 B.C.)
- Berkeley Pattern or Middle Horizon (1000 B.C. to A.D. 500)
- Augustine Pattern or Late Horizon (A.D. 500 to historic period)

Brief descriptions of these temporal ranges and their unique characteristics follow.

Windmill Pattern or Early Horizon (3000 to 1000 B.C.)

Characterized by the Windmill Pattern, the Early Horizon was centered in the Cosumnes district of the Delta and emphasized hunting rather than gathering, as evidenced by the abundance of projectile points in relation to plant processing tools. Additionally, atlatl, dart, and spear technologies typically included stemmed projectile points of slate and chert but minimal obsidian. The large variety of projectile point types and faunal remains suggests exploitation of numerous types of terrestrial and aquatic species (Bennyhoff 1950; Ragir 1972). Burials occurred in cemeteries and intra-village graves. These burials were typically ventrally extended, although some dorsal extensions are known with a westerly orientation and a high number of grave goods. Trade networks focused on acquisition of ornamental and ceremonial objects in finished form rather than on raw material. The presence of artifacts made of exotic materials such as quartz, obsidian, and shell indicates an extensive trade network that may represent the arrival of Utian populations into central California. Also indicative of this period are rectangular Haliotis and Olivella shell beads, and charmstones that usually were perforated.

Berkeley Pattern or Middle Horizon (1000 B.C. to A.D. 500)

The Middle Horizon is characterized by the Berkeley Pattern, which displays considerable changes from the Early Horizon. This period exhibited a strong milling technology represented by minimally shaped cobble mortars and pestles, although metates and manos were still used. Dart and atlatl technologies during this period were characterized by non-stemmed projectile points made primarily of obsidian. Fredrickson (1973) suggests that the Berkeley Pattern marked the eastward expansion of Miwok groups from the San Francisco Bay Area. Compared with the Early Horizon, there is a higher proportion of grinding implements at this time, implying an emphasis on plant resources rather than on hunting. Typical burials occurred within the village with flexed positions, variable cardinal orientation, and some cremations. As noted by Lillard, the practice of spreading ground ochre over the burial was common at this time (Lillard et al. 1939). Grave goods during this period are generally sparse and typically include only utilitarian items and a few ornamental objects. However, objects such as charmstones, quartz crystals, and bone whistles occasionally were present, which suggest the religious or ceremonial significance of the individual (Hughes 1994). During this period, larger populations are suggested by the number and depth of sites compared with the Windmill Pattern. According to Fredrickson (1973), the Berkeley Pattern reflects gradual expansion or assimilation of different populations rather than sudden population replacement and a gradual shift in economic emphasis.

Augustine Pattern or Late Horizon (A.D. 500 to Historic Period)

The Late Horizon is characterized by the Augustine Pattern, which represents a shift in the general subsistence pattern. Changes include the introduction of bow and arrow technology; and most importantly, acorns become the predominant food resource. Trade systems expanded to include raw resources as well as finished products. There are more baked clay artifacts and extensive use of Halotis ornaments of many elaborate shapes and forms. Burial patterns retained the use of flexed burials with variable orientation, but there was a reduction in the use of ochre and widespread evidence of cremation (Moratto 1984). Judging from the number and types of grave goods associated with the two types of burials, cremation seems to have been reserved for individuals of higher status, whereas other individuals were buried in flexed positions. Johnson (1976) suggests that the Augustine Pattern represents expansion of the Wintuan population from the north, which resulted in combining new traits with those established during the Berkeley Pattern.

Central California research has expanded from an emphasis on defining chronological and cultural units to a more comprehensive look at settlement and subsistence systems. This shift is illustrated by the early use of burials to identify mortuary assemblages and more recent research using osteological data to determine the health of prehistoric populations (Dickel et al. 1984). Although debate continues over a single model or sequence for central California, the general framework consisting of three temporal/cultural units is generally accepted, although the identification of regional and local variation is a major goal of current archaeological research.

Native American Background

At the time of European contact, the project vicinity was occupied by the Southern Maidu (formerly known as Nisenan) who were identified by their language, which is a subgroup of the California Penutian linguistic family. Southern Maidu villages ranged in population from 15 to 25 people, with the tribal centers averaging more than 500 people. Villages were typically located on ridges above major streams and rivers and were inhabited mainly in the winter months. During the hot summer months, the Southern Maidu moved to cooler temporary camps in higher elevations.

Early contact with the Spanish was limited to the southern edge of the Southern Maidu territory and most knowledge came from early penetrations of Spanish into Plains Miwok territory and minor explorations across their land south of Maidu territory. During the late 18th century, systematic removal to the missions and resistance by the Miwok occurred along the southern border of Maidu territory. No records exist of the Maidu being removed to the missions. However, the Maidu did receive missionized Native Americans into their territory, as well as displaced Miwok villagers on their southern borders (Wilson and Towne 1978:387-97).

In 1833, a massive epidemic, believed to have been malaria, swept through the Sacramento Valley (Cook 1976). The exact number of casualties is unknown, but it is estimated that 75 percent of the Maidu population were killed, leaving only a fraction of the original number to face the intruding miners and settlers that arrived when gold was discovered in Coloma in 1848.

Historic Background

The history of the Central Valley and western Sierra Nevada foothills can be divided into several periods of influence; pertinent historic periods are summarized below.

Spanish Period

The most drastic and permanent change came to the Native American's way of life with the establishment of the Spanish Mission system. By the early 1800s, the mission fathers began a process of cultural change that brought the majority of the local Native Americans into the missions, although the Maidu, especially the ones living in the mountain regions, were not as affected as the Native Americans living in the coastal regions near the missions. At the expense of traditional skills, the neophytes were taught the pastoral and horticultural skills of the Hispanic tradition. Spanish missionaries traveled into the Valley to recapture escaped neophytes and recruit inland Native Americans for the coastal missions. In 1834, the Mission system was officially secularized, and the majority of the mission Native American population dispersed to local ranches, villages, or nearby pueblos (Kroeber 1925).

Soon after establishment of the mission system, a process of granting large parcels of land to prominent individuals began. Within a few years, ranchos occupied large tracts near the missions, and a pastoral economy involving the missions, the ranchos, and native inhabitants was established (Kyle et al. 1990).

Mexican Period

With the declaration of Mexican independence in 1821, Spanish control of Alta California ended, although little change actually occurred. Political change did not take place until mission secularization in 1834, when Native Americans were released from missionary control and the mission lands were granted to private individuals. Shoup and Milliken (1999) state that mission secularization removed the social protection and support on which Native Americans had come to rely. It exposed them to further exploitation by outside interests, often forcing them into a marginal existence as laborers for large ranchos. Following mission secularization, the Mexican population grew as the native population continued to decline. European-American settlers began to arrive in Alta California during this period and often married into Mexican families, becoming Mexican citizens, which made them eligible to receive land grants. In 1846, on the eve of the U.S.-Mexican War (1846 to 1848), the estimated population of Alta California was 8,000 non-natives and 10,000 natives. However, these estimates have been debated. Cook (1976) suggests the Native American population was 100,000 in 1850; the US Census of 1880 reports the Native American population as 20,385.

Local History

History of El Dorado County

In 1848, James W. Marshall discovered gold in Coloma (approximately 7.75 miles northwest of the project site), which started a gold rush into the region that forever altered the course of California's history. Hangtown, present-day Placerville, became one of the closest towns offering mining supplies and other necessities for the miners in Coloma.

By 1864, California's gold rush had essentially ended. Once the gold rush was over, people in towns such as Jackson, Placerville, and Diamond Springs turned to other means of commerce such as ranching, agriculture, and timber production (Beck and Haase 1974). Specifically, the Placerville region turned to, among the other trades, viticulture, thereby setting off the lucrative California wine industry. In 1869, the transcontinental railroad linked Sacramento more directly to the central and eastern United States. California's agricultural products quickly found markets throughout the country. Ranching, transportation, logging, and subsequent water diversion represent major historic themes for the Diamond Springs and Shingle Springs area. In addition, El Dorado County has continued to grow in importance as a residential community, with Placerville as its center of government, industry, transportation, and commerce.

Community of Diamond Springs History

As with many communities in California, the promise of gold brought the first settlers to Diamond Springs. Although the area had much to offer new settlers, it was not until the late summer of 1850 that a group of settlers from Missouri realized that the abundant water sources and rich pastureland were suitable for farming and livestock and decided to settle. Once they started making a good living by gold mining, they decided to make this area their permanent place of residence and built clapboard houses, stores, churches, hotels, etc. In 1850, one of the Missouri pioneers unearthed a 25-pound

gold nugget, which solidified Diamond Springs as one of the richest placer mining areas in El Dorado County.

By November of 1850, Diamond Springs was becoming a town to rival Coloma in size, and it was reported in the Alta California paper that more than 100 new homes had been built in just a few weeks in Diamond Springs. The following year saw the construction of three hotels, 13 mercantile stores, a blacksmith shop, and two butcher shops, with five permanent carpenters building homes and other structures for the burgeoning population. Throughout the 1850s and 1860s, Diamond Springs continued to grow and was considered the best stopping place between Folsom and Placerville, owing to its fine hotels and inns. In 1856, disaster struck the downtown area when a fire destroyed all but two buildings: the Wells Fargo Office and the Eureka Canal Company.

The community started rebuilding the downtown area with stone blocks from a nearby quarry, but a second fire in 1859 caused permanent damage to the town's prominence within the County (Sioli 1883). Diamond Springs lost its prominence as a mining town; however, the abundant water, rich soil, and relatively mild climate proved ideal for raising crops, and soon there were numerous orchards and crops being grown in the area.

One of the major drawbacks to the agricultural industry in Diamond Springs was transportation. The Sacramento and Placerville railroad line was completed from Sacramento to Folsom in 1856, but it was not until 1864 that the railroad lines reached Shingle Springs, which is approximately 6 miles northwest of Diamond Springs (Sioli 1883).

Diamond Springs continued to grow throughout the 1900s with vineyards, farms, and various hotels and restaurants, although it never grew as rapidly as it did during the Gold Rush era. Recently, there has been a population resurgence in Diamond Springs as a bedroom community for people working in Sacramento. In addition, many local businesses have moved into the area to provide services and goods for the new residents. In the general vicinity, local wineries have opened tasting rooms and provide locations for weddings, parties, and business celebrations. Today, Diamond Springs is typified by a population that wants the conveniences of city living with the small-town feel of a local, more rural community.

4.4.3 - Regulatory Framework

Federal

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA), as amended, established the National Register of Historic Places (NRHP), which is an inventory of the nation's significant prehistoric and historic properties. Under 36 Code of Federal Regulations (CFR) 60, a property is recommended for possible inclusion on the NRHP if it is at least 50 years old, has integrity, and meets one of the following criteria:

- It is associated with significant events in history, or broad patterns of events.
- It is associated with significant people in the past.
- It embodies the distinctive characteristics of an architectural type, period, or method of construction; or it is the work of a master or possesses high artistic value; or it represents a significant and distinguishable entity whose components may lack individual distinction.
- It has yielded, or may yield, information important in history or prehistory.

Certain types of properties are usually excluded from consideration for listing in the NRHP, but they can be considered if they meet special requirements in addition to meeting the criteria listed above. Such properties include religious sites, relocated properties, graves and cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years.

State

California Register of Historical Resources

As defined by Section 15064.5(a)(3)(A-D) of the CEQA Guidelines, a resource shall be considered historically significant if the resource meets the criteria for listing on the California Register of Historical Resources (CR). The CR and many local preservation ordinances have employed the criteria for eligibility to the NRHP as a model, since the NHPA provides the highest standard for evaluating the significance of historic resources. A resource that meets the NRHP criteria is clearly significant. In addition, a resource that does not meet the NRHP standards may still be considered historically significant at a local or state level.

California Environmental Quality Act

The CEQA Guidelines state that a resource need not be listed on any register to be found historically significant. The CEQA Guidelines direct lead agencies to evaluate archaeological sites to determine if they meet the criteria for listing in the California Register. If an archaeological site is a historical resource, in that it is listed or eligible for listing in the California Register, potential adverse impacts to it must be considered. If an archaeological site is considered not to be a historical resource but meets the definition of a “unique archeological resource” as defined in Public Resources Code Section 21083.2, then it would be treated in accordance with the provisions of that section.

Senate Bill 18

Since the Project includes a General Plan Amendment, the County is required to undertake Native American consultations in adherence with California Government Codes 65092; 65351; 65352; 65352.3; 65352.4; 65352.5; and 65560—collectively, formerly known as Senate Bill (SB) 18. The SB 18 Consultation must be initiated by the County and is a separate process from the NAHC Sacred Lands File record search.

Local**El Dorado County General Plan**

The Proposed Project includes a General Plan Amendment and rezone would designate the site for commercial uses. As such, the Project would be required to comply with the following General Plan Policies pertaining to the new Commercial designation:

Table 4.4-1: Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
Goal 7.5 - Cultural Resources: Ensure the preservation of the County's important cultural resources.	Consistent: No known cultural resources exist on the project site.
Policy 7.5.1.3: Cultural resource studies (historic, prehistoric, and paleontological resources) shall be conducted prior to approval of discretionary projects. Studies may include, but are not limited to, record searches through the North Central Information Center at California State University, Sacramento, the Museum of Paleontology, University of California, Berkeley, field surveys, subsurface testing, and/or salvage excavations. The avoidance and protection of sites shall be encouraged.	Consistent: A Phase I Cultural Resources Assessment has been conducted as part of this Draft EIR. Proposed mitigation would protect any previously undiscovered cultural resources on the project site.
Policy 7.5.1.6: The County shall treat any significant cultural resources (i.e., those determined California Register of Historical Resources/National Register of Historic Places eligible and unique paleontological resources), documented as a result of a conformity review for ministerial development, in accordance with CEQA standards.	Consistent: No known significant cultural resources are located within the project site. Proposed mitigation would protect any previously undiscovered cultural resources on the project site in accordance with CEQA standards.
Policy 7.5.2.4: The County shall prohibit the modification of all NRHP/CR listed properties that would alter their integrity, historic setting, and appearance to a degree that would preclude their continued listing on these registers. If avoidance of such modifications on privately owned listed properties is deemed infeasible, mitigation measures commensurate with NRHP/CR standards shall be formulated in cooperation with the property owner.	Consistent: The Project does not contain any NRHP/CR listed properties.
Policy 7.5.2.5: In cases where the County permits the demolition or alteration of an historic building, such alteration or new construction (subsequent to demolition) shall be required to maintain the character of the historic building or replicate its historic features.	Consistent: The demolition or alteration of a historic building is not proposed as a part of this Project. There are no historic buildings on the site.
Source: El Dorado County General Plan, 2004; MBA, 2010.	

El Dorado County Ordinance Code

Chapter 17.74.000 Design Review Ordinance

Chapter 17.74.000, known as the design review ordinance, establishes protection, enhancement, and use of places, sites, buildings, and structures having special character, aesthetic interest, and value. Within that chapter, Section 17.74.060 provides for the protection of historical buildings.

4.4.4 - Methodology

In 2007/2008, MBA conducted the previously discussed Cultural Resources Assessment (Appendix F). The purpose of the assessment was to determine the presence or absence of potentially significant cultural and paleontological resources that might be affected by project development. This evaluation included review of record searches at the North Central Information Center (NCIC), the Native American Heritage Commission (NAHC), and the University of California Museum of Paleontology (UCMP), as well as a field survey that was conducted within the project study area.

North Central Information Center (NCIC) Record Search

An archival records search was conducted on September 21, 2007 by staff at the NCIC, California State University, Sacramento, Sacramento, California (see Appendix F, Cultural Resources Assessment, Appendix A.). The record search included the project study area and a 0.25-mile radius outside the project boundaries. The NCIC record search included current inventories of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Inventory of Historical Resources, the Caltrans Bridge Inventory (1987 and 2000), California State Historic Landmarks, and the California Points of Historical Interest. Three historic maps—the 1870 GLO Plat map, the 1887 Placerville Sheet, and the 1949 15' USGS Placerville quadrangle map—and the Historic Ditch Alignments for El Dorado County (1993) were examined to help locate any historic resources in the area. In addition, the Historic Ditch Alignments for El Dorado County (1987-1993) was reviewed to determine which of the ditches or portions of the ditches would be affected by project development.

The record search indicated that four surveys (NCIC # 4258, 4322, 4324, and 6874) were conducted in some portions of the project area. In addition, nine surveys (NCIC # 4329, 4310, 4326, 4328, 7257, 4266, 4298, 7014, and 4269) have been conducted within a 0.25-mile radius of the project study area.

From these 13 surveys, 26 cultural resource sites have been recorded within a 0.25-mile radius of the Project. For the Proposed Project, only two of the 26 sites may potentially be impacted by project development: P-9-1900 CA-ELD-1376-H and P-9-1889 CA-ELD-1371-H.

Native American Heritage Commission (NAHC) Record Search

On November 5, 2007, MBA sent a letter to the Native American Heritage Commission (NAHC) in Sacramento in an effort to determine whether any sacred sites listed on its Sacred Lands File are within the project study area. A response from the NAHC was received on November 20, 2007,

stating that a search of its Sacred Land File failed to indicate the presence of Native American cultural resources in the immediate project study area.

Included with the response was a list of 13 Native American representatives who may have further knowledge of the project study area. To ensure that all Native American concerns are adequately addressed, letters to each of the 13 listed tribal contacts were sent on December 12, 2007, requesting any input about the Project that these individuals may have. Because no responses were received by MBA, second letters were sent to the 13 representatives via email or the U.S. Postal Service on January 29, 2008, requesting any additional information or comments. As of this date, no responses to either the December 2007 or the January 2008 letter requests have been received.

SB 18 Tribal Consultation

Because the Proposed Project includes a General Plan Amendment, the tenets of SB 18 must be adhered to. To initiate the SB 18 process, El Dorado County Project Planner Jason R. Hade, AICP, sent a letter on December 11, 2007 to the chairperson of the El Dorado Miwok Tribe, Jeri Scrambler, requesting consultation. A response was received from Ms. Scrambler on December 26, 2007, asking that she be consulted about this Project and specifically requested to know when the cultural resources assessment would be available for review.

University of California Museum of Paleontology (UCMP) Record Search

On December 14, 2007, MBA requested a paleontological record search of the University of California Museum of Paleontology (UCMP) to determine if paleontological resources were present within the project study area. On December 17, 2007, a response was received from Dr. Kenneth Finger, Ph.D., stating that because of the unlikely presence of significant paleontological resources within the project study area, no paleontological surveys or construction monitoring would be required.

Field Survey

MBA cultural resource personnel surveyed the project study area on November 15, 2007, using 15-meter transects to ensure proper coverage, when possible. On February 8, 2008, MBA personnel conducted a focused survey to relocate previously recorded sites and note their location in relation to the project study area and their condition/existence.

In general, the project terrain surveyed varied from grassy areas to built environments with existing structures to highly disturbed areas that included the former location of the Diamond Springs Lime Plant (Appendix F, Cultural Resources Assessment, Appendix D, Photograph 1). In some areas, dense vegetation (Appendix F, Cultural Resources Assessment, Appendix D, Photograph 2), areas covered with asphalt and structures, the steep sides of hills (Appendix F, Cultural Resources Assessment, Appendix D, Photograph 3), and highly vegetated areas could not be surveyed using uniformly spaced transects. In highly vegetated areas, transect intervals were kept as close as possible, ensuring the best coverage while maintaining personal safety. However, in areas covered

with asphalt and structures, the only feasible approach was to closely examine the areas immediately adjacent to the asphalt or the structures. Survey areas along existing roadways, such as Lime Kiln Road and SR-49, were particularly difficult to survey, as traffic was relatively constant and the road shoulders were narrow (Appendix F, Cultural Resources Assessment, Appendix D Photograph 4).

Approximately 60 to 65 percent of the project study area could be surveyed; the remaining areas were either covered with structures, commercial areas, dense vegetation, and/or was within paved roads or parking areas. During the course of the survey, no historic or prehistoric resources were observed.

A focused search was conducted to relocate the two previously recorded resources within the project study area. Site number P-9-1889 CA-ELD-1371-H is a portion of the Diamond Ditch System, which includes the Old Diamond Ridge Ditch, the East Diamond Ditch Missouri, and the Diamond Ditch. The map titled Historic Ditch Alignments for El Dorado County (McCurry 1987-1993) depicts a portion of the Diamond Ditch traversing through the southeastern portion of the Project. Originally recorded in 1996, this portion of the Diamond Ditch was not relocated during the field survey. The area where the Ditch was located in 1996 has been highly disturbed with roads, buildings, and graded areas.

Site number P-9-1900 CA-ELD-1376-H was recorded in 1995 as being the “remains of the former Diamond Springs Lime Plant in Diamond Springs, CA.” At that time, a number of structures were extant, including a redwood water tank, remains of a kiln, a marble or limestone structure, and a concrete block building. However, the site record states that the structures are “. . . currently in ruins . . . condition is very poor . . . the buildings are all in ruins and some vandalism has taken place.” During the February 8, 2008 relocation survey, no evidence of any of the structures identified in 1995 was found. Some small pieces of brick, stone, glass fragments, and one nail were scattered across the top of the hill and are considered the only evidence possibly related to the former Lime Plant. In random areas, patches of dirt were scraped away to determine if there were subsurface remains from the Lime Plant. None of the scrapings resulted in the discovery of subsurface remains. It appears that after the buildings were demolished, equipment was used to grade the area where the Lime Plant stood, thus removing any remnants except very fragmented pieces of glass and brick.

4.4.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist of the CEQA Guidelines, cultural and historical resource impacts resulting from the implementation of the Proposed Project would be considered significant if the Project would:

- a.) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?
- b.) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

- c.) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
- d.) Disturb any human remains, including those interred outside of formal cemeteries?

4.4.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate. Included are construction (short-term) and operational (long-term impacts of onsite improvements, as well as construction impacts of offsite improvements.

Historic Resource

Impact CUL-1: Project implementation could cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.

Impact Analysis

Onsite Improvements

Based on the records search, 26 cultural resource sites have been recorded within a 0.25-mile radius of the proposed project site. However, only two of the 26 sites were identified to have the potential to be impacted by the implementation of the Proposed Project. During the course of both the original pedestrian survey conducted on November 15, 2007 and the site relocation survey on February 8, 2008, no prehistoric or historic resources were observed within the proposed project site. As a result, implementation of the Proposed Project would result in no impacts to known historical resources.

However, the possibility exists that subsurface construction activities may encounter undiscovered historic resources. In this respect, this is a potentially significant impact. Mitigation is proposed to reduce this potentially significant impact to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM CUL-1 If a potentially significant cultural resource is encountered during subsurface earthwork activities for the Project, all construction activities within a 100-foot radius of the find shall cease until a qualified archaeologist determines whether the resource requires further study. El Dorado County shall require the Project applicant to include a standard inadvertent discovery clause in every construction contract and inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded and the State Historic Preservation Officer and Indian tribes with concerns about the property, and the Advisory Council on Historic Preservation will be notified within 48 hours in compliance with 36 CFR.800.13(b)(3). Potential resources will be evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist.

Potentially significant cultural resources consist of but are not limited to stone, bone, glass, ceramic, wood, or shell artifacts; fossils; or features including hearths, structural remains, or historic dumpsites. If the resource is determined significant under CEQA, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan that will capture those categories of data for which the site is significant. The archaeologist shall also perform appropriate technical analysis, prepare a comprehensive report and file it with the appropriate Information Center, and provide for the permanent curation of the recovered materials. Construction activities within the 100-foot radius may continue once all appropriate recovery measures have been completed.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

During the course of the pedestrian survey conducted on August 16, 2011, no prehistoric or historic resources were observed within the offsite roadway improvement areas. As a result, implementation of the Proposed Project would result in no impacts to known historical resources.

However, the possibility exists that subsurface construction activities may encounter undiscovered historic resources. In this respect, this is a potentially significant impact. Implementation of Mitigation Measure CUL-1, outlined above, is proposed to reduce this potentially significant impact to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure CUL-1.

Level of Significance After Mitigation

Less than significant impact.

Archaeological Resource

Impact CUL-2:	The Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.
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Impact Analysis

Onsite Improvements

Based on communications with the Native American Heritage Commission (NAHC) in Sacramento, there were no sacred sites included in the proposed project site that were listed in the NAHC Sacred Lands File. The pedestrian survey conducted during the cultural resource assessment did not find any

evidence suggesting that archaeological resources could be present. However, the possibility exists that subsurface construction activities may encounter undiscovered archaeological resources. Accordingly, this is a potentially significant impact. Mitigation is proposed to reduce this potentially significant impact to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure CUL-1.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

Based on communications with the Native American Heritage Commission (NAHC) in Sacramento, there were no sacred sites included in the offsite improvement areas that were listed in the NAHC Sacred Lands File. The pedestrian survey conducted at the offsite roadway improvement areas did not find any evidence suggesting that archaeological resources could be present. However, the possibility exists that subsurface construction activities may encounter undiscovered archaeological resources. Accordingly, this is a potentially significant impact. Mitigation is proposed to reduce this potentially significant impact to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure CUL-1.

Level of Significance After Mitigation

Less than significant impact.

Paleontological Resource or Geologic Feature

Impact CUL-3:	The Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
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Impact Analysis***Onsite Improvements***

The paleontological record search of the UCMP stated that, because of the unlikelihood of potentially significant paleontological resources in the proposed project area, no paleontological surveys or construction monitoring was required. Furthermore, the Cultural Resources Assessment (CRA) did

not find any evidence suggesting that paleontological resource could be present onsite. Therefore, potentially significant impacts to paleontological resources would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

As with onsite improvements discussed above, the paleontological record search of the UCMP stated that, because of the unlikelihood of potentially significant paleontological resources in the offsite roadway improvement area, no paleontological surveys or construction monitoring was required. Furthermore, the CRA did not find any evidence suggesting that paleontological resources could be present onsite. Therefore, potentially significant impacts to paleontological resources would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Human Remains

Impact CUL-4:	Project implementation would potentially disturb human remains, including those interred outside of formal cemeteries.
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Impact Analysis

Onsite Improvements

There are no known burial sites on the project site. The CRA did not find any evidence suggesting that burial sites could be present onsite. In the event that unknown remains are discovered on the project site during construction activities, compliance with California Health and Safety Code 7050.5 is required. This requirement is summarized as follows:

If human remains are encountered, California Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the county coroner has made a determination of the origin and disposition pursuant to Public Resource Code

5097.98. The County Coroner must be notified immediately of the find. If the remains are determined to be prehistoric, the coroner is required to notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or its authorized representative, the descendant may inspect the site of the discovery. The descendant shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

There is always the unlikely even that ground-disturbing activities during construction may uncover previously unknown buried human remains. Should this occur, federal laws and standards apply, including the Native American Graves Protection and Repatriation Act (NAGPRA) and its regulations found in the Code of Federal Regulations. Implementation of the proposed mitigation would ensure impacts are less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM CUL-4 If human remains are encountered during earth-disturbing activities for the Project, all work in the adjacent area shall stop immediately and the El Dorado County Coroner's office shall be notified. If the remains are determined to be Native American in origin, the Native American Heritage Commission shall be notified and will identify the Most Likely Descendent, who will be consulted for recommendations for treatment of the discovered remains.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

There are no known burial sites on offsite roadway improvement areas. The CRA did not find any evidence suggesting that burial sites could be present. In the event that unknown remains are discovered on the project site during construction activities, compliance with California Health and Safety Code 7050.5, outlined above, is required.

There is always the unlikely even that ground-disturbing activities during construction may uncover previously unknown buried human remains. Should this occur, federal laws and standards apply, including the Native American Graves Protection and Repatriation Act (NAGPRA) and its regulations found in the Code of Federal Regulations. Implementation of the proposed mitigation would ensure impacts are less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure CUL-4.

Level of Significance After Mitigation

Less than significant impact.

4.5 - Geology, Soils, and Seismicity

4.5.1 - Introduction

This section describes the existing geology, soils, and seismicity setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on the Geotechnical Engineering Study for Diamond Dorado Commercial Center, included in this EIR as Appendix G, Geotechnical Engineering Study, as well as information provided in the El Dorado County General Plan EIR (2003).

4.5.2 - Environmental Setting

The site is located in the Sierra Foothills region of the Sierra Nevada Mountain Range. The Sierra Nevada geomorphic province is characterized by steep-sided hills and narrow, rocky stream channels. This province consists of Pliocene and older deposits that have been uplifted as a result of plate tectonics, granitic intrusion, and volcanic activity. Subsequent glaciation and additional volcanic activity are factors that led to the east-west orientation of stream channels. The project site is located in an area underlain by Mesozoic granitic rocks and Jurassic volcanic and metavolcanic rocks.

Regional Seismicity

Seismicity is defined as the geographic and historical distribution of earthquakes, or more simply, earthquake activity. Seismic activity may result in geologic and seismic hazards, including seismically induced fault displacement and rupture, ground shaking, liquefaction, lateral spreading, landslides and avalanches, and structural hazards.

Earthquakes are measured either based on energy released (Richter Magnitude scale) or the intensity of ground shaking at a particular location (Modified Mercalli scale). The Richter Magnitude scale measures the magnitude of an earthquake based on the logarithm of the amplitude of waves recorded by seismographs, with adjustments made for the variation in the distance between the various seismographs and the epicenter of the earthquake. This scale starts with 1.0 and has no maximum limit. The scale is logarithmic—an earthquake with a magnitude of 2.0 is 10 times the magnitude (30 times the energy) of an earthquake with a magnitude of 1.0. The Modified Mercalli scale is an arbitrary measure of earthquake intensity; it does not have a mathematical basis (Table 4.5-1). This scale is composed of 12 increasing levels of intensity that range from imperceptible shaking (Scale I) to catastrophic destruction (Scale XII).

Table 4.5-1: Modified Mercalli Intensity Scale

Richter Magnitude	Modified Mercalli Intensity	Effects	Average Peak Ground Velocity (centimeters/seconds)	Average Peak Acceleration
0.1–0.9	I	Not felt. Marginal and long-period effects of large earthquakes	—	—
1.0–2.9	II	Felt by only a few persons at rest, especially on upper floors of building. Delicately suspended objects may swing.	—	—
3.0–3.9	III	Felt quite noticeable in doors, especially on upper floors of building, but many people do not recognize it as an earthquake. Standing cars may rock slightly. Vibration like passing a truck. Duration estimated.	—	0.0035–0.007 g
4.0–4.5	IV	During the day, felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make creaking sound. Sensations like heavy truck striking building. Standing cars rocked noticeably.	1–3	0.015–0.035 g
4.6–4.9	V	Felt by nearly everyone, many awakened. Some dishes, windows, broken; cracked plaster in a few places; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.	3–7	0.035–0.07 g
5.0–5.5	VI	Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of falling plaster and damaged chimneys. Damage slight.	7–20	0.07–0.15 g
5.6–6.4	VII	Everyone runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well built, ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving cars.	20–60	0.15–0.35 g
6.5–6.9	VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monument walls, and heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving in cars disturbed.	60–200	0.35–0.7 g

Table 4.5-1 (cont.): Modified Mercalli Intensity Scale

Richter Magnitude	Modified Mercalli Intensity	Effects	Average Peak Ground Velocity (centimeters/seconds)	Average Peak Acceleration
7.0–7.4	IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	200–500	0.7–1.2 g
7.5–7.9	X	Some well-built structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Railway lines bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed, slopped over banks.	≥ 500	>1.2 g
8.0–8.4	XI	Few, if any masonry structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	≥ 500	>1.2 g
≥ 8.5	XII	Total damage. Waves seen on ground. Lines of sight and level distorted. Objects thrown into the air.	≥ 500	>1.2 g
Source: United States Geological Survey.				

Faulting

Earthquake activity is intrinsically related to the distribution of fault systems (i.e., faults or fault zones) in a particular area. A fault is defined as a fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side.

Depending on activity patterns, faults and fault-related geologic features may be classified as active, potentially active, or inactive.

No active faults have been identified in El Dorado County. Additionally, during field surveys of the project site, no active faults or earthquake fault zones were identified on the project site and no evidence of recent or active faulting was observed. The nearest mapped faults to the site are related to the Bear Mountains and Melones fault zones (both a part of the Foothills Fault Zone) located about 3.5 miles to the west and 1 mile east of the site, respectively. The nearest known active faults to the site are the North Tahoe fault located approximately 48 miles northeast of the site and the Dunnigan Hills fault located approximately 55 miles west-northwest.

Seismic Hazards

The primary seismic effects associated with earthquakes are ground shaking, fault rupture, liquefaction, lateral spreading, landslides/avalanches, and structural hazards. A brief description of these hazards and their applicability to the Project are provided below.

Fault Rupture

Fault or surface rupture occurs when movement on a fault deep within the earth breaks through to the surface. Not all earthquakes result in surface rupture. Fault rupture typically occurs along preexisting faults, which represent areas of weakness. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep, which is the slow rupture of the earth's crust. Sudden displacements are more damaging to structures because they are accompanied by shaking. No faults are known to occur on the project site or within the project vicinity.

Ground Shaking

Seismic shaking is characterized by the physical movement of the land surface during and subsequent to an earthquake. Seismic shaking has the potential to cause destruction and damage to buildings and property, including damage resulting from damaged or destroyed gas or electrical utility lines; disruption of surface drainage; blockage of surface seepage and groundwater flow; changes in groundwater flow; dislocation of street alignments; displacement of drainage channels and drains; and possible loss of life. According to the El Dorado County General Plan EIR, potential ground shaking intensities vary across the County, increasing from west to east (EDAW 2003).

Ground Failure

Ground failure can occur during seismic activities related to liquefaction or seismic induced settlement. Liquefaction is a phenomenon in which the strength and stiffness of a soil is reduced by earthquake shaking or other rapid loading. This type of ground failure is most likely to occur in water-saturated silts, sands, and gravels having low to medium density. When a soil of this type is subjected to vibration, it tends to compact and decrease in volume. If the groundwater is unable to drain during vibration, the tendency of the soil to decrease in volume results in an increase in pore-water pressure. When the pore-water pressure builds up to the point where it is equal to the overburden pressure (effective weight of overlying soil), the effective stress becomes zero. In this condition, the soil loses its sheer strength and assumes the properties of a heavy liquid.

Seismically induced ground settlement can result in damage to property when an area settles to different degrees over a relatively short distance. The sinking or settlement of a structure, fill prism, or other imposed load is usually the result of compaction or consolidation of the underlying soil. Soils susceptible to seismically induced settlement typically include loose granular materials.

El Dorado County's General Plan EIR indicates that the County is not considered to be at risk from liquefaction, lateral spreading, or other ground failure hazards because of the low likelihood of seismic activity.

Landslides and Slope Failure

Seismic activity may trigger landslides or slope failure during an earthquake. Slope instability can occur as a result of seismic ground motions and/or in combination with weak soils and saturated conditions.

Project Site Conditions

Subsurface Conditions

During the site evaluation related to the Geotechnical Engineering Study test pits were excavated to determine the subsurface geologic conditions for the project site. A complete analysis of the subsurface samples, along with a map identifying the location of each of the test pits is provided in Appendix G. A summary of the conclusions is provided below.

Excavation of the test pits encountered varying conditions. Test pits excavated in the western half of the project site encountered silty sand fill in a loose to medium dense and moist condition as well as sand fill with aggregate and limestone near the surface. Underlying the fill materials, a “sludge” type material in a loose and saturated condition was encountered, which was underlain by bedrock.

In the eastern half of the project site, silty sand with cobble in a medium dense to dense, variably cemented, and moist condition was encountered, as well as clayey sand fill in a medium dense and moist condition near the surface. Clayey and silty sand with cobble was encountered below the fill materials at most test pits in the eastern half of the site, with bedrock underlying the sands.

Groundwater

Groundwater was generally not encountered during subsurface explorations except for a perched zone overlying the bedrock in one boring location and sludge in one test pit location. However, subsurface water conditions typically vary in the foothill region. It is anticipated that water may be perched on less weathered rock, and present in the fractures of more weathered rock, such as that found beneath the site, at varying times of the year.

Asbestos Minerals

Naturally occurring asbestos (NOA) minerals are commonly associated with ultramafic and serpentine rock units, and within associated amphibolite mineral zones. When rock containing naturally occurring asbestos is broken or crushed, asbestos may be released from the rock, becoming airborne. Asbestos is classified by the U.S. Environmental Protection Agency (EPA) as a known human carcinogen, and NOA has been identified as a potential health hazard. The El Dorado County map depicting Asbestos Review Areas of the Western Slope (which was derived from a California Geological Survey map from Open File Report 2000-02) does not portray the project site as located within a review area or in an area likely to contain asbestos materials.

4.5.3 - Regulatory Framework

State

Alquist-Priolo Earthquake Fault Zoning Act

In response to the severe fault rupture damage of structures by the 1971 San Fernando earthquake, the State of California enacted the Alquist-Priolo Earthquake Fault Zoning Act in 1972. This act required the State Geologist to delineate Earthquake Fault Zones along known active faults that have a relatively high potential for ground rupture. Faults that are zoned under the Alquist-Priolo Act must meet the strict definition of being “sufficiently active” and “well-defined” for inclusion as an Earthquake Fault Zones. The Earthquake Fault Zones are revised periodically, and they extend 200 to 500 feet on either side of identified fault traces. No structures for human occupancy may be built across an identified active fault trace. An area of 50 feet on either side of an active fault trace is assumed to be underlain by the fault, unless proven otherwise. Proposed construction in an Earthquake Fault Zone is permitted only following the completion of a fault location report prepared by a California Registered Geologist.

California Building Standards Code

Title 24 of the California Code of Regulations, also known as the California Building Standards Code, sets forth minimum requirements for building design and construction. The California Building Standards Code is a compilation of three types of building standards from three different origins:

- Building standards that have been adopted by state agencies without change from building standards contained in national model codes.
- Building standards that have been adopted and adapted from the national model code standards to meet California conditions.
- Building standards, authorized by the California legislature, that constitute extensive additions not covered by the model codes that have been adopted to address particular California concerns.

In the context of earthquake hazards, the California Building Standards Code’s design standards have a primary objective of assuring public safety and a secondary goal of minimizing property damage and maintaining function during and following seismic event. Recognizing that the risk of severe seismic ground motion varies from place to place, the California Building Standards Code seismic code provisions will vary depending on location—Seismic Zones 0, 1, 2, 3, and 4, with 0 being the least stringent and 4 being the most stringent.

Local

El Dorado County General Plan

As part of the Proposed Project, a proposed General Plan Amendment and rezone would designate the site for commercial uses. As such, the Project would be required to comply with the following General Plan policies (Table 4.5-2) pertaining to the new Commercial designation:

Table 4.5-2: Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
Goal 6.3 - Geologic and Seismic Hazards: Minimize the threat to life and property from seismic and geologic hazards	Consistent: The Project—through compliance with county development regulations, including building and site standards, and appropriate measures included in this Draft EIR—would minimize the threat to life and property from seismic and geologic hazards.
Policy 6.3.1.1: Requires that all discretionary projects and all projects requiring a grading permit, or a building permit that would result in earth disturbance, that are located in areas likely to contain naturally occurring asbestos (based on mapping developed by the California Department of Conservation [DOC]) have a California-registered geologist knowledgeable about asbestos-containing formations inspect the project area for the presence of asbestos using appropriate test methods.	Consistent: According to the Asbestos Review Map completed by El Dorado County, the project site is not located in an area noted as containing naturally occurring asbestos.
Objective 6.3.2 - Countywide Seismic Hazards: Continue to evaluate seismic related hazards such as liquefaction, landslides, and avalanche, particularly in the Tahoe Basin.	Consistent: Because of the relatively low potential for seismic activity in El Dorado County, the project site is not considered at risk from seismic hazards such as liquefaction, landslides, or avalanches. The project site is not located in the Tahoe Basin.
Objective 7.1.2 - Erosion/Sedimentation: Minimize soil erosion and sedimentation.	Consistent: Compliance with the County's Grading Ordinance and Stormwater Management Plan for Western El Dorado County and implementation of a stormwater pollution prevention plan (SWPPP) and associated Best Management Practices (BMPs) would ensure that on- and offsite erosion and sedimentation would be reduced both during and after project implementation.
Policy 7.1.2.1: Development or disturbance shall be prohibited on slopes exceeding 30 percent unless necessary for access. Access corridors on slopes 30 percent and greater shall have a site-specific review of soil type, vegetation, drainage contour, and site placement to encourage proper site selection and mitigation. Roads needed to complete circulation/access and for emergency access may be constructed on such cross slopes if all other standards are met.	Consistent: Approximately 18 percent of the DDRC area contains slopes greater than 30 percent. Additional areas within the MRF site access may contain slopes greater than 30 percent. These slopes would be excavated prior to project development. The proposed tentative grading plan has been submitted to the County for approval.

Table 4.5-2 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
Policy 7.1.2.2: Discretionary projects that require earthwork and grading, including cut and fill for roads, shall be required to minimize erosion and sedimentation, conform to natural contours, maintain natural drainage patterns, minimize impervious surface, and maximize the retention of natural vegetation.	Consistent: The Project will minimize erosion through compliance with all protective measures found in the Grading Ordinance.
Policy 7.1.2.3: Enforce Grading Ordinance provisions for erosion control on all development projects and adopt provisions for ongoing, applicant-funded monitoring of the project grading.	Consistent: The Project will comply with all applicable Grading Ordinance provisions.
Policy 7.3.2.2: Projects requiring a grading permit shall have an erosion control program approved, where necessary.	Consistent: The Project requires a grading permit prior to construction. If necessary, an erosion control program will be prepared and approved subsequent to project grading.
Source: El Dorado County General Plan, 2004; MBA, 2010.	

El Dorado County Ordinance Code**Grading Ordinance (Section 15.14.000)**

The El Dorado County Grading Ordinance establishes the administrative procedures for issuance of grading permits and provides for approval of grading plans and inspection of grading. The Grading Ordinance sets forth provisions to safeguard life, limb, health, property and public welfare; to avoid pollution of watercourses; and to ensure that the intended use of a graded site is consistent with the El Dorado County General Plan, the adopted Stormwater Management Plan, the California Fire Safe Standards, the California Building Code, and applicable El Dorado County ordinances including the Zoning Ordinance.

4.5.4 - Methodology

This section addresses the potential for exposure of people to risk of loss, injury or death or structural damage due to the local geology underlying the proposed project site, as well as slope instability, ground settlement, unstable soil conditions, and regional seismic conditions. Geologic/geotechnical conditions affecting the site are summarized from compiled information and analyses, including referenced documents/publications and a site-specific program of geotechnical exploration, sampling, and laboratory testing.

4.5.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, geology, soils, and seismicity impacts resulting from the implementation of the Proposed Project would be considered significant if the Project would:

- a.) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:
 - i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
 - ii. Strong seismic ground shaking?
 - iii. Seismic-related ground failure, including liquefaction?
 - iv. Landslides?
- b.) Result in substantial soil erosion or the loss of topsoil?
- 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
- d.) Be located on expansive soil, as defined in Section 1803.5 of the 2010 California Building Code, creating substantial risks to life or property?
- 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? (Refer to Section 6.5, Effects Found Not To Be Significant.)

4.5.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate. Included are construction (short-term) and operational (long-term) impacts of onsite improvements, as well as construction impacts of offsite improvements.

Rupture Known Earthquake Fault

Impact GEO-1:	The Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving the 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.
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Impact Analysis

Onsite Improvements

As with most areas of California, the project site is subject to ground motion resulting from earthquakes on nearby faults. However, there are no known active or potentially active faults or fault traces crossing the site. Therefore, the project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone. The resulting fault rupture impact is anticipated to be less than significant and no mitigation is required.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

As with proposed onsite improvements, there are no known active or potentially active faults or fault traces associated with offsite transportation improvements. Therefore, offsite improvements are not located within a currently designated Alquist-Priolo Earthquake Fault Zone, and impacts associated with the potential for fault rupture at offsite transportation improvement areas are anticipated to be less than significant. No mitigation is required.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Strong Seismic Ground Shaking

Impact GEO-2:	The Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving strong seismic ground shaking.
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Impact Analysis**Onsite Improvements**

The potential exists for ground accelerations as high as 0.4g from strong earthquakes along the Foothills Fault Zone, resulting in a moderate to low potential for severe ground shaking in the project area (EDAW 1998). However, based on a literature review of shear-wave velocity characteristics conducted pursuant to the Geotechnical Report (Appendix G) and subsurface interpretations, it was determined that the required compliance with the California Building Code would ensure that impacts associated with strong seismic ground shaking would be less than significant. Accordingly, as the Project would be designed to comply with all applicable state and local regulations, including the California Building Code, impacts related to this issue would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

As with the onsite improvement areas, the potential exists for ground accelerations as high as 0.4g from strong earthquakes along the Foothills Fault Zone, resulting in a moderate to low potential for severe ground shaking in the project area (EDAW 1998). However, proposed offsite improvements are roadway improvements; thus, impacts associated with strong seismic ground shaking would be less than significant. In addition, because the Project would be designed to comply with all applicable state and local regulations, all impacts related to the exposure of people or structures to strong seismic ground shaking would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Ground Failure/Liquefaction

Impact GEO-3:	The Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving ground failure or liquefaction.
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Impact Analysis

Onsite Improvements

Liquefaction is the sudden loss of soil shear strength and sudden increase in pore-water pressure caused by shear strains, as could result from an earthquake. Research has shown that saturated, loose to medium-dense sands with a silt content less than about 25 percent located within the top 40 feet are most susceptible to liquefaction and surface rupture/lateral spreading. Slope instability can occur as a result of seismic ground motions and/or in combination with weak soils and saturated conditions.

Because of the absence of a permanent elevated groundwater table, the relatively shallow depth to bedrock, and the relatively low seismicity of the area, the potential for damage due to site liquefaction and slope instability is considered low. Therefore, impacts associated with ground failure and liquefaction would be less than significant and no mitigation is required.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

As with onsite improvements, because of the absence of a permanent elevated groundwater table, the relatively shallow depth to bedrock, and the relatively low seismicity of the area, the potential for damage due to site liquefaction and slope instability is considered low within the offsite roadway improvement areas. Therefore, impacts associated with ground failure and liquefaction would be less than significant and no mitigation is required.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Landslides

Impact GEO-4:	The Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving landslides.
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Impact Analysis**Onsite Improvements**

The project site occurs on land that contains gentle slopes, with an overall relief of approximately 66 feet. No steep hillsides are adjacent to the project site. The Project would be graded to create a generally level site, and any slopes created during grading activities would be designed to ensure that landslides would not occur. The proposed detention basin's slopes would be engineered at no more than a 2:1 ratio in accordance with the tentative grading plan. Since the Project would not include steep slopes or other features that may result in landslides and all slopes would be engineered, impacts associated with this issue would be less than significant and no mitigation is required.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

The project site occurs on land that contains gentle slopes, with an overall relief of approximately 66 feet. No steep hillsides are adjacent to the project site. The Project would be graded to create a generally level site, and any slopes created during grading activities would be designed to ensure that landslides would not occur. The proposed detention basin's slopes would be engineered at no more than a 2:1 ratio, consistent with the tentative grading plan. Since the Project would not include steep slopes or other features that may result in landslides and all slopes would be engineered, impacts associated with this issue would be less than significant and no mitigation is required.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Soil Erosion or Topsoil Loss

Impact GEO-5: The Project could result in substantial soil erosion or the loss of topsoil.

Impact Analysis

Onsite Improvements

During construction activities of the Proposed Project, soil would be exposed, and there would be an increased potential for wind and soil erosion compared to existing conditions. Additionally, during a storm event, soil erosion could occur at an accelerated rate. The increased water erosion potential could result in short-term water quality impacts as identified in Section 4.7, Hydrology and Water Quality. These water-related impacts would be reduced to a level considered less than significant through implementation of mitigation measures identified in Section 4.7, Hydrology and Water Quality, which include best management practices (BMPs). Furthermore, the Project applicant is required to adhere to the requirements of the General Construction Permit and utilize typical BMPs specifically identified in the SWPPP for the Project in order to prevent construction pollutants from contacting stormwater and to keep all products of erosion from moving offsite into receiving waters.

Wind erosion would also have the increased potential to occur during project construction. The Natural Resource Conservation Service categorizes soils into wind erodibility groups (WEGs) 1

through 8. Group 1 soils are the most susceptible to wind erosion, while Group 8 soils are least susceptible to wind erosion. Soils within the project site are categorized as WEG 5 (Dfb and DfC), and 8 (PrD). The majority of earth disturbance would take place within the PrD soils, which have a WEG of 8 and are least susceptible to wind erosion. Therefore, the Proposed Project would not result in substantial soil erosion or the loss of topsoil due to wind erosion.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure HYD-1.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

As with onsite improvements, during offsite roadway construction activities associated with the Proposed Project, soil would be exposed, and there would be an increased potential for wind and soil erosion compared to existing conditions. Additionally, during a storm event, soil erosion could occur at an accelerated rate. The increased water erosion potential could result in short-term water quality impacts as identified in Section 4.7, Hydrology and Water Quality. These water-related impacts would be reduced to a level considered less than significant through implementation of mitigation measures identified in Section 4.7, Hydrology and Water Quality, which include best management practices (BMPs). Furthermore, the Project applicant is required to adhere to the requirements of the General Construction Permit and utilize typical BMPs specifically identified in the SWPPP for the Project in order to prevent construction pollutants from contacting stormwater and to keep all products of erosion from moving offsite into receiving waters.

Wind erosion would also have the increased potential to occur during project construction. Soils within offsite roadway improvement areas range from WEG 5 to 8, which are less susceptible to wind erosion. Therefore, the Proposed Project would not result in substantial soil erosion or the loss of topsoil due to wind erosion.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure HYD-1.

Level of Significance After Mitigation

Less than significant impact.

Unstable Geologic Location

Impact GEO-6:	The Project would 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
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Impact Analysis

Onsite Improvements

The project site contains varied terrain with some areas exceeding 40 percent slope. Prior to the construction of buildings, grading activities would reduce the severity of onsite slopes, and all remaining slopes would be engineered at a slope ratio at or less than 2:1. Because grading would engineer all onsite slopes and because there are no hillsides adjacent to the project area susceptible to landslides, landslides are not expected to occur. Furthermore, soil conditions at the project site do not indicate the potential for lateral spreading, subsidence, liquefaction or collapse. However, as noted in the Geotechnical Engineering Study, unstable geologic conditions may be present on the project site as a result of corrosive soils and non-engineered fills. These conditions are discussed below.

Corrosive Soils

Corrosive soils contain constituents or physical characteristics that damage concrete (water-soluble sulfates) and/or ferrous metals (chlorides, ammonia, nitrates, low pH levels, and low electrical resistivity) over long periods of time. Corrosive soils could potentially create a significant hazard to the Project by weakening the structural integrity of the concrete and metal used to construct the building and associated utilities, and could potentially lead to structural instability. Structural damage and foundation instability caused by corrosive soils is a potentially significant impact.

Laboratory testing indicates that the onsite, lime-enriched soils have a moderate potential for sulfide attack of concrete, which is regarded as corrosive and therefore would result in a potentially significant impact. Mitigation Measure GEO-6a would reduce the project impacts related to corrosive soils to less than significant.

Non-Engineered Fills

The existing project site contains non-engineered fills, fill stockpiles and lime sludge materials that are relatively loose and are not considered suitable for support of the Proposed Project in their current condition. As such, potentially significant impacts would occur associated with geological instability that may result in settlement or collapse of structures constructed on the site.

The Geotechnical Engineering Study contained in Appendix G of this EIR contains specific construction recommendations to reduce project impacts associated with settlement potential to a less than significant level. Therefore, implementation of Mitigation Measure GEO-6b will reduce project impacts related to geologic instability to a less than significant level.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM GEO-6a Prior to issuance of a building permit, the County Building Official shall ensure that the construction drawings contain the following measures:

- a). Type V cement, and a minimum water/cement ratio of 0.50 and minimum compressive strength of 4,000 psi in accordance with current CBC and industry standards shall be used in the construction of the Project.
- b). Plastic pipes or other non-ferrous conduits shall be utilized for all underground utilities installed on the project site.

Any plans submitted by the Project applicant in support of a building permit shall specifically note the requirements of this mitigation measure.

MM GEO-6b The grading plans for each grading permit shall reflect conformance with the recommendations included in the Geotechnical Engineering Study on the proposed project site prepared by Youngdahl Consulting Group, Inc., titled "Geotechnical Engineering Study for Diamond Dorado Commercial Center Hwy 49 and (Future) Diamond Springs Pkwy, Placerville, California" (included in Appendix G of this EIR). Design, grading, and construction shall be performed in accordance with the requirements of the California Building Code applicable at the time of grading, appropriate local grading regulations, and the recommendations of the Project's geotechnical consultant as summarized in the Geotechnical Engineering Study.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

Proposed offsite roadway improvements associated with the DDRC Project contain varied terrain with some areas exceeding 40 percent slope. Prior to roadway construction, grading activities would reduce the severity of onsite slopes, and all remaining slopes would be engineered at a slope ratio at or less than 2:1. Because grading would engineer all roadway improvement slopes and because there are no hillsides adjacent to the roadway improvements susceptible to landslides, landslides are not expected to occur. Furthermore, soil conditions at offsite roadway improvement areas do not indicate the potential for lateral spreading, subsidence, liquefaction or collapse. However, as noted above in the onsite improvement analysis, unstable geologic conditions may be present on the project site as a result of corrosive soils and non-engineered fills. Site-specific subsurface soil conditions and groundwater conditions underlying each proposed intersection improvement would be verified during the Plans, Specifications, and Estimates phase, and any new roadway would be constructed to the County's standard design and construction guidelines; this would render project impacts related to corrosive soils and non-engineered fills less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Expansive Soil

Impact GEO-7: **The Project would not be located on expansive soil, as defined in Section 1803.5 of the 2010 California Building Code, creating substantial risks to life or property.**

Impact Analysis

Onsite Improvements

Expansive soils contain types of clay minerals that occupy considerably more volume when they are wet or hydrated than when they are dry or dehydrated. Volume changes associated with changes in the moisture content of near-surface expansive soils can cause uplift or heave of the ground when they become wet or, less commonly, cause settlement when they dry out. The materials that were encountered on the project site during subsurface explorations are non-plastic materials, which are considered to be relatively non-expansive in nature. Therefore, impacts associated with expansive soils would be less than significant and no mitigation measures are required.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

As with onsite improvements, offsite roadway improvement areas are underlain with soil that is primarily composed of non-plastic materials, which are considered to be relatively non-expansive in nature. Therefore, impacts associated with expansive soils would be less than significant and no mitigation measures are required.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

4.6 - Hazards and Hazardous Materials

4.6.1 - Introduction

This section describes the potential adverse impacts on human health, public safety and the environment from exposure to hazards and hazardous materials that could result from the construction and operation of the proposed DDRC Project. Hazards evaluated include those associated with existing, identified, or suspected contaminated sites, as well as potential exposure to hazardous materials used, generated, stored, or transported within or immediately adjacent to the project site.

Included in this section is a summary of applicable hazardous materials and public safety laws and regulations, as well as the agencies responsible for their implementation. Potential hazards and associated impacts related to toxic air contaminant emissions are discussed in Section 4.2, Air Quality, of this EIR.

Information referenced to prepare this section includes published technical information available through various websites and documents, which are referenced within this section, such as the County of El Dorado General Plan and County Code; California and federal codes; and three Phase I Environmental Site Assessments (Phase I ESAs) prepared in November 2007 (Appendix H.3), September 2007 (Appendix H.2), and December 2007 (Appendix H.1), all of which are located in Appendix H, Phase I Environmental Site Assessments of this Draft EIR.

4.6.2 - Environmental Setting

Hazardous Materials

Hazardous materials, as defined by the California Code of Regulations, are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Hazardous materials are grouped into the following four categories, based on their properties:

- Toxic - causes human health effects.
- Ignitable - has the ability to burn.
- Corrosive - causes severed burns or damage to materials.
- Reactive - causes explosions or generates toxic gases.

A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. The criteria that render a material hazardous also make a waste hazardous. If improperly handled, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, Sections 66261.20-24 contains technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as hazardous waste. In addition, the El Dorado

County Environmental Management Department maintains records for toxic or hazardous material incidents, and the Central Valley Regional Water Quality Control Board (RWQCB) maintains files on hazardous material sites.

Most hazardous materials regulations and enforcement in El Dorado County is overseen by the El Dorado County Environmental Management Department, which refers larger cases of hazardous materials contamination or violations to the Central Valley RWQCB and the State Department of Toxic Substances Control (DTSC). Other agencies, such as the El Dorado County Air Quality Management District (AQMD) and the Federal and State Occupational Safety and Health Administrations (OSHA), may also be involved when issues related to hazardous materials arise.

Phase I Environmental Site Assessment

The parcels that make up the project site (Assessor's Parcel Numbers [APNs] 051-250-12, 051-250-46, 051-250-47, 051-250-51, and 051-250-54) were the subject of three Phase I Environmental Assessments conducted by Youngdahl in 2007 (Appendix H). Each Phase I ESA included the investigation of one or two of the parcels that make up a portion of the project site. The procedures completed as a part of the three Phase I ESAs are collectively summarized below.

Records Search

Under the direction of Youngdahl, and as a part of the Phase I ESAs, Environmental Data Resources, Inc. (EDR) performed a search of federal, Tribal, state, and local databases listing contaminated sites, Brownfield sites (a development site having the presence or potential presence of a hazardous substance, pollutant, or contaminant), underground storage tank (UST) sites, waste storage sites, toxic chemical sites, contaminated well sites, and other sites containing hazardous materials. The record search covered an area much larger than the project site (located in Appendices H.1, H.2, and H.3 of this Draft EIR as Appendix B of each report). The records search results are discussed below.

Project Site

The four parcels that comprise the project site were not listed on any of the databases searched by EDR.

Surrounding Land Uses

EDR also searched for listed parcels surrounding the project study area. The record search yielded 13 sites within 0.5 mile of the project study area. Table 4.6-1 provides a summary of the adjacent listed parcels.

Table 4.6-1: Records Search Summary

Name	Location	Database(s)
Waste Management Western El Dorado Material Recovery Facility (MRF)	4100 Throwita Way	SWF/LF, SWRCY, CA WDS
Rack It Truck Racks	521 Truck Street	RCRA-SQG, FINDS
El Dorado Disposal Service	3940 Highway 49	HIST UST, SWEEPS UST, RCRA-SQG, FINDS, CERC-NFRAP
Abe Arens Brothers Environment	4066 State Court	RCRA-SQG, HAZNET
Sierra Design and Wallpaper	4060 Stage Court	RCRA-SQG, FINDS
Gustafson Property	3655 Chuckwagon	HAZNET, Cortese
Queen Property	4052 Stage Court	CA FID UST
E M Recycling	4040 Stage Court	SWRCY
El Dorado Disposal Service	580 Truck Street	SWRCY
Teters Auto Wreckers	4887 Missouri Flat Road	ENVIROSTOR
Celebrity Plating	4502 Missouri Flat Road	ENVIROSTOR
Former Service Station	493 Main Street	LUST, Cortese
Sierra Door	4415 Missouri Flat Road	LUST, Cortese, CA FID UST, SWEEPS UST

Abbreviations:

CA FID UST = Facility Inventory Database. Contains a historic listing of active and inactive underground storage tank locations from the State Water Resources Control Board.

CA WDS = California Waste Discharge System database includes sites which have been issued waste discharge permits by the State Water Resources Control Board.

CERC-NFRAP = Archived CERCLIS sites that are not eligible for listing on the National Priorities List.

Cortese = Database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with underground storage tanks (USTs) having a reportable release, and all solid waste disposal facilities from which there is known migration.

ENVIROSTOR = The Department of Toxic Substance's Site Mitigation and Brownfield Reuse Program's database of sites that have known contamination or sites for which there may be reasons to investigate possible contamination.

FINDS = Facility Index System/Facility Registry System. Contains both facility information and pointers to other sources that provide more information about hazardous materials usage.

HAZNET = Facility Manifest Data. Data extracted from copies of hazardous waste manifests.

HIST UST = Hazardous Substance Storage Container Database. Historical listing of undergoing storage tank sites.

LUST = The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents.

RCRA-SQG = Resource Conservation and Recovery Act Small Quantity Generator. Small quantity generator of hazardous wastes governed by RCRA

SWF/LF = Solid Waste Information System (SWIS). Lists active, closed, and inactive solid waste disposal facilities or landfills.

SWRCY = A list of recycling facilities in California.

SWEEPS UST = Statewide Environmental Evaluation and Planning System. Lists underground storage tank locations. No longer updated.

Source: Youngdahl Consulting Group, Inc. 2009.

According to the three Phase I ESAs prepared for the project site, none of the 13 listed sites in Table 4.6-1 appear to be present a significant potential to impact the project site. For further discussion, refer to Appendix H, Environmental Site Assessments.

EDCEMD File Review

As part of the Phase I ESA process, listed parcels were reviewed at the El Dorado County Environmental Management Department (EDCEMD). Information from selected sites is included in the Phase I ESAs. The following provides a discussion of selected EDCEMD files.

Waste Management Western El Dorado Material Recovery Facility (MRF)

This property is an active CUPA (Certified Unified Program Agency) site. The El Dorado Disposal/Waste Connection property is identified in the EDR Report as a solid waste transfer/processing facility handling construction/demolition, inert metal, and wood waste. This site is also listed as the Western El Dorado Recycling Service (WEDRS) Green Waste Recycling Center as a chipping, grinding, and composting facility. The site contains facilities that serve as a large-volume transfer and processing facility for liquid or semi-solid wastes from industrial facilities.

This site is identified as having a minor threat to water quality, with a primary waste stream of stormwater runoff. EDCEMD oversees the household hazardous waste collection processes at the WEDRS facility. According to the EDCEMD, Placer County is the Lead Enforcement Agency (LEA) for the MRF. According to Mr. Lem Estolas with Placer County Solid Waste Department, the WEDRS facility has three operating permits: one for green waste, one for construction and demolition waste, and one for municipal solid waste (MSW). Mr. Estolas also indicated that there are no existing violations or enforcement actions for the Waste Connections property (Youngdahl 2009).

Sierra Door

According the EDR report, the Sierra Door facility has a status of "Pollution Characterization" for groundwater impacted by gasoline contamination. The site has been referred to the Regional Water Quality Control Board (RWQCB).

According to EDCEMD, the Sierra Door facility, located at 4415 Missouri Flat Road, is less than 0.5 mile to the west-northwest of the project site and is identified in the EDR Report as containing gasoline-contaminated groundwater. The release was reported in 1991. The most recent document in the EDCEMD file is a June 2006 letter from the RWQCB requesting additional soil and groundwater investigations. Contaminated groundwater from the site flows to the northwest, away from the project site.

Aerial Photographs

Aerial photographs from 1935, 1952, 1962, 1984, 1993, and 1998 were provided in the EDR Aerial Photo Decade Package, reviewed by Youngdahl and included in the Phase I ESAs. Photographs dated 1971 and 1977, and a 2006 digital image from www.teraserver.com were also reviewed. Interpretations were made in an effort to evaluate former uses of the project site and adjacent areas, and to determine if any significant topographic or cultural changes have occurred. Table 4.6-2 provides a summary the project site's appearance on the reviewed photographs.

Table 4.6-2: Aerial Photograph Summary

Date	Project Site Description	Surrounding Area Description
1935	The project site contains the Diamond Lime Plant and undeveloped lands. A railroad spur enters the property from the northwest corner along the northern portion of the property, terminating at the Diamond Lime Plant.	Orchards are present north and northeast of the project site. Areas west, south, and east of the project site appear to be undeveloped land or possibly rural residential property.
1952 and 1962	The Diamond Lime Plant is still present on the project site and has expanded to the south.	Orchards north of the property are still present but the westernmost orchard has been removed. Adjacent property to the east, south, and west appear either to be undeveloped or rural residential land.
1971 and 1977	The Diamond Lime Plant is still present on the project site.	Orchards are no longer present in the project vicinity. Industrial development is present to the northeast of the project site.
1984	The project site includes industrial and commercial property. The Diamond Lime Plant is no longer present; however, the foundations/footings of the removed structures are present. One large structure is present in the northwest portion of the project site. Grading is evident on the eastern portion of the project site.	Adjacent property is industrial, commercial, rural residential and undeveloped land. The building currently occupied by the MRF is present to the south. Warehouses are present to the west.
1993	The project site consists of highly disturbed industrial property.	Adjacent properties to the north and west include increased development of industrial and commercial activities when compared to the 1984 photograph. Rural residential and undeveloped land is shown north, east and south of the project area.
1998	The project site consists of highly disturbed industrial property.	Adjacent properties include to the north and west include industrial and commercial land uses. Rural residential and undeveloped land is shown north, east and south of the project area.

Source: Youngdahl Consulting Group, 2007.

Topographic Maps

Historic United States Geological Survey topographical maps of the Placerville Quadrangle dating to 1893 were obtained as part of the Phase I ESA process. The changes that occur to the project site and surroundings are summarized in Table 4.6-3.

Table 4.6-3: Topographic Map Summary

Date	Project Site Description	Surrounding Area Description
1893	No features are depicted on the project site.	The Sacramento and Placerville Railroad line is shown to the north. Highway 49 (SR-49) is depicted east of the project site.
1949	The Diamond Lime Plant is shown on the project site. Three structures are shown east of Lime Plant Road. A railroad spur is present in the northern portion of the property. A cable-way is identified traversing between the Diamond Lime Plant and a quarry east of the project site.	Properties surrounding the project site are depicted as containing a mix of rural residential and undeveloped land.
1950	The Diamond Lime Plant, three structures, railroad spur and cable-way are still present on the project site.	A surface water drainage flowing north towards Weber Creek is located west of the project site. Three small ponds are noted to the south of the project site. Other surrounding properties are depicted as a mix of rural residential and undeveloped land.
1973	The Diamond Lime Plant, three structures and railroad spur are still present on the project site. The cable-way is no longer depicted.	A large pond south of the project site is shown in place of the previous depicted three small ponds. Other surrounding properties are depicted as a mix of rural residential and undeveloped land.
Source: Youngdahl Consulting Group, 2007.		

Site Reconnaissance

As part of the Phase I ESAs, Youngdahl conducted two site reconnaissances of the proposed project site in August and November 2007. The reconnaissance visits consisted of visual and physical observation to the extent of the project site, not obstructed by bodies of water, adjacent buildings, or other obstacles. In accordance with the All Appropriate Inquires (AAI) rule (as stated in 40 CFR Part 312), visual inspection of adjoining properties was performed from each of the project site's property lines, public rights-of-way (ROW), or other vantage point. The reconnaissance documented any structure(s) located on the project study area that was not obstructed by bodies of water, adjacent buildings, or other obstacles. Current and past uses of adjoining properties and properties in the surrounding area were identified if they were likely to indicate recognized environmental conditions in connection with the adjoining properties or the property. The topographic conditions were also noted to the extent they were visually and/or physically obvious, to evaluate whether hazardous substances or petroleum products would be likely to migrate within or from a parcel, into groundwater or soil.

Observations at the project site revealed that the site is used mainly for storage for several different purposes. Stockpiles of soil, concrete and asphalt debris, and rock and lime used for road base manufacturing were observed in the western portion of the project site. Rebar and other metallic debris were observed in the concrete and asphalt piles. Approximately 50,000 cubic yards of excess

soil present on the project site is from a nearby Walmart site on Missouri Flat Road. White mounds consisting of lime sediment extracted from the settling pond formerly located on the MRF property were observed in the southwestern portion of the project site.

At the time of the site reconnaissance, an area within the south-central portion of the project site (APN 051-250-12) was being used for the storage of portable firefighting mobilization units (used for sleeping, laundry, showering, refrigeration, and bathrooms by fire crews on location during wildfires). A large tent was observed containing gasoline cans, cleaners, generators, and other tools assumed to be associated with the mobilization unit storage and maintenance. Two mobile homes were observed in the southeast corner of the project site, but were not occupied or connected to utilities. Interviews with the property owner (Mr. Larry Abel) indicated that a mobile home had previously been lived in on the property site and was connected to El Dorado Irrigation District sewer and water services. A recently remodeled structure was observed in the central portion of APN 051-250-46, near the end of Throwita Way. The structure consists of two large garage bays and an attached office and is served by El Dorado Irrigation District's sewer and water services.

Within the north-central portion of the project site, bridge-building materials, an aboveground storage tank (AST) containing red diesel fuel, an empty AST, PVC piping, and various other construction materials were observed. Interviews indicated that the materials were associated with the construction of a nearby bridge and were being temporarily stored onsite. Minimal soil staining was noticed beneath the AST at the time of the site visit (refer to Photo 2 of the Phase I ESA for APN 051-250-46-100 included in Appendix H.3). A subsequent visit to the project site indicated that secondary containment was installed beneath the AST. The AST was scheduled for removal by December 1, 2007. No other containers of unknown substances or hazardous materials were observed on the project site.

Interviews

As a part of the site reconnaissance for the three Phase I ESAs, interviews were conducted with Mr. Leonard Grado (the Project applicant), Mr. Larry Abel (owner of APN 051-250-12), Mr. Michael Murray (owner of APN 051-250-12), and Mr. Albert Magallanez (Manager for the adjacent MRF). Information obtained from the interviews did not indicate the presence of hazardous materials on the project site or on the MRF property that could affect the project site.

The El Dorado County Environmental Management Department (EDCEMD) was contacted to evaluate the status of the project site and nearby LUST sites. According to the EDCEMD, there is no information regarding unauthorized releases or incidents involving hazardous materials on the project site. There is no file for the Diamond Lime Plant on Lime Kiln Road. According to EDCEMD, no known releases of hazardous materials have been identified on the project site.

Hazardous Materials Survey

The three Phase I ESAs completed by Youngdahl Consulting Group included a survey of hazardous materials present on the project site. In addition, MBA conducted research regarding the presence of hazardous materials on the project site to further support information provided in the Phase I ESAs. A combined summary of Youngdahl's and MBA's findings follows.

Lead

Lead-Based Paint

Lead oxide and lead chromate were commonly used in paints until 1978, when regulations limited the allowable lead content in paint. Therefore, interior and/or exterior painted surfaces on buildings constructed prior to 1978 have the potential to contain lead-based paint. Yellow thermoplastic and yellow paint, used for traffic striping and pavement marking on Throwita Way, may contain elevated concentrations of lead, regardless of manufacture date. Therefore, pavement markings and interior and/or exterior painted surfaces on buildings constructed prior to 1978 likely contain lead-based paint.

Aerially Deposited Lead

Aerially deposited lead may occur in roadside soils as the result of lead deposition from vehicle exhaust. This lead is attributed to the use of lead in gasoline, which was phased out beginning in the mid-1970s.

Historical maps and aerial photographs show that State Route 49 (SR-49) was constructed in the 1930s and 1940s, prior to the phase-out of lead in gasoline. As a result, it is likely that soils adjacent or within the project area may contain lead amounts above the Total Threshold Limit Concentration (TTLC), which is 1,000 mg/kg. Soils that exceed the TTLC would be classified as a hazardous waste and, if excavated, would require special handling and disposal procedures. Caltrans's experience is that soils within 30 feet of a roadway have the potential to be affected by aerially deposited lead. All lead-affected soils with a pH less than 5.0 must be covered with pavement or similar impervious surface. Therefore, it is Caltrans's policy that all shallow soils near highways potentially contain elevated concentrations of aerially deposited lead, and soils within Caltrans's ROWs that will be disturbed during construction are routinely tested for total and/or soluble lead to properly classify the soils and ensure that all necessary soil management and disposal procedures are followed.

Asbestos

Airborne asbestos is a known human carcinogen. Asbestos was commonly used in construction materials until the 1980s, when its use was phased out. Accordingly, building materials manufactured prior to the 1980s have the potential to contain asbestos fibers, which could be released during demolition activities. Within the project site, a single building was observed on APN 051-250-46. Interviews with the property owner indicated the building has been recently remodeled. Therefore, asbestos-containing building materials do not appear to be a significant environmental concern.

According to the California Department of Mines and Geology report “Areas More Likely to Contain Natural Occurrences of Asbestos in Western El Dorado County, 2000,” the project site is not likely to contain any naturally occurring asbestos hazards. In addition, the El Dorado County Department of Environmental Management Asbestos Review Areas Map indicates that the project site is not likely to contain naturally occurring asbestos.

Polychlorinated Biphenyls (PCBs)

Polychlorinated biphenyls (PCBs) are mixtures of human-made chemicals with similar chemical structures. PCBs can range from oily liquids to waxy solids. Because of their non-flammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications, including electrical, heat transfer, and hydraulic equipment; as plasticizers in paints, plastics, and rubber products; in pigments, dyes, and carbonless copy paper; and many other applications. More than 1.5 billion pounds of PCBs were manufactured in the United States prior to cessation of production in 1977.

PCBs are often found in electric transformers. The Phase I ESAs completed for the project site did not indicate the presence or absence of transformers that may contain PCBs on the project site.

Radon

Radon is a carcinogenic, radioactive gas resulting from the natural decay of uranium in soil, rock, and water. Radon gas enters a building through cracks in foundations and walls. Once inside the building, radon decay products may become attached to dust particles and inhaled, or the decayed radioactive particles alone may be inhaled and cause damage to lung tissue. Radon exposure is the leading cause of lung cancer among nonsmokers in the United States. The U.S. Environmental Protection Agency (EPA) has established a safe radon exposure threshold of 4 picocuries per liter (pCi/L) of air.

The EPA has rated El Dorado County as a moderate potential radon zone (Zone 2), with an average indoor screening level of between 2 and 4 pCi/L.

The California Department of Health Services Radon Database, dated October 2002, indicates that radon test results for the 95667 zip code, in which the project site is located, yielded two of 26 samples (7.7 percent) containing radon concentrations above 4.0 pCi/L. Typically, radon concentrations above 4.0 pCi/L are of great concern, particularly in residential housing units, where inhabitants are prone to high exposure rates. Given the low percentage of concentrations above 4.0 pCi/L and that the Project is not developing any residential housing units, soil gas concentrations of radon are not anticipated to be a significant concern to human health on the project site parcels.

Aboveground and Underground Storage Tanks

Petroleum hydrocarbons are derived from crude oil, which is refined into various petroleum products such as diesel, gasoline, kerosene, lubricants, and heavy fuel oils. Hydrocarbons constituents include

benzene, N-heptane, and toluene, and they generate health effects such as cancer, leukemia, asthmatic bronchitis, kidney damage, and eye irritation. Hydrocarbon containing petroleum products are stored in ASTs and USTs. Leaking ASTs and USTs can result in contamination of groundwater sources or fire and explosion.

Two ASTs were observed during the Phase I ESAs site reconnaissance conducted in August and November 2007. One AST was empty, while the other was being used to store red diesel fuel. Minimal soil staining was observed beneath the in-use AST at the time of the site visit. A subsequent visit to the project site indicated that secondary containment had been installed beneath the AST after the first site visit. The AST was scheduled for removal by December 1, 2007 and is no longer located on the project site. No USTs are known to be present on the project site.

Two bulk propane distributors are located on Bradley Drive and Truck Street, north of the project site. The propane distributors would be approximately 300 and 450 feet from the DDRC's northern property line and located across the Diamond Springs Parkway. Approximately five large-volume propane tanks of approximately 25,000 to 30,000 gallons are maintained by the propane distributors. These tanks are maintained by the propane distributors according to applicable regulations and would not be disturbed by the Proposed Project.

High-Voltage Power Lines

High-voltage power lines emit electromagnetic fields, which have been alleged to be a cause of cancer. However, scientific research has never conclusively established a link between electromagnetic fields and cancer. A high-voltage power line is located in the far northern portion of APN 051-250-54. The Diamond Springs Parkway will be constructed in this area as a part of a separately proposed project. No high-voltage power lines are located within the area proposed for development of the DDRC.

Wildland Fires

The project site is surrounded by parcels containing industrial uses, commercial uses, and rural residences. The project site is located in a zone identified by the El Dorado County General Plan as having a moderate fire hazard rating. According to the California Fire Alliance's Fire Planning and Mapping Tools database, the Project is in an area dominated by fuels classified as "low" in terms of wildland fire risk (California Fire Alliance 2010).

4.6.3 - Review of Previously Conducted Environmental Studies

The following is a review of previously conducted environmental studies regarding potential hazards and hazardous materials near the project site.

El Dorado Disposal Services Phase I ESA by Golder Associates

Golder Associates prepared an ESA for the El Dorado Disposal Services Operations in June 2006 (referred to as the 2006 Golder Associates ESA). The 2006 Golder Associates ESA included the

MRF at 4100 Throwita Way and the Truck Street properties at 3940 Highway 49, near the project site. The MRF was described as a property that uses and/or generates petroleum products in the form of diesel fuel, motor oil, antifreeze, and various automotive fluids. These products are temporarily stored onsite prior to product use and/or pickup for recycling or disposal. Minor oil staining was observed on the floor of the MRF. The staining was evaluated to be negligible and not a recognized environmental condition. The 2006 Golder Associates ESA stated that the MRF may have an oil/water interceptor. During Youngdahl Consulting Group, Inc.'s interview with Mr. Magallanez (the MRF manager) during the November 2007 site visit (for the preparation of the three Phase I ESAs for the Proposed Project), it was indicated that no oil/water interceptor exists at the MRF site. The 2006 Golder Associates ESA noted that sewage is handled by a septic system on the MRF property. The Golder Associates Report concluded that no recognized environmental conditions were identified as defined by ASTM 1527-00.

Diamond Springs Parkway Project Phase I ESA by Youngdahl Consulting Group, Inc.

Laurie B. Israel, a Registered Environmental Assessor from Youngdahl Consulting Group, Inc., prepared a Phase I ESA for the 63 parcels affected by the separately proposed and approved Diamond Springs Parkway Project in January 2009 (referred to as the 2009 ESA), which included investigation of three of the four DDRC project site parcels (APNs 051-250-12, 051-250-46, and 051-250-54). While the 2009 ESA was prepared after the three Phase I ESAs were prepared for the Proposed Project, pertinent information was included, and, therefore, a summary is provided here within. The 2009 ESA concluded that, due to the presence of orchards in the 1935, 1952, and 1963 historical aerial photographs, sampling for agricultural chemicals, lead, and arsenic should be conducted where soil is to be disturbed on several parcels, including APNs 051-250-12 and 051-250-46 of the Proposed Project. However, further examination of the historical aerial photographs does not show any agricultural uses taking place on these parcels or within the proposed project site. The 2009 ESA also concluded that aerially deposited lead may be present on APN 051-250-12 within 30 feet of Diamond Road (SR-49), which is the eastern border for the proposed DDRC. Furthermore, the 2009 ESA recommended that, due to the historical presence of the Diamond Lime Plant, soil-disturbing activities should be observed for potential indication of hazardous material releases or disposal areas on APNs 051-250-46-100 (Appendix H.3) and 051-250-54-100 (Appendix H.2).

4.6.4 - Regulatory Framework

Federal

Resource Conservation and Recovery Act

The 1976 Federal Resource Conservation and Recovery Act (RCRA) and the 1984 RCRA Amendments regulate the treatment, storage, and disposal of hazardous and non-hazardous wastes. The legislation mandated that hazardous wastes be tracked from the point of generation to their ultimate fate in the environment. This includes detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities.

The 1984 RCRA amendments provided the framework for a regulatory program designed to prevent releases from USTs. The program establishes tank and leak detection standards, including spill and overflow protection devices for new tanks. The tanks must also meet performance standards to ensure that the stored material will not corrode the tanks. Owners and operators of USTs had until December 1998 to meet the new tank standards. As of 2001, an estimated 85 percent of USTs were in compliance with the required standards.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 induced active federal involvement to emergency response, site remediation, and spill prevention, most notably the Superfund program. The act was intended to be comprehensive in its encompassment of both the prevention of, and response to, uncontrolled hazardous substances releases. The act concerns environmental response, providing mechanisms for addressing emergencies and chronic hazardous material releases. In addition to establishing procedures to prevent and remedy hazardous materials releases, it establishes a system for compensating appropriate individuals who undertake remediation and assigning appropriate liability. It is designed to plan for and respond to failures in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

State

California Health and Safety Code

The California Environmental Protection Agency (Cal-EPA) has established rules governing the use of hazardous materials and the management of hazardous wastes. California Health and Safety Code Section 25531, et seq. incorporate the requirements of the Federal Superfund Amendments and Reauthorization Act and the Federal Clean Air Act as they pertain to hazardous materials. Health and Safety Code Section 25534 directs facility owners storing or handling acutely hazardous materials in reportable quantities to develop a Risk Management Plan (RMP). The RMP must be submitted to the appropriate local authorities, the designated local administering agency, and the Cal-EPA for review and approval.

CalOSHA Lead in Construction Standard

The CalOSHA Lead in Construction Standard requires the use of special work practices during the disturbance of paint with any detectable amounts of lead. Waste materials with a concentration greater than 0.1 percent or 1,000 parts per million (ppm) for total lead are considered hazardous waste in California. Waste materials with a total lead concentration between 0.005 percent (50 ppm) and 0.10 percent (1,000 ppm) must be re-analyzed using the waste extraction test method to determine the soluble lead content for waste disposal requirements. Additionally, waste material containing greater than 0.035 percent (350 ppm) lead is subject to disposal restrictions according to California Health and Safety Code Section 2515 7.8.

Contractors are also required to notify the Division of Occupational Safety and Health (DOSH) prior to disturbing greater than 100 square feet or 100 linear feet of material containing lead greater than 0.5 percent by weight, 5,000 ppm, or 1.0 milligram per square centimeter.

Local

El Dorado County General Plan

As part of the Proposed Project, a proposed General Plan Amendment and rezone would designate the site for commercial uses. As such, the Project would be required to comply with the following General Plan policies pertaining to the new Commercial designation:

Table 4.6-4: Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
Goal 6.2 - Fire Hazards: Minimize fire hazards and risks in both wildland and developed areas.	Consistent: Appropriate fire protection measures would be implemented within the Project as required by the California Fire Code to protect it from fires, including the installation of a fire hydrant system with sufficient capacity, fire sprinklers, smoke detectors, and 4-hour fire walls.
Goal 6.6 - Management of Hazardous Materials: Recognize and reduce the threats to public health and the environment posed by the use, storage, manufacture, transport, release, and disposal of hazardous materials.	Consistent: The Proposed Project consists of the development of a commercial retail center that would not use, store, manufacture, transport, release or dispose of significant quantities of hazardous materials. Mitigation included in this Draft EIR would ensure any hazardous materials encountered during project construction would be properly disposed of. Hazardous materials routinely stocked and sold in stores and at fueling stations are addressed by existing regulations. Accordingly, the Proposed Project would not have the potential to expose the community to the harmful effects of hazardous materials.
Policy 6.6.1.2: Prior to the approval of any subdivision of land or issuing of a permit involving ground disturbance, a site investigation, performed by a Registered Environmental Assessor or other person experienced in identifying potential hazardous wastes, shall be submitted to the County for any subdivision or parcel that is located on a known or suspected contaminated site included in a list on file with the Environmental Management Department as provided by the State of California and federal agencies. If contamination is found to exist by the site investigations, it shall be corrected and remediated in compliance with applicable laws, regulations, and standards prior to the issuance of a new land use entitlement or building permit.	Consistent: As a part of this Draft EIR, three Phase I Environmental Site Assessments have been conducted by a Youngdahl Consulting Group, Inc. Registered Environmental Assessor. Recognized Environmental Constraints were not identified on the project site. The project site is not included in a list on file with the El Dorado County Environmental Management Department. Proposed mitigation would correct or remediate any previously unidentified contamination within the project site that may pose a hazard during construction.
Source: El Dorado County General Plan, 2004; MBA, 2010.	

El Dorado County Ordinance Code**Chapter 8.38.000 Hazardous Materials**

Chapter 8.38.000 regulates the handling, storage, use, transport, processing and disposal of hazardous materials. This ordinance requires the reporting of hazardous material use, disclosure of hazardous material releases, and the prevention and mitigation of impacts related to hazardous materials.

El Dorado County Hazardous Materials Program

El Dorado County Environmental Management's Hazardous Materials Program protects human health and the environment by ensuring hazardous materials and hazardous waste are properly managed through permit and inspection processes, as well as public educational programs. The Hazardous Materials Program provides services regarding small-quantity, hazardous-waste-generator disposal options; emergency response and spills; hazardous materials plans; household hazardous waste collection; medical waste; site investigation and remediation; and stormwater pollution prevention.

4.6.5 - Methodology

All Phase I ESA activities were performed in accordance with the Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, established by the American Society for Testing and Materials in Method E1527-05, and in accordance with Appendix DD of the Caltrans Project Development Procedures Manual, "Preparation Guidelines for Initial Site Assessment (ISA) Checklist for Hazardous Waste" (Caltrans 1999).

Evaluation of the impacts in this section is based on professional standards and the results of technical reports prepared for the Project.

4.6.6 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, hazards and hazardous materials impacts resulting from the implementation of the Proposed Project would be considered significant if the Project would:

- a.) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b.) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?
- c.) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (Refer to Section 6.5, Effects Found Not To Be Significant.)

- 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?
- 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 the project area? (Refer to Section 6.5, Effects Found Not To Be Significant.)
- f.) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? (Refer to Section 6.5, Effects Found Not To Be Significant.)
- g.) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- h.) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

4.6.7 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate.

Routine Use and Risk of Upset

Impact HAZ-1:	The Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions.
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Impact Analysis

This impact is associated with hazards caused by the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations, including the preparation of a Hazardous Materials Business Plan, as applicable. Compliance would ensure that humans and the environment are not exposed to hazardous materials. In addition, Mitigation Measure HYD-1 requires the Project applicant to implement a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the project site. As such, impacts would be less than significant during construction activities.

Upon project completion, the project site would consist of a commercial retail center (DDRC), and MRF access road. Commercial retail centers do not generally require the use, production or disposal of large quantities of hazardous materials. It is likely that small quantities of hazardous materials would be used or sold onsite, and may include cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and bases (such as many cleaners), disinfectants, and fertilizers. Stores would be required to use, store, and sell these materials in a safe manner and according to all applicable federal and State regulations. The potential risks posed by the use and storage of these hazardous materials are primarily limited to the immediate vicinity of the materials. Any in-store spills would be immediately contained and removed according to standard store procedures. Transport of these materials would be performed by commercial vendors who would be required to comply with various federal and state laws regarding hazardous materials transportation.

Substances such as fertilizers and pesticides would be used onsite for the care and maintenance of landscaping. These substances would not be stored onsite and would be used by professionals in accordance with applicable guidelines and regulations.

The access road would not require the routine use of hazardous chemicals. Vehicles traveling along the access road may contain hazardous chemicals but would be required to comply with all applicable federal and state regulations regarding the transportation of such materials.

Operation of the proposed gas station would include the transport and use of petroleum chemicals. The El Dorado County Department of Environmental Management's Hazardous Materials Division provides regulation and oversight for hazardous materials, such as gasoline, that are stored in USTs. The proposed gas station would be required to abide by all applicable federal, state, and local regulations regarding USTs. As required by the El Dorado County UST Ordinance No. 4332 (Included in Chapter 8.40 of Title 8 of the El Dorado County Ordinance), the UST operators obtain a permit. In addition, the UST operator would be required to prepare a Hazardous Materials Management Plan and abide by the El Dorado County Hazardous Waste Management Plan.

In summary, the Proposed Project would be conditioned to abide by all applicable federal, State, and local regulations regarding the routine transport, use, or disposal of hazardous materials. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure HYD-1.

Level of Significance After Mitigation

Less than significant impact.

Hazardous Materials Site Listing

Impact HAZ-2:	The Project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment.
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Impact Analysis

As a part of the three Phase I ESAs completed for the Proposed Project (Appendices H.1, H.2, and H.3), EDR conducted a commercial database search of federal, Tribal, state and local regulatory lists to assess whether documented environmental conditions exist within the project site. The project site was not identified in the EDR search results. A total of 13 listed sites were identified within 0.5 mile of the project site. All three Phase I ESAs concluded that none of the surrounding listed sites have the potential to impact the project site. Accordingly no impacts from listed hazardous materials sites would occur.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No impact.

Past and Present Site Usage

Impact HAZ-3:	The development of the Proposed Project has the potential to result in the exposure of persons or the environment to hazardous materials associated with past and current uses of the project site.
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The Phase I ESAs identified several issues associated with past and present uses of the project site that could potentially result in the exposure of persons and the environment to hazardous materials including lead, PCBs, and industrial chemicals.

Lead

Lead-Based Paint

Pavement marking and painted surfaces constructed prior to 1978 within the project study area likely contain lead-based paint. The Proposed Project would require the removal of Throwita Way. Therefore, construction activities related to the Project could result in exposure to lead-containing materials during pavement removal. Exposure and potential contamination related to lead-containing materials are considered to be potentially significant impacts. Mitigation Measure HAZ-3a would

require the implementation of Caltrans standard special provisions for removal of existing yellow thermoplastic and yellow paint used for pavement markings.

Aerially Deposited Lead

Aerially deposited lead may occur in roadside soils as the result of lead deposition from past vehicle exhaust. Accordingly, portions of APN 051-250-12 within 30 feet of SR-49 may include aerially deposited lead. The disturbance of lead-containing soils has the potential to create health hazards and could further spread the contaminated soils. Construction activities such as demolition, grading and the unearthing of soils could disturb lead-affected soils, dispersing lead particles through the air where they may affect construction workers, the general public, and the environment. Mitigation Measure HAZ-3b would require a preliminary site investigation to identify the levels of aerially deposited lead in locations along SR-49 where construction activities would require soil disturbance.

PCBs

Any transformers installed prior to 1979 within the project site may contain PCBs. No mention of the presence or absence of transformers was noted in the Phase I ESAs. Mitigation Measure HAZ-3c would require a survey to be conducted for PCB-containing transformers onsite and would require their removal and disposal to be conducted according to PG&E's standards.

Industrial Chemicals

The Phase I ESAs concluded that portions of the project site were formerly a part of the Diamond Lime Plant. Accordingly, it is likely that hazardous materials and petroleum products were stored and used on the project site during its use as a lime processing facility. Because of the lack of information regarding the configuration of the lime plant, the former location of possible storage areas or disposal sites is unknown. Lime deposits may also be present on the project site as a result of the former lime processing facility. Implementation of Mitigation Measure HYD-1 requires the Project applicant to implement a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the project site, including stormwater that may have an elevated pH as a result of contact with lime deposits. While the Diamond Lime Plant is no longer located on the project site, soil disturbance at its former location may encounter previously unknown hazardous materials or disposal areas. Inadvertent exposure of hazardous materials, disposal areas, or contaminated soils may cause harmful effects to construction workers and others in the project vicinity. Mitigation Measure HAZ-3d would require monitoring to take place during any soil-disturbing activities.

Other Hazards Related to Former Site Use

Lime deposits may be present on the project site as a result of the former lime processing facility. During construction activities, stormwater may come in contact with any onsite lime deposits, resulting in stormwater with an increased pH level. Implementation of Mitigation Measure HYD-1 requires the Project applicant to implement a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the project site, including

stormwater that may have an elevated pH as a result of contact with lime deposits. Implementation of Mitigation Measure HYD-1 would ensure impacts would be less than significant if lime deposits are encountered by stormwater.

Based on the Geotechnical Engineering Study for Diamond Dorado Commercial Center, included in this EIR as Appendix G, portions of APN 051-250-51 and APN 051-250-54 contain areas potentially used as sludge ponds in the past. Former sludge ponds may contain hazardous chemicals or result in contaminated soils, which may present a potentially significant hazardous impact including the increase of stormwater pH levels. Additionally, the northwestern corner of APN 051-250-54, where a stormwater retention basin may be constructed and require excavation, is located within an area identified as historically containing a sludge pond. Implementation of Mitigation Measure HAZ-3d would require monitoring to take place during any soil-disturbing activities and would ensure the identification and proper remediation of any onsite historical sludge ponds. As such, impacts would be reduced to less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure HYD-1 and the following:

MM HAZ-3a Caltrans standard special provisions for removal of the existing yellow thermoplastic and yellow paint used for pavement markings throughout the project area shall be implemented, and disposal of these materials will occur at a Class 1 disposal facility in accordance with Department of Toxic Substance Control's hazardous materials laws and regulations. All work shall be conducted in accordance with applicable construction worker health and safety requirements, including CalOSHA Construction Safety Orders for lead (Title 8 CCR Section 1532.1). These requirements may include air monitoring during construction, worker training, and preparation of a Lead Compliance Plan prior to construction.

MM HAZ-3b A preliminary site investigation will be conducted prior to construction to identify levels of aerially deposited lead (ADL) in soils within 30 feet of SR-49 that are to be disturbed during project construction. Soil samples shall be tested prior to construction for total and/or soluble lead to properly classify the soils and ensure that all necessary soil management and disposal procedures are followed.

If ADL is encountered, the Project applicant or its contractor will prepare a Lead Compliance Plan in compliance with Title 8, California Code of Regulations, Section 1532.1 "Lead." The Plan will include monitoring, and average ADL concentrations shall not exceed 1.5 microgram per cubic meter of air per day. If concentrations

exceed this level, the contractor shall stop work and modify the work to prevent release of ADL. The Plan will also include safety training for construction personnel. Excavation, reuse, and disposal of material with ADL shall be in conformance with all rules and regulations of responsible federal and State agencies.

- MM HAZ-3c** Prior to the start of project activities, the Project applicant will contact PG&E to determine the presence or absence of potentially polychlorinated biphenyls (PCB)-containing transformers within the project site. If PCB containing transformers are located on the Project and require disturbance or removal, the Project applicant will adhere to PG&E's standard handling procedures that include safety measures to contain PCBs substances and implement proper disposal.
- MM HAZ-3d** A Registered Environmental Assessor (REA) that is certified by the California Department of Toxic Substances Control shall provide onsite monitoring of construction activities for parcels formerly part of the Diamond Lime Plant (APNs 051-250-51 and 54) to observe for the potential indication of hazardous materials releases, disposal areas or contaminated soils. If the REA identifies environmental conditions that require remediation or require further investigation, construction activities shall cease to allow the Project applicant to prepare and submit a site remediation permit application and draft work plan to the El Dorado County Department of Environmental Management. To document the implementation of the prescribed mitigation measure, the contracted REA must provide a memorandum of observations to the El Dorado County Department of Environmental Management.

Level of Significance After Mitigation

Less than significant impact.

Emergency Plan

Impact HAZ-4: The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Impact Analysis

The Public Health, Safety, and Noise Element of the El Dorado County General Plan recognizes and responds to public health, safety and noise risks that could cause exposure to residents of El Dorado County. Implementation of County and State emergency response and mutual aid plans enable the community to avert or minimize impacts to the extent practical and feasible and allow restoration of the County in a timely manner after an event. Specifically, the El Dorado County Multi-Jurisdiction Hazard Mitigation Plan ensures that measures to reduce the present and future vulnerability of the County are thoroughly considered before, during, and after the next disaster strikes.

The Proposed Project would involve the relocation of the MRF site access, including the removal of Throwita Way south of the Diamond Springs Parkway. A new MRF access route, connected to Lime

Kiln Road, would be constructed as a part of the Proposed Project to replace the Throwita Way access route. The new access route would be constructed prior to the removal of Throwita Way. The portion of Throwita Way to be removed connects only to the MRF and parcels that are currently undeveloped but are included as a part of the Proposed Project. The portion of Throwita Way to be removed currently serves as the MRF's only access point and emergency evacuation route. No other facilities use the southern portion of Throwita Way for site access or emergency evacuation. Evacuation procedures for the MRF would be revised to reflect the new access route constructed as a part of the Proposed Project. Construction of the new MRF access route may require temporary lane closures on Lime Kiln Road. Traffic on Lime Kiln Road would be rerouted to use the portion of the ROW not being affected. No other roadways would be affected by the Proposed Project. Project construction activities would be coordinated with local law enforcement and emergency services providers. As a result of this coordination, law enforcement and emergency service providers would be aware of project construction and the potential for any emergency vehicle movement delays within the project area, and measures to avoid such delays would be determined. The Proposed Project's construction and operation would not affect the provision of emergency services or area evacuation in the event of a major emergency. This impact is considered less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Wildland Fires

Impact HAZ-5:	The Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires (including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.
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Impact Analysis

The project site is surrounded by industrial, rural residences, and undeveloped land. According to the El Dorado County General Plan, the project site is located in a moderate fire hazard area. However, according to the California Fire Alliance's Fire Planning and Mapping Tools database, the Project is in an area dominated by fuels classified as "low" in terms of wildland fire risk (California Fire Alliance 2010).

The project site, following construction, would consist primarily of concrete structures and paving materials, which are not associated with the generation or spread of wildland fire. The Proposed Project would include the installation of fire suppression systems (e.g., fire hydrants, fire sprinklers, smoke detectors). These systems would be designed in accordance with the latest requirements of the

California Fire Code and would be considered adequate to provide fire suppression to the project site. Project design would include emergency fire access routes. The proposed structures would be reviewed by the Diamond Springs-El Dorado Fire Protection District (District) to ensure that the design meets the District's standards, including those for building materials, sprinklers, internal fire walls and access for emergency vehicles. For these reasons, the development of the Proposed Project would not expose persons or structures to wildland fire risks. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Other Hazards

Impact HAZ-6:	The Project has the potential to expose people to a significant risk of loss, injury, or death resulting from accidental drowning.
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Impact Analysis

As indicated in the Section 4.7, Hydrology and Water Quality, of this Draft EIR, the Proposed Project may construct, should it be deemed necessary, a detention basin north of the Parkway. The detention basin would be located directly adjacent to the Parkway and within close proximity to the EDMUT trail. If implemented, the detention basin would present a potential accidental drowning hazard during the brief period it would be filled by runoff from the DDRC site. Accordingly, the detention basin would create a hazard that would be considered potentially significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM HAZ-6	The detention basin constructed as a part of the Diamond Dorado Retail Center shall be designed to protect the safety of any persons coming in contact with the system, including but not limited to avoidance of slopes greater than 3:1, protected outlet structures, safety fencing, and appropriate signage. Fencing shall also be constructed along the unnamed drainage bordering the project site to limit any potential for people to suffer a significant risk of loss, injury, or death resulting from accidental drowning.
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Level of Significance After Mitigation

Less than significant impact.

4.7 - Hydrology and Water Quality

4.7.1 - Introduction

This section describes the existing hydrology and water quality setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on the Preliminary Drainage Study (Appendix I), the Geotechnical Engineering Study (Appendix G), and the El Dorado County General Plan.

Climate

The project site is located in the foothills of the Sierra Nevada mountain range. Strong marine air that flows from the Pacific Ocean results in heavy precipitation in the project area. Rainfall in the summer is light and is limited to a few scattered thunderstorms. Precipitation ranges from 25 inches per year in the lower elevations of El Dorado County to about 50 inches per year in the upper elevations.

Surface Water Bodies

Surface water on the west slope of El Dorado County is contained in three principal watersheds: the Middle Fork American River, the South Fork American River, and the Cosumnes River.

Middle Fork American River

The Middle Fork American River watershed encompasses the northern region of El Dorado County and the southern region of Placer County. El Dorado County's portion of the watershed extends from the headwaters at Rockbound Valley in Desolation Wilderness, west to its terminus at the confluence with the North Fork American River, east of Auburn. The Rubicon River is the main tributary flowing into the Middle Fork, and receives flow upstream from the South Fork Rubicon River and Pilot Creek. Other principal water features within the watershed include Rubicon Reservoir, Loon Lake, Gerle Creek Reservoir, Robbs Peak Reservoir, and Stumpy Meadow Reservoir. The peak runoff from this watershed, where precipitation occurs primarily as snowfall in the upper elevations of the watershed and rainfall in the lower elevations, is typically from March through June.

South Fork American River

The South Fork American River watershed encompasses the central region of the county, extending from the headwaters at Echo Summit, west to the terminus at Folsom Reservoir. The major tributaries contributing flow directly into the South Fork American River are Silver Fork American River, Silver Creek, Slab Creek, Rock Creek, and Weber Creek. Upstream tributaries are Caples Creek, South Fork Silver Creek, and Jones Fork Silver Creek. Other water features within the watershed are Caples Lake, Silver Lake, Lake Aloha, Weber Reservoir, Ice House Reservoir, Union Valley Reservoir, Junction Reservoir, Camino Reservoir, Brush Creek Reservoir, Slab Creek Reservoir, and Chili Bar Reservoir. The peak runoff from this watershed, where precipitation occurs primarily as snowfall in the upper elevations of the watershed and rainfall in the lower elevations, is typically from March through June.

Cosumnes River

The Cosumnes River watershed encompasses the southern region of El Dorado County and the northwestern region of Amador County. The watershed extends from the headwaters along the Iron Mountain Ridge west to where the Cosumnes River enters Sacramento County. The major tributaries flowing directly into the Cosumnes River are the South, Middle, and North Fork Cosumnes rivers, and Canyon Creek. Both Deer Creek and Carson Creek are also tributaries to the Cosumnes. The creeks drain a significant portion of western El Dorado County in the Cameron Park and El Dorado Hill/Latrobe areas. Bass Lake and Sly Park Reservoir (El Dorado Irrigation District [EID]) are located in the Carson Creek watershed. The watershed of the Cosumnes River is lower in elevation than the Middle Fork and South Fork American rivers, with only about 16 percent of it above the 5,000-foot elevation. The peak runoff from the Cosumnes River, where precipitation occurs primarily as rainfall, is from January through April.

Drainage

The high point on the project site is the north corner of Lime Kiln and Lime Plant roads. From there, the site generally slopes and drains northward and westward for a total relief of approximately 66 feet. The western half of the site drains into a swale leading northward through the former lime plant site and off the property at its low point. The eastern half of the property drains northwestward into a small drainage flowing northward along the east side of Throwita Way. Drainage in the eastern half of the project site also flows from west to east, entering into an unnamed drainage channel along Diamond Road (SR-49). A stormwater drain is located on the project site in the northern half of Assessor's Parcel Number (APN) 051-250-46 and connects to stormwater generated by Throwita Way (Youngdahl 2007b). Drainage from the project site ultimately reaches Webber Creek through the unnamed drainages.

Groundwater

The geology of the west slope of El Dorado County is principally hard crystalline or metamorphic rock that forms the land surface, or underlies a thin soil or isolated alluvial cover. Although groundwater does not actually penetrate the hard rock mass, it can be found in fractures below the ground surface. The characteristics of the fracture system that affect the ability of water users to develop groundwater resources include the size and location of the fractures, the interconnection between the fractures, and the amount of material that may be clogging the fractures. In addition, the width of fractures generally decreases with depth. Therefore, recharge, movement, and storage of water in fractures of hard rock are limited. As such, the long-term reliability of groundwater cannot be estimated with the same level of confidence as a porous or alluvial aquifer, which is common to the Central Valley of California.

Previous studies regarding groundwater availability in fractured rock indicate that well yields generally decline over time and that recharge is dependent primarily on the ability of localized

precipitation to infiltrate into fractures. Additionally, water, if present, is usually found most abundantly in the first 250 feet of depth.

Project Site Groundwater

During exploratory subsurface drilling related to the Geotechnical Engineering Study for the Proposed Project, groundwater was generally not encountered except for a perched zone overlying the bedrock in two locations in the northwestern corner of the site (Refer to Figure A-2 of the Geotechnical Engineering Study in Appendix G). Subsurface water conditions typically vary in the foothill region. It is expected that groundwater may be perched on less weathered rock, and present in the fractures of more weathered rock, such as that found beneath the site, at varying times of the year.

Water Quality

Water in the environment is recirculated through the hydrological cycle. As water moves through the system, the quality of the water is continuously changed by physical processes. In addition, the composition of geologic materials that the water encounters can affect the water quality. Some processes, such as filtration through surface soils and within aquifers, tend to change the quality of the water. All of these changes are temporary. The relative quality of surface water and groundwater at any given time and location reflects the balance of the pollutant loading and the ability of the system to treat or purify the water. If the pollutant loading exceeds the ability of the system to assimilate pollutants, then water quality problems may occur. In general, the encroachment of development tends to increase the pollutant loading, while simultaneously reducing the ability of the natural system to assimilate pollutants.

The project site falls within Region 5 (Central Valley Region), of the California Regional Water Quality Control Board (RWQCB). There are no water bodies in the Diamond Springs area listed on the 2006 Clean Water Act 303(d) list of impaired water bodies. Furthermore, none of the tributaries within the project study area are listed on the 2006 Clean Water Act 303(d) list of impaired water bodies. As such, no Total Maximum Daily Load requirements are in effect for any surface water bodies in or adjacent to the project site (SWRCB, 2008).

4.7.2 - Regulatory Framework

Federal

Clean Water Act

Section 303 of the Clean Water Act requires states to adopt water quality standards for all surface waters of the United States. Water quality standards consist of beneficial uses of the waters to be protected, water quality objectives to protect the designated beneficial uses, and a program of implementation needed for achievement of water quality objectives. Beneficial uses are the types of activities for which the receiving water may be protected, including but not limited to municipal supply; agricultural and industrial supply; recreation; and preservation and enhancement of fish,

wildlife, and other aquatic resources. Water quality objectives are the numeric or narrative water quality levels established for the reasonable protection of the beneficial uses and the prevention of nuisance. (See further description of State Porter-Cologne Water Quality Control Act, below.)

Section 402 of the Clean Water Act establishes the National Pollutant Discharge Elimination System (NPDES) permit program, and Section 301 of the Clean Water Act prohibits discharges of pollutants to waters of the United States without first obtaining an NPDES permit. Section 402(p) prescribes requirements for certain types of stormwater discharges that the California State Water Resources Control Board (SWRCB) implements in the granting of NPDES storm water permits. Construction activities that disturb land equal to or greater than 1 acre must comply with the SWRCB's General Permit for Discharges of Storm Water Associated with Construction Activity, SWRCB Order No. 99-08-DWQ ("General Permit"), which was revised by the SWRCB on September 2, 2009, and reissued as a wholly new General Permit. (The specific SWRCB Order No. is still pending.) Implementation and enforcement of the General Permit is overseen by the nine Regional Water Quality Control Boards (RWQCBs). The project site is within the boundaries of the Central Valley RWQCB.

Where construction activity disturbs 1 or more acres, the General Permit requires all dischargers of storm water associated with construction activity to take the following measures:

1. Develop and implement a Stormwater Pollution Prevention Plan (SWPPP), which specifies BMPs that will minimize or prevent pollutants associated with construction activity from contacting stormwater and with the intent of minimizing sediment from moving offsite into receiving waters.
2. Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the United States.
3. Perform inspections of all BMPs.

To obtain coverage, the landowner must file a Notice of Intent (NOI) with the SWRCB, and certify compliance with the requirements listed above. When project construction is completed, El Dorado County must file a notice of termination.

Federal and State Anti-Degradation Policies

The federal anti-degradation policy directs the State to develop and adopt a statewide anti-degradation policy, consistent with the following principles:

- Existing instream water use and level of water quality necessary to protect the existing uses shall be maintained and protected.
- Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds after full satisfaction of the intergovernmental coordination and

public participation provisions of the State's continuing planning process that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.

In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully. Further, the State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources, and all cost-effective and reasonable best management practices for non-point source control.

- Where high-quality waters constitute an outstanding national resource, such as waters of National and State Parks and wildlife refuges and waters of exceptional recreational or ecological significance, water quality shall be maintained and protected.

In accordance with the federal anti-degradation policy principles excerpted above, the SWRCB adopted SWRCB Res. No. 68-16, setting forth California's anti-degradation policy. Resolution 68-16 states, in part:

. . . whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.

Where high quality waters exist, the state anti-degradation policy requires discharges to meet waste discharge requirements that will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with the maximum benefit to the people of the State will be maintained.

State

Porter-Cologne Water Quality Control Act

The California Porter-Cologne Water Quality Control Act of 1969 authorized the SWRCB to provide comprehensive protection for California's waters through water allocation and water quality protection. The Porter-Cologne Act was later amended to authorize the SWRCB and nine RWQCBs to issue NPDES permits under the Clean Water Act via authority delegated by the EPA. The SWRCB implements the requirements of the Clean Water Act and the Porter-Cologne Act by adopting statewide water quality control plans that prescribe applicable water quality standards to specified water bodies. The Porter-Cologne Act also established the responsibilities and authorities of the nine RWQCBs, which include preparing regional water quality control plans, promulgating

regional water quality standards, and issuing NPDES permits and the state-equivalent Waste Discharge Requirements (WDRs), among other regulatory orders.

Local

El Dorado County General Plan

As part of the Proposed Project, a proposed General Plan Amendment and rezone would designate the site for commercial uses. As such, the Project would be required to comply with the following General Plan policies pertaining to the new Commercial designation:

Table 4.7-1: Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
Goal 5.4 - Storm Drainage: Manage and control storm water runoff to prevent flooding, protect soils from erosion, prevent contamination of surface waters, and minimize impacts to existing drainage infrastructure.	Consistent: Stormwater runoff from the project site would be directed in to a detention basin located north of the Diamond Springs Parkway. Project components and mitigation incorporated into this Draft EIR, including an SWPPP and an NPDES permit, would prevent on- and offsite flooding, erosion, and surface water contamination.
Policy 5.4.1.1: Require storm drainage systems for discretionary development that protect public health and safety, preserve natural resources, prevent erosion of adjacent and downstream lands, prevent the increase in potential for flood hazard or damage on either adjacent, upstream or downstream properties, minimize impacts to existing facilities, meet the National Pollution Discharge Elimination System (NPDES) requirements, and preserve natural resources such as wetlands and riparian areas.	Consistent: A storm drainage system would be constructed as a part of the Proposed Project. Project components and mitigation incorporated into this Draft EIR, including an SWPPP and an NPDES permit, would prevent on- and offsite flooding, erosion, and surface water contamination.
Policy 5.4.1.2 Discretionary development shall protect natural drainage patterns, minimize erosion, and ensure existing facilities are not adversely impacted while retaining the aesthetic qualities of the drainage way.	Consistent: The Proposed Project would obtain a Streambed Alteration Agreement for disturbance caused to the drainage located west of the project site. Implementation of the project grading and landscaping plans would ensure erosion is minimized and the aesthetics quality of the drainage is maintained to the extent feasible.
Policy 5.4.1.1: Require storm drainage systems for discretionary development that protect public health and safety, preserve natural resources, prevent erosion of adjacent and downstream lands, prevent the increase in potential for flood hazard or damage on either adjacent, upstream or downstream properties, minimize impacts to existing facilities, meet the National Pollution Discharge Elimination System (NPDES) requirements, and preserve natural resources such as wetlands and riparian areas.	Consistent: The Proposed Project would implement BMPs as included in an SWPPP under an NPDES permit and construct a permanent stormwater drainage site. Accordingly, erosion and flooding would be minimized both on- and offsite.

Table 4.7-1 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
Policy 5.4.1.2: Discretionary development shall protect natural drainage patterns, minimize erosion, and ensure existing facilities are not adversely impacted while retaining the aesthetic qualities of the drainage way.	Consistent: The DDRC site has been designed to minimize impact to the existing unnamed drainage located west of the Project.
Policy 7.3.1.1: Encourage the use of Best Management Practices, as identified by the Soil Conservation Service, in watershed lands as a means to prevent erosion, siltation, and flooding.	Consistent: The Project would use BMPs to minimize impacts related to erosion, siltation, and flooding.
Objective 7.3.2 - Water Quality: Maintenance of and, where possible, improvement of the quality of underground and surface water.	Consistent: The Project would not affect groundwater quality. Maintenance of surface water quality would be implemented through BMPs included in the SWPPP.
Policy 7.3.2.1: Stream and lake embankments shall be protected from erosion, and streams and lakes shall be protected from excessive turbidity.	Consistent: No streams or lakes are located on or adjacent to the project site. An unnamed drainage is located west of the project site that flows into Weber Creek. Stormwater would be released into this drainage at the same or a lower rate than pre-project conditions, thereby protecting drainage banks from susceptibility to erosion and excessive turbidity.
Policy 7.3.2.2: Projects requiring a grading permit shall have an erosion control program approved, where necessary.	Consistent: As part of the Project's SWPPP and incorporated BMPs an erosion control plan would be established.
Policy 7.3.2.3: Where practical and when warranted by the size of the project, parking lot storm drainage shall include facilities to separate oils and salts from storm water in accordance with the recommendations of the Storm Water Quality Task Force's California Storm Water Best Management Practices Handbooks (1993).	Consistent: As required by Mitigation Measure BIO-2c, included in this Draft EIR, the Proposed Project would be required to implement appropriate runoff controls such as filtration systems and sediment traps. Such controls would separate oils and salts from stormwater.
Policy 7.3.2.5: As a means to improve the water quality affecting the County's recreational waters, enhanced and increased detailed analytical water quality studies and monitoring should be implemented to identify and reduce point and non-point pollutants and contaminants. Where such studies or monitoring reports have identified sources of pollution, the County shall propose means to prevent, control, or treat identified pollutants and contaminants.	Consistent: As a part of the Proposed Project, a Drainage Report has been completed. In addition, the Proposed Project would adhere to all applicable BMPs and mitigation measures included in this EIR related to water quality.
Policy 7.3.4.1: Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.	Consistent: The existing unnamed drainage west of the project site will be incorporated into the project site as a natural buffer between the DDRC and industrial/commercial development to the west.
Policy 7.3.4.2: Modification of natural streambeds and flow shall be regulated to ensure that adequate mitigation measures are utilized.	Consistent: Modifications to the drainage features located on the project site would be regulated by a Section 404 permit from the USACE and a Section 1602 Lake and Streambed Alteration Agreement from CDFG.
Source: El Dorado County General Plan, 2004; MBA, 2010.	

El Dorado County Ordinance Code

The El Dorado County Ordinance Code provides countywide standards for development, in the County. Issues related to erosion and sedimentation, water quality, and drainage are contained pertinent to the water resources analysis are presented below.

Chapter 15.14 - Grading Erosion and Sediment Control. This Chapter is enacted for the purpose of regulating grading within the unincorporated area of El Dorado County to safeguard life, limb, health, property and public welfare; to avoid pollution of watercourses; and to ensure that the intended use of a graded site is consistent with the El Dorado County General Plan, any Specific Plans adopted thereto, the adopted Storm Water Management Plan, California Fire Safe Standards and applicable El Dorado County ordinances including the Zoning Ordinance and the California Building Code.

This Chapter establishes the administrative procedures for issuance of permits; and provides for approval of plans and inspection of grading construction. This Chapter is not intended to supersede or otherwise preempt any applicable local, state, or federal law or regulation. Where conflicts may occur between this Chapter and such laws or regulations, the most restrictive shall apply.

Pursuant to Section 15.14.130 of the County Grading Ordinance, a grading permit is required for earth moving activities conducted on private property within the unincorporated area of El Dorado County in order to protect neighboring properties, public welfare, and water quality of streams, rivers, and lakes. In order for a permit to be granted, a proposed grading project must be consistent with the County General Plan, any applicable Specific Plan, the County Grading Ordinance, the County Design and Improvement Standards Manual, and the Building Code currently in force.

County of El Dorado Drainage Manual

The County of El Dorado Drainage Manual (1995) provides guidelines for drainage improvements that are intended to supplement the provisions of the Grading, Erosion and Sediment Control Ordinance and the Design and Improvement Standards Manual. Specifically, the Drainage Manual is intended to provide consistent, specific criteria and guidelines regarding the design of storm drainage facilities and the management of stormwater in El Dorado County. The design criteria provided in the Drainage Manual pertain to hydrologic, hydraulic, and structural design. For example, the Drainage Manual provides that drainage facilities for subdivisions with drainage areas of greater than 100 acres be sized at a minimum to accommodate 100-year storm runoff, while drainage facilities for subdivision with less than 100 acres of drainage area be sized to accommodate runoff from 10-year or greater storm events (El Dorado County 1995).

SWMP***Western El Dorado County Storm Water Management Plan***

The Western El Dorado County Storm Water Management Plan (SWMP) describes the program intended to reduce the discharge of pollutants associated with stormwater drainage systems that serve Western El Dorado County. It identifies how the County complies with the provisions of the

National Pollutant Discharge Elimination System (NPDES) permit issued by the California State Water Resources Control Board.

4.7.3 - Methodology

Michael Brandman Associates (MBA) analyzed the Proposed Project's potential to cause adverse impacts on hydrology and water quality utilizing several resources. Information about the project site's proposed stormwater drainage system was obtained from the Preliminary Drainage Study prepared for the Diamond Dorado Retail Center by CTA Engineering in March 2010 (Appendix K). Groundwater information was provided by the El Dorado County General Plan EIR (EDAW 2003) and the Geotechnical Engineering Study prepared by Youngdahl (2008) (Appendix G). Project plans were reviewed for descriptions of drainage facilities.

4.7.4 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, hydrology and water quality impacts resulting from the implementation of the Proposed Project would be considered significant if the Project would:

- a.) Violate any water quality standards or waste discharge requirements?
- b.) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?
- c.) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?
- d.) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?
- e.) 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?
- f.) Otherwise substantially degrade water quality?
- g.) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (Refer to Section 7, Effects Found Not To Be Significant.)
- h.) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows? (Refer to Section 7, Effects Found Not To Be Significant.)

- i.) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? (Refer to Section 7, Effects Found Not To Be Significant.)
- j.) Inundation by seiche, tsunami, or mudflow? (Refer to Section 7, Effects Found Not To Be Significant.)

4.7.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate. Included are construction (short-term) and operational (long-term) impacts of onsite improvements, as well as construction impacts of offsite improvements.

Water Quality Standards and Discharge Requirements

Impact HYD-1:	The Project has the potential to violate a water quality standard or waste discharge requirement.
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Impact Analysis

Onsite Improvements

The Project may result in an increase of pollutants in local stormwater discharge associated with construction and use of the Proposed Project. This would be in violation of local, regional, and state water quality standards, and waste discharge requirements. Pollutants that could arise as a result of the Project would generally be associated with project construction and project operations.

Development of the Project would require extensive grading and construction activities. During these activities, there would be the potential for surface water to carry sediment from onsite erosion and small quantities of pollutants into the stormwater system and local waterways. Soil erosion may occur during construction in areas where temporary soil storage is required. Small quantities of pollutants have the potential for entering the storm drainage system, thereby potentially degrading water quality.

Construction of the Project would also require the use of gasoline- and diesel-powered heavy equipment, such as bulldozers, backhoes, water pumps, and air compressors. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances would be utilized in heavy equipment during construction. An accidental release of any of these substances could degrade the water quality of the surface water runoff and add additional sources of pollution into the drainage system.

The Project would increase the amount of impervious surface. Current estimates indicate that the structural components and other non-permeable surfaces such as parking, internal roadways, and sidewalks would cover 21.11 acres of the 27.61-acre retail/commercial development, which results in approximately 76.5 percent of impervious cover on the project site.

The Project would also include the construction of a detention basin located in an area where a sludge pond, associated with the historical Diamond Lime Plant, was located. The former sludge pond may contain hazardous chemicals or contaminated soils, which may present a potentially significant impact, including the increase of stormwater pH levels as a result of lime deposits. Implementation of Mitigation Measure HYD-1 requires the Project applicant to implement an SWPPP during construction activities to prevent contaminated runoff from leaving the project site, including stormwater that may have an elevated pH as a result of contact with lime deposits. Furthermore, Mitigation Measure HAZ-3d would require a Registered Environmental Assessor to observe for the potential indication of onsite hazardous disposal areas, such as sludge ponds.

The NPDES stormwater permitting programs regulate stormwater quality from construction sites. Under the NPDES permitting program, the preparation and implementation of SWPPPs are required for construction activities more than 1 acre in area. The SWPPP must identify potential sources of pollution that may be reasonably expected to affect the quality of stormwater discharges as well as identify and implement BMPs that ensure the reduction of these pollutants during stormwater discharges.

As previously mentioned, Mitigation Measure HYD-1 would require the Project applicant to prepare and implement an SWPPP. The implementation of the mitigation measure would ensure that potential, short-term, construction water quality impacts are reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM HYD-1 Prior to the issuance of grading permits for the Proposed Project, the applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the County of El Dorado Department of Transportation that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements:

- Temporary erosion control measures shall be employed for disturbed areas.
- No disturbed surfaces will be left without erosion control measures in place during the winter and spring months.
- Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures.
- The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains.

- BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the Central Valley Regional Water Quality Control Board to determine adequacy of the measure.
- Testing for increased stormwater pH levels as a result of contact with onsite lime deposits.
- In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

Proposed offsite roadway improvements may result in an increase of pollutants in local stormwater discharge associated with construction. In addition, as in onsite improvements, development of the roadway improvements would require extensive grading and construction activities, which carries the potential for surface water to convey sediment from roadway construction site erosion and small quantities of pollutants to enter the stormwater system. Soil erosion may occur during construction in areas where temporary soil storage is required. Small quantities of pollutants have the potential for entering the storm drainage system, thereby potentially degrading water quality.

Construction of offsite roadway improvements would also require the use of gasoline- and diesel-powered heavy equipment, such as bulldozers, backhoes, water pumps, and air compressors. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, and other substances would be utilized in heavy equipment during construction. An accidental release of any of these substances could degrade the water quality of the surface water runoff and add additional sources of pollution into the drainage system.

As previously mentioned, Mitigation Measure HYD-1 would require the Project applicant to prepare and implement an SWPPP. The implementation of the mitigation measure would ensure that potential, short-term, construction water quality impacts are reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure HYD-1.

Level of Significance After Mitigation

Less than significant impact.

Groundwater Supplies and Recharge

Impact HYD-2: **The Proposed Project does not have any characteristics that would contribute to groundwater overdraft or interfere with groundwater recharge.**

Impact Analysis

Onsite Improvements

No defined groundwater basins are located in El Dorado County. The amount and location of groundwater varies significantly throughout the County due to its location in hard rock aquifers. Construction activities associated with the Proposed Project may use water for dust control and other purposes. Water would be provided by a contracted service and would not deplete any groundwater supplies. Upon completion, the Proposed Project would be served by EID, which provides water from surface water sources. Accordingly, no groundwater wells would be drilled onsite as a part of the Proposed Project.

The Project would increase the amount of impervious surface. Stormwater runoff that would otherwise percolate to the groundwater below the project site would be directed to existing unlined conveyance features where percolation would occur.

Since no defined groundwater basins are located in El Dorado County and the Project would be served by surface waters, potential impacts to groundwater would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

As previously mentioned, defined groundwater basins are located in El Dorado County. The amount and location of groundwater varies significantly throughout the County, due to its location in hard rock aquifers. Construction activities associated with the Proposed Project may use water for dust control and other purposes. Water would be provided by a contracted service and would not deplete any groundwater supplies. In addition, because offsite improvements are roadways, no water will be required to serve the improvement areas upon completion of construction.

It should be noted that offsite roadway improvement areas would increase the amount of impervious surfaces within the area. Stormwater runoff that would otherwise percolate to the groundwater below

the project site would be directed to existing unlined conveyance features where percolation would occur. However, as with onsite improvements, since no defined groundwater basins are located in El Dorado County, potential impacts to groundwater from offsite roadway improvements would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Drainage

Impact HYD-3:	The Proposed Project does not have the potential to alter the existing drainage pattern which could result in substantial erosion, siltation, or flooding on- or off-site.
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Impact Analysis*Onsite Improvements*

Existing onsite stormwater drainage consists primarily of sheetflows or surface runoffs to the unnamed drainage channel to the west, a roadside ditch along Diamond Road (SR-49), a storm drain system near Bradley Drive, and a storm drain system in Throwita Way (CTA 2010).

Construction activities would have the potential to result in erosion or siltation. Accordingly, implementation of Mitigation Measure HYD-1 would ensure substantial erosion or siltation would not occur on- or offsite. Furthermore, as required by General Plan Policy 7.3.2.2, an erosion control plan must be prepared prior to the provision of a grading permit. The erosion control plan would limit stormwater runoff and discharge from the project site during construction activities.

The Proposed Project would permanently convert the project site from disturbed and undeveloped uses to commercial retail uses. The existing onsite drainage channel, located along the west side of the project site, would be channelized to connect with the culverted portion of drainage extended beneath the Diamond Springs Parkway, thereby permanently altering existing onsite drainage. As required by Mitigation Measure BIO-2a, a Section 404 permit from USACE and a Section 1602 Lake and Streambed Alteration Agreement from CDFG would be obtained.

The Proposed Project would construct a network of storm drain piping and inlets throughout the DDRC site. The storm drain system would convey runoff to one of four discharge points. Post-development discharge flows were calculated in compliance with the County of El Dorado Drainage Manual (CTA 2010) and are provided in Table 4.7-2.

Table 4.7-2: Pre- and Post-Development Stormwater Flows

Discharge Point	Pre-Development Flows (cfs)		Post-Development Flows (cfs)	
	10-Year Storm	100-Year Storm	10-Year Storm	100-Year Storm
1	55.4	82.4	56.3	83.3
2	5.9	8.9	5.8	8.6
34	5.6	8.3	5.4	8.0
57	11.7	17.6	11.2	16.5
Note: Discharge points are as numbered in the Drainage Study included in Appendix K. Source: CTA, 2010.				

As shown in the table, flows would decrease at all discharge point except discharge point one. Flows at discharge point one would increase by 0.9 cubic feet per second (cfs), or 1 percent, for both the 10-year and 100-year storm event. Accordingly, the stormwater system has been designed to avoid flooding on- and offsite.

However, as noted in the Drainage Study, the negligible (one percent increase) impact of the proposed development's stormwater flows was reached by a careful allocation of the project site's stormwater flows to designated discharge points and features. Accordingly, minor changes to the proposed drainage plan may result in changed post-construction runoff and potential impacts, including flooding or increased erosion may occur. The Drainage Study indicated that, should it be deemed necessary, a detention basin for discharge point one could be constructed in the northwest corner of the project site, north of the separately proposed and approved Diamond Springs Parkway ROW. It has been conservatively assumed that the detention basin would occur as a part of the Proposed Project. The detention basin would provide approximately 0.7 acre of volume storage and would reduce post-development flows at discharge point one to 55.2 cfs for a 10-year storm event and 80.9 cfs for a 100-year storm even thereby further ensuring on- or -off site flooding would not occur. El Dorado County requires that a final drainage plan be submitted for review and approval. Implementation of the County approved drainage plan would ensure impacts resulting from drainage would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

Existing stormwater drainage at the offsite roadway improvement areas consists primarily of sheetflows or surface runoffs to roadside ditches along the proposed offsite roadway improvement areas. Roadway construction activities would have the potential to result in erosion or siltation. Implementation of Mitigation Measure HYD-1 would ensure substantial erosion or siltation would not occur on- or offsite. Furthermore, as required by General Plan Policy 7.3.2.2, an erosion control plan must be prepared prior to the provision of a grading permit. The erosion control plan would limit stormwater runoff and discharge from the project site during construction activities.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Drainage Capacity

Impact HYD-4:	The Project does not have the potential to create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems.
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Impact Analysis*Onsite Improvements*

As noted above under Impact HYD-3, a Drainage Study has been prepared for the Proposed Project. According to the Drainage Study, the Proposed Project would implement a stormwater drainage system that would decrease stormwater flows at all discharge points except discharge point one. Flows at discharge point one would increase by 0.9 cfs, or 1 percent, for both the 10-year and 100-year storm event. Stormwater would eventually flow to Weber Creek, which has a 100-year storm level of approximately 7,381 cfs. The increase of 0.9 cfs is minimal and would not exceed the capacity of existing or planned stormwater drainage systems. As noted under Impact HYD-3, these increases would be reduced by the construction of a detention basin to properly attenuate stormwater flows. A final drainage plan would be submitted to and approved by El Dorado County and would ensure impacts to drainage capacity are less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

Proposed offsite roadway improvements would implement a stormwater drainage infrastructure that would divert runoff from the roadway into a series of drainage ditches and storm drains. Runoff from the offsite roadway improvements would not exceed the capacity of existing or planned stormwater drainage systems. Final drainage plans would be submitted to and approved by El Dorado County and would ensure impacts to drainage capacity resulting from the offsite roadway improvements are less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Water Quality

Impact HYD-5: **The Project has the potential to substantially degrade water quality.**

Impact Analysis

Onsite Improvements

As discussed under Impact HYD-1, the Project may result in an increase of pollutants in local stormwater discharge associated with construction and use of the Proposed Project and, therefore, would degrade water quality. Implementation of Mitigation Measure HYD-1 would ensure water quality impacts would be reduced to a less than significant level.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure HYD-1.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

As discussed above, offsite roadway improvements may result in an increase of pollutants in local stormwater discharge associated with construction and use of the Proposed Project and could

potentially degrade water quality. Implementation of Mitigation Measure HYD-1 would ensure water quality impacts would be reduced to a less than significant level.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure HYD-1.

Level of Significance After Mitigation

Less than significant impact.

4.8 - Land Use

4.8.1 - Introduction

This chapter describes the existing and planned land uses within the project site and vicinity, including the current land uses, land use designations, and zoning and provides an overview of the land use and planning effects that may result from development of the Diamond Dorado Retail Center (DDRC) Project. CEQA does not recognize land use, socio-economic, population, employment, or housing issues as direct physical impacts to the environment. A direct physical change in the environment is a physical change that is caused by and immediately related to the Project (CEQA Guidelines Section 15064(d)(1)). Therefore, this section does not identify specific environmental impacts and mitigation measures. The physical changes in the environment associated with the Project are analyzed in the technical sections of this EIR. Consult the appropriate technical sections of Section 4 for a discussion of the physical effects of the Proposed Project.

Section 15125 of the CEQA Guidelines states that the EIR shall discuss “any inconsistencies between the proposed project and applicable general plans and regional plans” Potential inconsistencies between the Proposed Project and the County of El Dorado General Plan and the County’s Zoning Ordinance are evaluated in this chapter. Documents referenced include the County’s General Plan and the County’s Zoning Ordinance.

4.8.2 - Environmental Setting

Land Use

Project Site

As previously mentioned in Section 3.2, the Proposed Project is located within unincorporated El Dorado County, California, south of the Missouri Flat Road/US-50 Interchange, west of the City of Placerville, and north of the community of Diamond Springs (Exhibit 3-1). As illustrated in Exhibit 3-2, the project site abuts Diamond Road/ State Route 49 (SR-49) to the east, the separately proposed and approved Diamond Springs Parkway (Parkway) and Bradley Drive to the north, and Lime Kiln Road to the south.

Surrounding Area

North

Areas north of the project site include industrial land uses along Truck Street and Bradley Drive, including a mini storage facility, an auto mechanic shop, and a recycling center. Beyond the industrial land uses, undeveloped land, rural residences, and wooded areas are present.

East

Diamond Road/SR-49 borders the project site on the east. Beyond Diamond Road/SR-49 is an undeveloped area consisting of rural (weedy) vegetation and large trees. Further east are several scattered rural residences. A small residential subdivision is located southeast of the project site.

South

The El Dorado Material Recovery Facility (MRF) and Lime Kiln Road are located adjacent to the southern boundary of the project site. Beyond the MRF and Lime Kiln Road are rural residences and undeveloped woodlands. The community of Diamond Springs is located approximately 0.30 mile south of the project site on Pleasant Valley Road/SR-49.

West

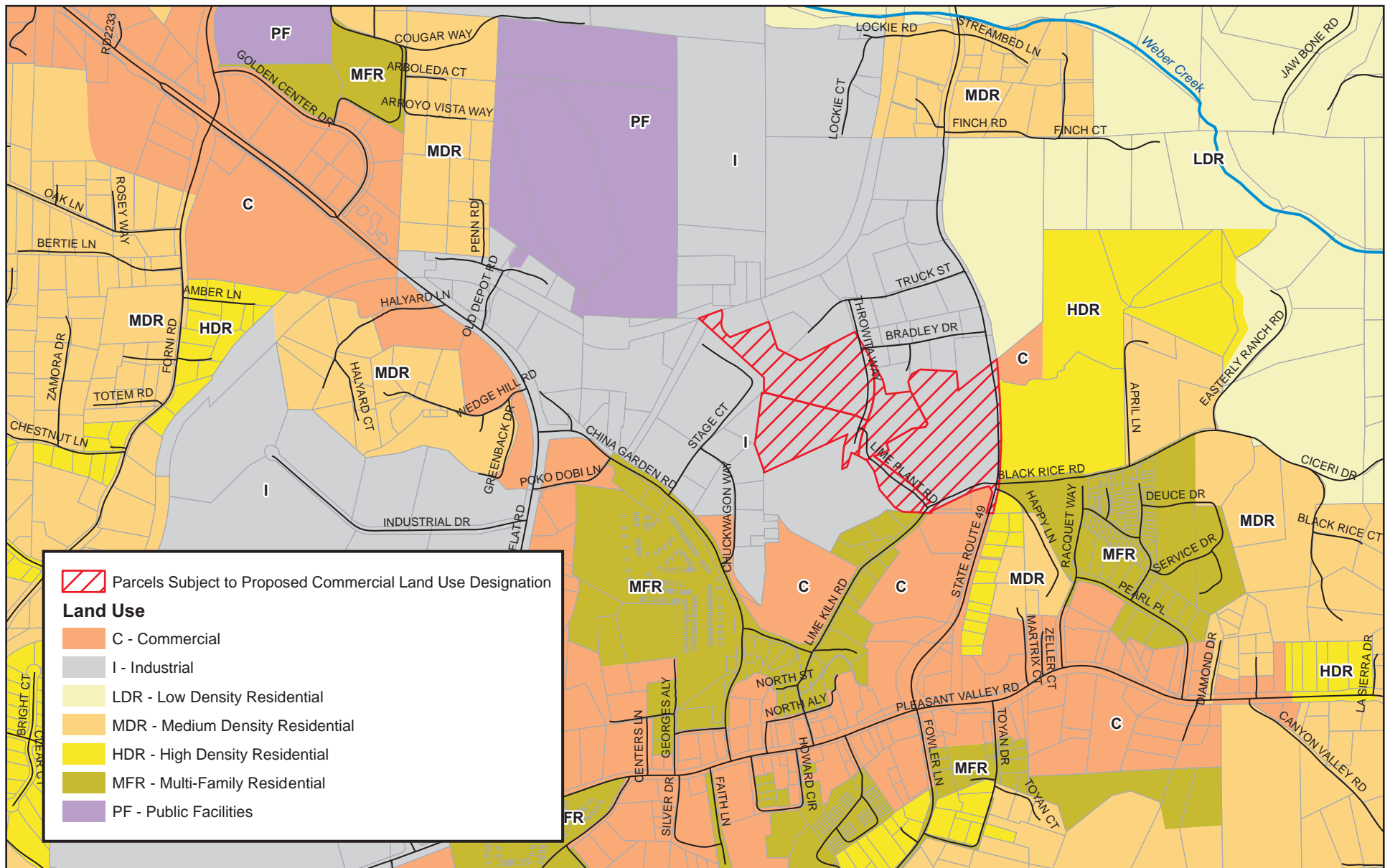
West of the project site are commercial and industrial land uses along Chuckwagon Way and Stage Court. Uses include a mini storage facility, auto mechanic shops, small manufacturing operations, and small storage warehouses. A mobile home park is located between these uses and the commercial uses on Missouri Flat Road.

Land Use Designations***Project Site***

The El Dorado County General Plan currently designates the project parcels as Industrial. The El Dorado County Zoning Ordinance zones the project parcels as Industrial (I). The project site is located within the Diamond Springs Community Region as described by the County's General Plan. As designated by Policy 2.1.1.2 of the General Plan, Community Regions are those areas that are appropriate for the highest intensity of self-sustaining compact urban-type development or suburban type development within the County. The project site is also located with the Missouri Flat Corridor and would therefore be required to comply with the Missouri Flat Design Guidelines.

Surrounding Vicinity

Table 4.8-1 provides the General Plan and Zoning Ordinance designations for surrounding land uses. The General Plan land use map for the project vicinity is provided in Exhibit 4.8-1. The Zoning map for the project vicinity is provided in Exhibit 4.8-2.



Source: El Dorado County 2007. MBA 2010.

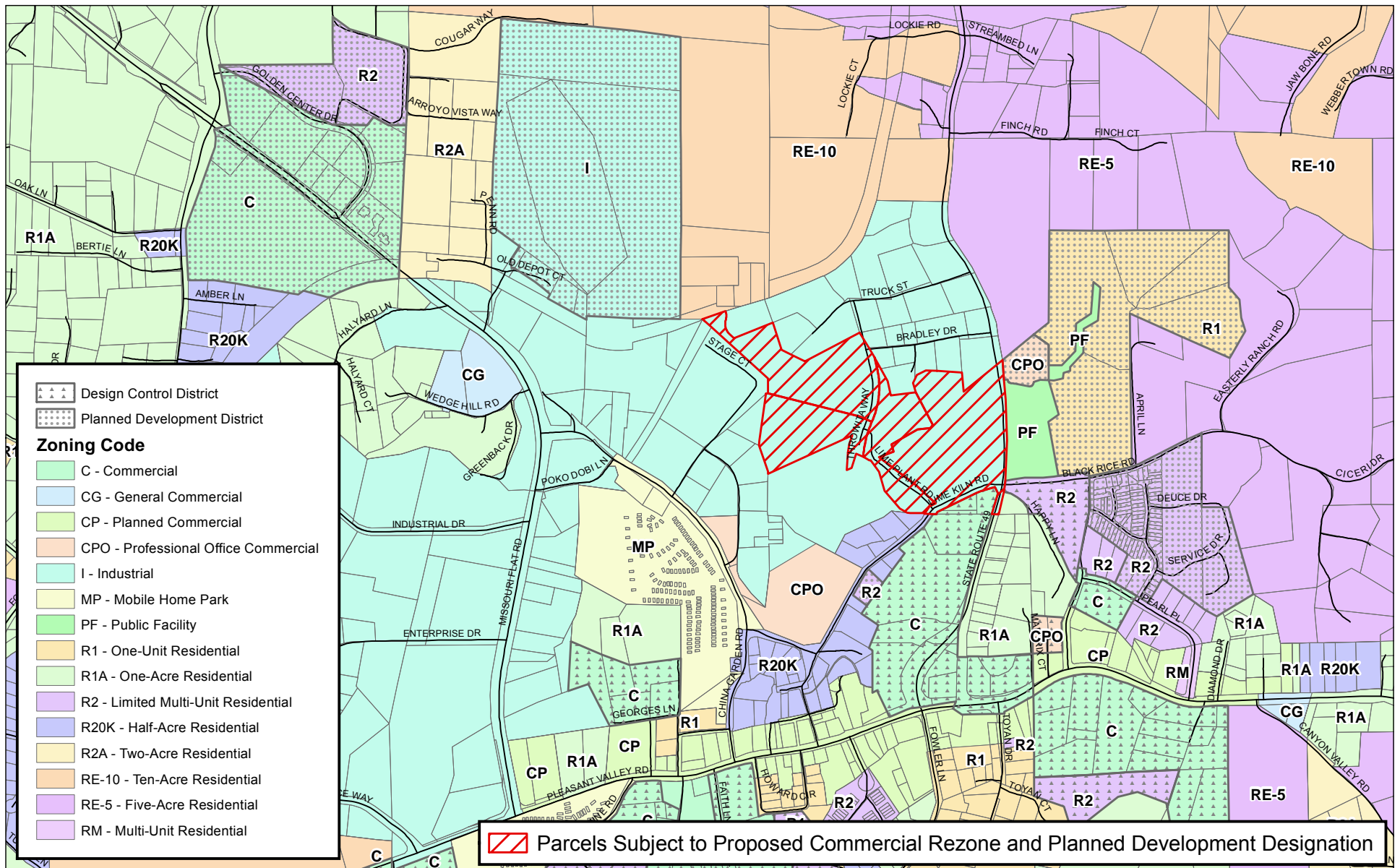


Michael Brandman Associates

33370001 • 08/2010 | 4.8-1_land_use.cdr

1,000 500 0 1,000 Feet

Exhibit 4.8-1 Land Use



Source: El Dorado County 2007; MBA 2010.



1,000 500 0 1,000
Feet

Michael Brandman Associates

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Exhibit 4.8-2 Zoning

EL DORADO COUNTY • DIAMOND DORADO RETAIL CENTER
 STAFF REPORT-EXHIBIT 4.8-2 (DRAFT) ENVIRONMENTAL IMPACT REPORT
 12-1084 F(2) 333 of 572

Table 4.8-1: Surrounding Land Use Designations

Land Use	Relationship to Project Site	Land Use Designation	
		General Plan	Zoning
Diamond Springs Parkway right-of-way and existing industrial development including propane distributors, a mini-storage facility, and an auto mechanic.	North	Industrial	Industrial (I)
Undeveloped Land	East	Commercial	Professional Office Commercial (CPO with Planned Development (PD) overlay
Undeveloped land and rural residences	East	High Density Residential	Public Facility (PF), One-Family Residential (R1) with Planned Development (PD) overlay
Residential	East	Multi-Family Residential/High Density Residential	Limited Multifamily Residential (R2) with Design Control overlay/One-Acre Residential
Material Recovery Facility	South	Industrial	Industrial (I)
Residential	South	Multi-Family Residential	One-Half Acre Residential
Undeveloped land.	South	Commercial	Commercial (C) with Design Control overlay
Industrial land uses including manufacturing shops, auto mechanics, and mini-storage.	West	Industrial	Industrial (I)
Source: El Dorado County, 2010.			

4.8.3 - Regulatory Framework

Local

El Dorado County General Plan

The El Dorado County General Plan provides a blueprint for growth within the unincorporated areas of the County. The El Dorado County Board of Supervisors adopted the most recent General Plan on July 19, 2004. The General Plan contains 10 topical elements: Introduction, Land Use, Transportation and Circulation, Housing, Public Services and Utilities, Health, Safety and Noise, Conservation and Open Space, Agriculture and Forestry, Parks and Recreation, and Economic Development. Each element establishes goals and policies to guide future land use activities and development within the General Plan boundaries.

As part of the Project, the applicant is requesting a General Plan Amendment that would re-designate the site for Commercial uses. The provisions of the proposed Commercial General Plan designation are described below.

Commercial Land Use Designation

The Project applicant is proposing a General Plan Amendment that would change the site's land use designation to Commercial. As a result of Resolution No. 264-2009 of the Board of Supervisors, the General Plan describes the purpose and intent of the Commercial designation as follows:

The purpose of this land use category is to provide a full range of commercial retail, office, and service uses to serve the residents, businesses, and visitors of El Dorado County. Mixed-use development of commercial lands within Community Regions and Rural Centers which combine commercial and residential uses shall be permitted. The residential component of the project shall only be implemented following or concurrent with the commercial component. Commercially designated parcels shall not be developed with a residential use as the sole use of the parcel unless the residential use is either (1) a community care facility as described in goal HO-4 or (2) part of an approved mixed use development as allowed by Policy 2.1.1.3 and 2.1.2.5. Numerous zone districts shall be utilized to direct specific categories of commercial uses to the appropriate areas of the County. Except as provided in Policy 2.2.2.3, this designation is considered appropriate only within Community Regions and Rural Centers.

In addition, the Project would be required to comply with the following General Plan policies pertaining to the new Commercial designation (Table 4.8-2).

Table 4.8-2: Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
<p>Policy 2.1.1.7: Development within Community Regions, as with development elsewhere in the County, may proceed only in accordance with all applicable General Plan Policies, including those regarding infrastructure availability as set forth in the Transportation and Circulation and the Public Services and Utilities Elements. Accordingly, development in Community Regions and elsewhere will be limited in some cases until such time as adequate roadways, utilities, and other public service infrastructure become available and wildfire hazards are mitigated as required by an approved Fire Safe Plan.</p>	<p>Consistent: The proposed project site is located in a primarily industrial/commercial area with pockets of residential development, manufacturing and storage uses, and vacant industrial lots. Public services and utilities-related infrastructure currently exists for the proposed project site. However, implementation of the Proposed Project would include additional infrastructure systems (such as wastewater and water connections) that would be designed to meet the needs of the Proposed Project. The infrastructure improvements are expected to be built using private financing and would be constructed in a single phase. Upon completion of the Diamond Springs Parkway, sufficient circulation infrastructure would be completed to effectively serve the Proposed Project. Therefore, the Project would be consistent with this policy.</p>

Table 4.8-2 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
<p>Policy 2.2.1.1: The matrix contained in Table 2-1 provides for the relationship and consistency between the General Plan planning concept areas and the land use designations.</p>	<p>Consistent: Approval of the proposed General Plan amendment and zone change would ensure consistency with General Plan planning concept and the land use designations. Therefore, the Project would be consistent with this policy.</p>
<p>Policy 2.2.1.2: To provide for an appropriate range of land use types and densities within the County, the following General Plan land use designations are established and defined. Commercial (C): The purpose of this land use category is to provide a full range of commercial retail, office, and service uses to serve the residents, businesses, and visitors of El Dorado County. Mixed use development of commercial lands within Community Regions and Rural Centers which combine commercial and residential uses shall be permitted provided the commercial activity is the primary and dominant use of the parcel. The residential component of the project shall only be implemented following or concurrent with the commercial component. Except for Community Care Facilities described in Objective 4.1.2, developments in which residential usage is the sole or primary use shall be prohibited on commercially designated lands. Numerous zone districts shall be utilized to direct specific categories of commercial uses to the appropriate areas of the County. Except as provided in Policy 2.2.2.3, this designation is considered appropriate only within Community Regions and Rural Centers.</p>	<p>Consistent: The proposed project site is currently designated for Industrial land uses. Approval of the General Plan amendment and rezone would change the land use designation to Commercial and the zoning to General Commercial. The Proposed Project includes a commercial retail center, which is a permitted use under both designations. No residential uses are proposed as a part of this Project. Therefore, the Project would be consistent with this policy.</p>
<p>Policy 2.2.1.5: The General Plan shall provide for the following building intensities in each land use designation as shown in Table 2-3: (Floor Area Ratio for Commercial Land Use Designation: 0.85 FAR)</p>	<p>Consistent: The proposed commercial retail center would have a Floor Area Ratio (FAR) of 0.23 (280,515 square feet/27.61 acres [1,202,691.6 square feet]). Therefore, the Project would be below the maximum FAR and consistent with this policy. Note that the FAR is based on the assumption that no buildings would be more than a single story. Should more than one story be included in any building, the Project's FAR would increase but would be required to stay below the maximum FAR of 0.85.</p>
<p>Policy 2.2.3.1: The Planned Development (-PD) Combining Zone District, to be implemented through the zoning ordinance, shall allow residential, commercial, and industrial land uses consistent with the density specified by the underlying zoning district with which it is combined. Primary emphasis shall be placed on furthering uses and/or design that provide a public or common benefit, both on- and off-site, by clustering intensive land uses to minimize impact on various natural resources, avoid cultural resources where feasible, minimize public</p>	<p>Consistent: Approval of the proposed Planned Development (PD) overlay and Planned Development application will allow for an efficient utilization of the property, allow flexibility in developing the ultimate site, and encourage a more efficient use of public and/or private service and uses. Since the Proposed Project does not involve a residential element, dedication of open space lands is not required. Therefore, the Project would be consistent with this policy.</p>

Table 4.8-2 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
<p>health concerns, minimize aesthetic concerns, and promote the public health, safety, and welfare. A goal statement shall accompany each application specifically stating how the proposed project meets these criteria. A. The major components of a Planned Development in residential projects shall include the following: 1. Commonly owned or publicly dedicated open space lands of at least 30 percent of the total site. Within a community area, the commonly owned open space can be developed for recreational purposes such as parks, ball fields, or picnic areas. Commonly owned open space does not include space occupied by infrastructure (e.g., roads, sewer, and water treatment plants). 2. Clustered housing units or lots designed to conform to the natural topography. B. Non-residential planned developments shall be accomplished through the Zoning Ordinance.</p>	
<p>Policy 2.2.3.2: The calculation of development density for purposes of Planned Developments shall be based on the maximum density permitted by the underlying zone district(s). No density shall be attributed to bodies of water, such as lakes, rivers, and perennial streams, excluding wetlands.</p>	<p>Consistent: The proposed project site does not include any bodies of water, such as lakes, rivers, and perennial streams. The proposed Diamond Dorado Retail Center has a FAR of 0.23 and a building coverage of 23 percent, both of which are within the General Plan and Zoning ordinance maximum allowable FAR of .85 and building coverage of 60 percent, respectively. Therefore, the Diamond Dorado Retail Center is below the maximum allowable FAR and building coverage for the Commercial land use designation and General Commercial Zone, respectively. Accordingly, the Proposed Project is consistent with this policy.</p>
<p>Policy 2.2.3.3: Where an application to apply the - PD combining zone district also includes the request to rezone the base zone district(s), said rezone shall not occur where the land cannot support a higher density or intensity of land use due to infrastructure availability, physical and topographic constraints, or otherwise conform to Policy 2.2.5.3.</p>	<p>Consistent: The proposed project site currently contains existing infrastructure. New infrastructure systems would be designed to meet the needs of the proposed commercial retail center. There are no physical or topographical constraints that would limit the project site's support of the proposed density. Furthermore, the allowable FAR for the both the existing Industrial and proposed Commercial land use designations are 0.85, and the Proposed Project would not exceed a FAR of 0.85. Therefore, the Project would be consistent with this policy.</p>
<p>Policy 2.2.5.2: All applications for discretionary projects or permits including, but not limited to, General Plan amendments, zoning boundary amendments, tentative maps for major and minor land divisions, and special use permits shall be reviewed to determine consistency with the policies of the General Plan. No approvals shall be granted unless a finding is made that the project or permit is consistent with the General Plan. In the case of General Plan amendments, such amendments can be</p>	<p>Consistent: The Proposed Project would include a General Plan Amendment, rezone, tentative map, and Planned Development. This Draft EIR includes a determination of project consistency with applicable General Plan policies under the proposed Commercial designation. Approval of the General Plan amendment and rezone and of this Draft EIR would ensure consistency with the General Plan. Therefore, the Project would be consistent with this policy.</p>

Table 4.8-2 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
rendered consistent with the General Plan by modifying or deleting the General Plan provisions, including both the land use map and any relevant textual policies, with which the proposed amendments would be inconsistent.	
<p>Policy 2.2.5.3: The County shall evaluate future rezoning: (1) To be based on the General Plan's general direction as to minimum parcel size or maximum allowable density; and (2) To assess whether changes in conditions that would support a higher density or intensity zoning district. The specific criteria to be considered include, but are not limited to, the following: 1. Availability of an adequate public water source or an approved Capital Improvement Project to increase service for existing land use demands; 2. Availability and capacity of public treated water system; 3. Availability and capacity of public waste water treatment system; 4. Distance to and capacity of the serving elementary and high school; 5. Response time from nearest fire station handling structure fires; 6. Distance to nearest Community Region or Rural Center; 7. Erosion hazard; 8. Septic and leach field capability; 9. Groundwater capability to support wells; 10. Critical flora and fauna habitat areas; 11. Important timber production areas; 12. Important agricultural areas; 13. Important mineral resource areas; 14. Capacity of the transportation system serving the area; 15. Existing land use pattern; 16. Proximity to perennial water course; 17. Important historical/archeological sites; and 18. Seismic hazards and present of active faults. 19. Consistency with existing Conditions, Covenants, and Restrictions.</p>	<p>Consistent: The proposed commercial retail Project would include a General Plan amendment and rezone. This Draft EIR considers the following:</p> <ol style="list-style-type: none"> 1. Availability of public water sources 2. Availability and capacity of public treated water system 3. Availability and capacity of public waste water treatment system 4. Distance to and capacity of the serving elementary and high school 5. Response time from nearest fire station handling structure fires 6. Distance to nearest Community Region or Rural Center 7. Erosion hazard 8. Septic and leach field capability 9. Groundwater capability to support wells 10. Critical flora and fauna habitat areas 11. Important timber production areas 12. Important agricultural areas 13. Important mineral resource areas 14. Capacity of the transportation system serving the area 15. Existing land use pattern 16. Proximity to perennial water course 17. Important historical/archeological sites 18. Seismic hazards and present of active faults 19. Consistency with existing Conditions, Covenants, and Restrictions. <p>Implementation of mitigation resulting from analysis in this Draft EIR would ensure that impacts resulting from the Proposed Project would be mitigated. Therefore, the Project would be consistent with this policy.</p>
<p>Policy 2.2.5.18: Standards in the form of setbacks and other requirements shall be added to the Zoning Ordinance to buffer incompatible uses (e.g., commercial adjacent to residential).</p>	<p>Consistent: As shown on the site plan, the Proposed Project would comply with setbacks and other requirements (as modified through the Planned Development) set forth in the Zoning Ordinance to buffer incompatible uses. Approval of the proposed General Plan amendment and rezone would ensure consistency with the General Plan. Therefore, the Project would be consistent with this policy.</p>

Table 4.8-2 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
<p>Policy 2.2.5.20: All non-residential development, all subdivisions, residential development on existing legal lots involving any structure greater than 4,000 square feet of living area or requiring a grading permit for which land disturbance of an area of 20,000 square feet or more occurs, and all development located on lands identified as Important Biological Corridor (-IBC) on the Land Use Diagram, Figure LU-1, shall be permitted only upon a finding that the development is consistent with this General Plan and the requirements of all applicable County ordinances, policies, and regulations. For projects that do not require approval of the Planning Commission or Board of Supervisors, this requirement shall be satisfied by information supplied by the applicant demonstrating compliance. All building permits shall be consistent with the land uses described in the land use designation established for the site, as provided in Policy 2.2.1.2 and set forth on Figure LU-1.</p>	<p>Consistent: The proposed commercial retail center would include structures that are greater than 4,000 square feet and would be consistent with the Commercial and General Commercial regulations as set forth by the General Plan and Zoning Ordinance. Approval of the proposed General Plan amendment and Rezone would ensure consistency with the General Plan. Therefore, the Project would be consistent with this policy.</p>
<p>Policy 2.2.5.21: Development projects shall be located and designed in a manner that avoids incompatibility with adjoining land uses that are permitted by the policies in effect at the time the development project is proposed. Development projects that are potentially incompatible with existing adjoining uses shall be designed in a manner that avoids any incompatibility or shall be located on a different site.</p>	<p>Consistent: The proposed project site is located among primarily industrial land uses. Approval of the proposed General Plan amendment and rezone would ensure consistency with the General Plan. Therefore, the Project would be consistent with this policy.</p>
<p>Goal 2.3 - Natural Landscape Features: Maintain the characteristic natural landscape features unique to each area of the County.</p>	<p>Consistent: The proposed project site has been previously disturbed and only marginal natural landscaping remains. Implementation of the Proposed Project would include landscaping utilizing vegetation compatible with the surrounding natural landscaping. Therefore, the Project would be consistent with this goal.</p>
<p>Policy 2.3.1.1: The County shall continue to enforce the tree protection provisions in the Grading Erosion and Sediment Control Ordinance and utilize the hillside road standards.</p>	<p>Consistent: The Proposed Project would abide by all applicable tree protection provisions in the Grading Erosion and Sediment Control Ordinance as outlined in Chapter 15.14.000 of the El Dorado County Ordinance Code. No hillside roads would be constructed.</p>
<p>Policy 2.3.1.2: The Zoning Ordinance shall include consideration of a standard for parking lot shading and provision of street trees in all new development projects.</p>	<p>Consistent: As depicted on the Exhibit 3-8a and 3-8b, development of the project site includes trees, which would be provided throughout the parking lot and along project site boundaries. Landscaping would also be provided in accordance with Chapter 17.18.090 of the Ordinance Code. Therefore, the Proposed Project would be consistent with this policy.</p>

Table 4.8-2 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
<p>Policy 2.4.1.2: The County shall develop community design guidelines in concert with members of each community which will detail specific qualities and features unique to the community as Planning staff and funds are available. Each plan shall contain design guidelines to be used in project site review of all discretionary project permits. Such plans may be developed for Rural Centers to the extent possible. The guidelines shall include, but not be limited to, the following criteria: A. Historic preservation B. Streetscape elements and improvements C. Signage D. Maintenance of existing scenic road and riparian corridors E. Compatible architectural design F. Designs for landmark land uses G. Outdoor art</p>	<p>Consistent: The Proposed Project has been designed in compliance with the Missouri Flat Design Guidelines, including the type of architectural character and landscaping. Therefore, the Project would be consistent with this policy.</p>
<p>Policy 2.4.1.4: Strip commercial development shall be precluded in favor of clustered contiguous facilities. Existing strip commercial areas shall be developed with common and continuous landscaping along the street frontage, shall utilize common driveways, and accommodate parcel-to-parcel internal automobile and non-automobile circulation where possible.</p>	<p>Consistent: The Proposed Project is not considered a strip commercial development and has been designed to include clustered contiguous facilities. Therefore, the Project would be consistent with this policy.</p>
<p>Policy 2.5.1.1: Low intensity land uses shall be incorporated into new development projects to provide for the physical and visual separation of communities. Low intensity land uses may include any one or a combination of the following: parks and natural open space areas, special setbacks, parkways, landscaped roadway buffers, natural landscape features, and transitional development densities.</p>	<p>Consistent: The Proposed Project would include the establishment of landscaping around most of the proposed project site, throughout the parking areas, and in front of the retail buildings. In addition, raised landscape planters would be located near the primary entries of the stores and integrated into the cart storage screening walls. Therefore, the Project would be consistent with this policy.</p>
<p>Policy 2.5.2.2: New commercial development should be located near by existing commercial facilities to strengthen existing shopping locations and avoid strip commercial.</p>	<p>Consistent: The proposed project site is located east of extensive commercial development along Missouri Flat Road and north of commercial development along Pleasant Valley Road in the community of Diamond Springs. Therefore, the Project would be consistent with this policy.</p>
<p>Policy 2.5.2.3: New community shopping centers should also contain the applicable design features of Policy 2.5.2.1 as follows:</p> <p>A. Maximum first floor building size should be sized to be suitable for the site; B. Residential use on second story; C. No outdoor sales or automotive repair facilities; D. Reduced setback with landscaping and walkways; E. Interior parking, or the use of parking structure; F. Bicycle access with safe and convenient bicycle storage area; G. On-street parking to reduce the amount of on-site parking; H. Community bulletin boards/computer kiosks; I. Outdoor artwork, statues, etc., in</p>	<p>Consistent: The Proposed Project commercial retail center would provide additional commercial and service options for the immediate and regional community. The majority of the parking would be located in front of the retail buildings. In addition, pedestrian and bicycle access will be provided to through the dedication of an easement to the County for a bicycle pathway connecting the site to the El Dorado Multi-Use Trail. Patterned paving would be used to demarcate pedestrian crossing areas in front of the retail buildings. Pedestrian movement in front of the retail stores would also be protected with decorative bollards. Therefore, implementation of the Proposed Project would be consistent with this policy.</p>

Table 4.8-2 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
prominent places; and J. Pedestrian circulation to adjacent commercial centers.	
Policy 2.7.1.1: The Sign Ordinance shall include design review for signs within the foreground and background of the designated scenic corridors commensurate with the goal of scenic corridor viewshed protection.	Consistent: The Proposed Project's signage is consistent with the Missouri Flat Corridor Design Guidelines. The Project is not located in an area designated as within or containing a scenic corridor. Therefore, the Project would be consistent with this policy.
Policy 2.8.1.1: Development shall limit excess nighttime light and glare from parking area lighting, signage, and buildings. Consideration will be given to design features, namely directional shielding for street lighting, parking lot lighting, sport field lighting, and other significant light sources, that could reduce effects from nighttime lighting. In addition, consideration will be given to the use of automatic shutoffs or motion sensors for lighting features in rural areas to further reduce excess nighttime light.	Consistent: Parking lot and building lighting fixtures would be designed to cast light downward, thereby providing lighting at the ground level for pedestrian safety while reducing glare to adjacent properties. Therefore, the Project would be consistent with this goal.
Source: El Dorado County General Plan, 2004; MBA, 2010.	

El Dorado County Ordinance Code

Under Chapter 17, Zoning Ordinance, the El Dorado County Ordinance Code sets forth regulations to ensure that development and land use activities protect and promote the health, safety, comfort, convenience, prosperity, and general welfare of residents and businesses in the County. In addition to a General Plan Amendment, the applicant is requesting an associated rezoning to General Commercial (CG) with a Planned Development (PD) overlay and a Development Plan for the proposed commercial center. The provisions of the proposed zoning and overlay are described below.

General Commercial Zoning

As indicated by Chapter 17.32.170, the General Commercial Zoning district provides for the conduct of sales, storage, distribution and light manufacturing businesses of the type that do not ordinarily cause more than a minimal amount of noise, odor, smoke, dust, or other factors tending to disturb the peaceful enjoyment of adjacent residential or agricultural land use zones; and further, to provide a close relationship between warehousing, distribution and retail sales. Projects located in areas with General Commercial Zoning are subject to all provisions included in Chapters 7.14 (Miscellaneous Development Requirements), 7.16 (Signs), and 7.18 (Off-Street Parking and Loading).

The following provisions shall apply in CG general commercial zones unless and until a variance is obtained from the planning commission:

- A. Minimum lot area, ten thousand (10,000) square feet or larger as determined by the health department if on a septic system;
- B. Maximum building coverage, sixty percent (60%), the remaining forty percent (40%) will be to provide open space, parking and circulation;
- C. Minimum lot width, sixty feet (60');
- D. Minimum yard: front, ten feet (10'); sides and rear, five feet (5') or zero feet and fireproof wall without opening; provided, however, that all hotel and motel structures shall have at least five feet (5') side and rear yards;
- E. Maximum building height, fifty feet (50');
- F. Signs allowed by right, two (2) signs, neither of which shall exceed fifty (50) square feet in total area of any one display surface or one (1) sign not exceeding eighty (80) square feet in area, advertising authorized activities on the premises and subject to all applicable general provisions and exceptions pertaining to signs in chapters 17.14, 17.16 and 17.18 (Prior code §9419(g),(h)).

Uses allowed within General Commercial Zoning are as shown in Table 4.8-3.

Table 4.8-3: Permitted Uses within General Commercial Zones

Permitted Uses		
<ul style="list-style-type: none"> - Amusement enterprises when fully enclosed within a building, - Antique store when fully enclosed within a building, - Appliance store and repair (new and used) when fully enclosed within a building, - Artist studios, - Auditoriums, exclusive of tents or temporary structures, - Automobile and truck sales, sales lots, garages, including body and paint shops, - Bakery plant, including retail and distribution terminal, - Banks, - Barbershops, - Baths, Turkish and similar types, including health studios and gymnasiums, - Beauty shops, - Billiard and pool halls, 	<ul style="list-style-type: none"> - Delicatessens, - Drayage and furniture storage warehouses, - Dress shops, - Dressmaking shops, - Drugstores, - Dry cleaning plants, - Drygoods and notion stores, - Dwelling for a caretaker or superintendent whenever the use requires the on-site residence of such person, but not including a mobile home, - Electronic manufacturing and maintenance, - Farm, home and garden equipment sales and rentals, - Feed and fuel sales, - Florist shops, - Frozen food lockers, - Fruit and vegetable stores, - Funeral parlors and mortuaries, 	<ul style="list-style-type: none"> - Paint stores, - Packing and crating establishments, - Parcel delivery service, - Parking lots, - Pawnshops, - Plumbing shops, - Printing shops, - Public buildings, - Public parks and playgrounds, - Public utility buildings and structures, excluding sewer treatment plants, - Publishing plants, - Radio and television broadcasting studios and stations, - Radio and television sales and repair services, - Restaurants, - Schools, private, public and trade, - Secondhand stores when fully enclosed within a building, - Sheetmetal shops,

Table 4.8-3 (cont.): Permitted Uses within General Commercial Zones

Permitted Uses		
<ul style="list-style-type: none"> – Bird and pet shops, – Blueprinting, photostating, and photofinishing facilities, – Boat building and sales, – Bookstores, – Bottling plants, – Bowling alleys, – Building materials, including storage and sales, – Cabinet and carpenter shops, – Camera shops, – Carpet cleaning, – Car wash, – Churches, – Clubs and lodges, – Cocktail lounges, – Confectionery stores, – Contractor's shops, – Creameries, dairy products manufacturing and distribution plants, – Dancehalls, 	<ul style="list-style-type: none"> – Furniture stores and warehouses when fully enclosed in a building, – Garment manufacture, – Greenhouses, nursery, – Grocery stores, – Hardware stores, – Hotels and motels, – Ice and cold storage plants, – Janitorial services, – Jewelry stores, – Laboratories, medical, – Liquor stores, – Lumber yards, – Meat markets, – Millinery shops and manufacturing, – Reserved, – Music and dancing schools, – Newsstands, – Newspaper offices and publishing plants, – Offices, business and professional, 	<ul style="list-style-type: none"> – Service stations, – Shoe repair shops, – Shoe shops, – Stationery stores, – Tailor shops, – Taxidermists, – Tire rebuilding, recapping and retreading, – Trailer sales and off-site rentals.
Source: El Dorado County Zoning Ordinance, 2008.		

Table 4.8-4: Uses Requiring Special Use Permits within General Commercial Zones

Uses Requiring Special Use Permits		
<ul style="list-style-type: none"> – Airports, heliports and their accessory uses and structures; – Amusement enterprises (permanent) outdoor; – Animal hospital or clinic for large and small animals; – Appliance, furniture and secondhand stores when not fully enclosed within a building; 	<ul style="list-style-type: none"> – Auction yards; – Central sewer plant facilities; – Kennels; – Laundry plants; – Mobile home parks; – Other sign sizes and applicable general provisions as itemized in Chapters 17.14, 17.16 and 17.18; 	<ul style="list-style-type: none"> – Stables and riding academies; – Health facility; – Community care facility.
Source: El Dorado County Zoning Ordinance, 2008.		

Planned Development Overlay

The Planned Development (PD) overlay is used for more intensive land uses throughout the County, and provides a public or common benefit, both on- and offsite, by clustering intensive land uses to

minimize impact on various natural resources; avoid cultural resources; minimize public health concerns; minimize aesthetic concerns; and promote the public health, safety, and welfare.

Chapters 17.02 and 17.04 of the Zoning Ordinance outline the purpose of a Planned Development overlay for commercial development as follows:

- A. To allow use of modern planning and development techniques, effect more efficient utilization of land and to allow flexibility of development;
- B. To aid in the reduction of development costs, and to provide for a combination of different land uses which complement each other but which may not in all aspects conform to the existing zoning regulations;
- C. To encourage a more efficient use of public and/or private services;
- D. The location of an acceptable planned development land use does not, nor is it intended to create further commercial, residential, agricultural or industrial development within the area surrounding the planned development zone;

Missouri Flat Design Guidelines

The Missouri Flat Design Guidelines provides design guidelines pertaining to exterior architecture, lighting, landscaping, circulation, signage, and other project design elements that pertain to new development along the Missouri Flat road commercial corridor. The design guidelines and streetscape improvement standards contained in this document are intended to improve the quality and character of the built environment and create a pedestrian-friendly atmosphere with enhanced public spaces along the corridor.

El Dorado County Subdivision Ordinance

The El Dorado County Subdivision Ordinance contains requirements concerning major and minor land divisions, lot line adjustments, certificates of compliance, and design waivers. No design waivers are requested for the Proposed Project.

El Dorado County Grading, Erosion, and Sediment Control Ordinance

The El Dorado County Grading, Erosion, and Sediment Control Ordinance was enacted for the purpose of regulating grading within the unincorporated area of El Dorado County to safeguard life, limb, health, property, and public welfare; to avoid pollution of watercourses; and to ensure that the intended use of a graded site is consistent with the El Dorado County General Plan, any Specific Plans adopted thereto, the adopted Storm Water Management Plan, California Fire Safe Standards, and applicable El Dorado County ordinances including the Zoning Ordinance and the California Building Code (El Dorado County Final Revised Grading Ordinance, August 10, 2010). This ordinance establishes the administrative procedures for issuance of permits and provides for approval of plans and inspection of grading construction.

El Dorado County Design and Improvement Standards Manual

The County's Design and Improvement Standards Manual includes design specifications for a variety of land development issues such as lot and road design. Currently, El Dorado County Development Services Department—in conjunction with the Department of Transportation, the Environmental Management Department, the County Surveyor's Office, the Economic Development Advisory Committee, and local fire district personnel—is preparing a Land Development Manual (LDM), intended to replace the Design and Improvement Standards Manual. When adopted, the LDM will provide design standards and information regarding the development of land in the County, addressing roads, lot design, fire protection, water, sewage disposal, mapping requirements, and other design criteria.

4.8.4 - Methodology

Michael Brandman Associates (MBA) evaluated the potential for land use impacts through site reconnaissance and review of applicable County of El Dorado land use policy documents. MBA personnel performed site reconnaissance on multiple occasions of the parcels that constitute the project site and surrounding land uses. Photographs were taken of the project site and surrounding land uses to document existing conditions. MBA reviewed the El Dorado County General Plan, the El Dorado County Ordinance Code, which includes the Zoning Ordinance, and identified applicable policies and provisions that pertain to the Proposed Project.

4.8.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, land use impacts resulting from the implementation of the Proposed Project would be considered significant if the project would:

- a) Physically divide an established community?
- b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?
- c) Conflict with any applicable habitat conservation plan or natural communities conservation plan? (Refer to Section 6.5, Effects Found Not To Be Significant.)

4.8.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Divide an Established Community

Impact LU-1: The Project would not physically divide an established community.

Impact Analysis

The project site includes areas of highly disturbed land, ruderal (weedy) vegetation, large shrubs and trees, and Throwita Way. Large portions of the project site are currently used or have been used in the past for storage and parking for the nearby industrial land uses. Surrounding areas consist of existing industrial and commercial land uses to the north and west; scattered residential and undeveloped land to the east; and industrial, commercial, residential, and undeveloped land to the south. These land uses are non-dependent on one another. The Diamond Dorado Retail Center (DDRC) would be a logical extension of the existing commercial and industrial land uses south and east of the proposed project site, thereby adding continuity to the existing land uses. Project development would remove Throwita Way but would develop new access to the Material Recovery Facility along the southern border of the DDRC connecting to Lime Kiln Road. Accordingly, the Proposed Project would not physically divide an established community and impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

General Plan Consistency

Impact LU-2: The Project would not conflict with any applicable provisions of the El Dorado County General Plan.

Impact Analysis

Policy 2.2.5.20 of the County's General Plan requires new development to be consistent with the General Plan and the requirements of all applicable County ordinances, policies, and regulations. The Project site is not currently designated or zoned for the commercial uses proposed by the Project; however, approval of the requested General Plan Amendment and rezone would bring the Proposed Project into compliance and would conform to the Goals and Policies set forth in the County's General Plan.

As previously noted, the El Dorado County General Plan currently designates the project site as Industrial. According to the General Plan, the purpose of the Industrial land use designation is to provide for a full range of light and heavy industrial uses, including manufacturing, processing, distribution, and storage. Many of these activities occur around the project site, but none currently

occur on the project site. The Industrial land use designation has a maximum floor area ratio (FAR) of 0.85, the same as the maximum FAR for lands designated as Commercial by the General Plan. Changes resulting from the implementation of the land use redesignation would be speculative, given there are no separate Industrial land use projects proposed for the project site to be compared against the Proposed Project. In accordance with CEQA Guidelines Section 15145, forecasting future land uses is speculative in this respect and, therefore, does not warrant further discussion. Because the FARs for both land use designations are the same, it is reasonable to assume that changes resulting from the redesignation would not be significant.

By designating and zoning the site for commercial uses, and developing the DDRC, the County would be taking steps to achieve the economic growth outlined in the County's General Plan. The Economic Development Element of the General Plan indicates the County's intent to provide expanded shopping opportunities to the residents of El Dorado County while improving retail sales capture within the County and promoting job generating land uses (refer to Policies 10.1.5.5, 10.1.9.3, and 10.2.4.3). In addition, the General Plan emphasizes the importance of locating new development in an area with existing infrastructure and acceptable service levels (Policy 10.2.1.8).

Development of the DDRC as proposed would include the construction of nine commercial/retail buildings totaling approximately 280,515 square feet. The DDRC would provide job opportunities for residents in the County and shopping opportunities for residents and tourists. The location of the proposed DDRC would be conveniently located near the community of Diamond Springs and adjacent to developed commercial and retail uses along Missouri Flat Road. By providing additional goods and services to the area, development of the DDRC would create a convenient shopping destination, which would draw both local and regional shoppers to the area and complement the existing nearby commercial and retail establishments. Additionally, the DDRC would be accessible from the proposed El Dorado Multi-Use Trail and provide pedestrian walkways that connect the various buildings and establishments of the DDRC, which realizes Policy TC-4i of the General Plan. The Project's consistency with applicable General Plan policies and goals are analyzed in each analysis section of this Draft EIR. Consistency with General Plan policies regarding land use are addressed in Table 4.8-2. Accordingly, the Project would not conflict with any applicable provisions of the El Dorado County General Plan.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Ordinance Code Consistency

Impact LU-3:	The Project would not conflict with an applicable provision of the El Dorado County Ordinance Code.
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Impact Analysis

This impact discussion evaluates the Proposed Project's consistency with the applicable provisions of the El Dorado County Ordinance Code (specifically Chapter 17, Zoning Ordinance), including the zoning district development standards, signage, and parking.

Development Standards

The project site is currently zoned for Industrial (I) use. Approval of the Proposed Project would include a rezone to General Commercial with a Planned Development overlay (CG-PD) and Development Plan. The DDRC has been designed to comply with applicable regulations set forth by the Zoning Ordinance for General Commercial (CG) zoned parcels with applicable modifications allowed through the Development Plan.

The project site's current Industrial zoning designation allows by right any use allowed in a Commercial zone except residential. The maximum building coverage allowed in Industrial zones is 60 percent, the same as the maximum building coverage allowed in Commercial zones. Because the maximum building coverage for both zones are the same, and the proposed commercial use would be allowed under the existing Industrial zone, it is reasonable to assume that changes resulting from the rezone would not be significant and, therefore, would not conflict with development standards contained within the County Ordinance Code.

As a commercial retail center, the DDRC would be consistent with the allowable uses in a General Commercial (CG) zone, as listed in Table 4.8-3. Should any other uses be established at the DDRC, such as those listed in Table 4.8-4, a special use permit would be required. The DDRC would conform to the minimum lot area, width, and yard guidelines. Buildings proposed as a part of the DDRC would be less than 50 feet in height. Collectively, the DDRC's building coverage would equal 23 percent (280,515 square feet divided by 27.61 acres [1,202,691.6 square feet]), which is within the maximum allowable building coverage of 60 percent.

Development Plan

In addition to a rezone to General Commercial (CG) and Planned Development (PD) overlay, the Project applicant is requesting the adoption of a Development Plan for the commercial center. The purpose of applying a PD Overlay, which requires adoption of a Development Plan (as is described in Chapters 17.02 and 17.04 of the County's Zoning Ordinance), is to allow for an efficient utilization of the property, to allow flexibility in developing the ultimate site, and to encourage a more efficient use of public and/or private services and utilities. Under a Development Plan, the proposed DDRC Project would be allowed to vary from the regulations of the underlying zoning district. For example, as proposed and discussed in the following paragraph, the Proposed Project's freestanding signage would exceed the allowable signage allowed by the Ordinance Code; however, the PD overlay would

allow for such an inconsistency if the proposed Development Plan is approved by the County. Application of the PD overlay allows approval of the proposed Development Plan, thereby making the proposed Development Plan consistent with the Zoning Ordinance

Signs (Chapter 17.16.000)

Project signage has been developed consistent with the Missouri Flat Design Guidelines. The Project would include up to 11 freestanding signs located throughout the project site and along the Project's road frontages. The largest freestanding sign would be approximately 30 feet tall and would be located at the main entrance to the Center on Diamond Springs Parkway. Other freestanding signs would be located at the corner of the Parkway and Diamond Road/SR-49, at the northwest corner of Lime Kiln Road and Diamond Road/SR-49, and at the westernmost access point on the Parkway. Approximately 78 wall-mounted signs would be located on the front, side, and rear elevations of the proposed buildings. Wall-mounted signs would consist of LED-illuminated channel letters. The exact number and size of wall-mounted signage would depend on the types of businesses leasing retail space at the DDRC. Appendix C includes the proposed sign plan.

Chapter 17.32.200 of the Zoning Ordinance allows two signs of 50 square feet in area or one sign of 80 square feet in area for General Commercial (CG) districts. The Proposed Project's 11 freestanding signs exceed this limit. Chapter 17.16.000 designates wall signs as exempt from sign area provisions. As required by the exemption, all wall signs must be attached to the wall of a building and cannot project more than 12 inches beyond the exterior face of the wall. Wall signs may not exceed 20 percent of the total area of the wall. However, because of the unknown number of and size of wall-mounted signs, the Proposed Project may or may not be exempt from sign area provisions. The Project applicant has already submitted a sign plan as part of the Development Plan application for review and approval. This sign plan has been designed in accordance with the Missouri Flat Design Guidelines and is consistent with the existing visual character of the surrounding area.

Off-Street Parking and Loading (Chapter 17.18.000)

The DDRC falls under the category of a regional shopping center and is therefore required to provide 1 parking space for every 300 square feet of gross floor area (3.33 spaces per 1,000 square feet), consistent with the El Dorado County Zoning Ordinance for a minimum of 934 parking spaces. The DDRC includes 1,279 total parking spaces and therefore meets the minimum requirement. Of these, 1,162 parking spaces are standard stalls, 90 would be compact stalls, and 27 would be compliant with the American with Disabilities Act (ADA). The 1,279 total parking spaces shown on the site plan exceed the minimum requirement of 935 (280,515 square feet ÷ 300) parking spaces. Section 17.18.040(D) of the Zoning Ordinance, states that the number of parking spaces may exceed the recommended parking requirements where it is determined that the proposed use would have a parking demand in excess of the minimum requirements. Provision of additional parking would be subject to Planning Commission and Board of Supervisor approval.

Parking stalls and lots are designed according to the design and construction standards set forth in Chapter 17.18.030 and 17.18.070. The DDRC provides a minimum of five loading spaces designed in accordance with Chapter 7.18.080 of the Ordinance Code. Landscaping buffers and parking lot shade trees would be provided as depicted in Exhibits 3-8a and 3-8b and in conformance with applicable regulations set forth in Chapter 7.18.090. Because the Project would meet the minimum amount of parking required and would seek approval for the additional parking as part of the Planned Development application, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Missouri Flat Design Guidelines Consistency

Impact LU-4:	The Project would not conflict with any applicable provisions of the Missouri Flat Design Guidelines.
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Impact Analysis

The project site is located within the boundaries of the Missouri Flat Design Guidelines (Guidelines). The underlying (proposed) zone district of General Commercial with a Planned Development overlay (CG-PD) (along with DDRC's Development Plan) sets forth the base for development standards for the proposed DDRC Project. The Guidelines are voluntary and primarily involve design and architecture standards that have been incorporated into the Proposed Project. If the project site were to remain designated for industrial use, and if it were developed for the purposes of industrial uses, the Guidelines may apply to a lesser degree because they are most applicable for commercial uses. As such, the change in land use would be beneficial with respect to the Guidelines overall goal of revitalizing the underutilized Missouri Flat Road commercial corridor. The Proposed Project's consistencies with the Guidelines are summarized below.

Architectural Character

The Guidelines direct projects to incorporate elements from Mountain, Agrarian, Craftsman, or Gold Rush architectural styles, and they provide an illustrated summary of the major building elements that distinguish each of the four styles.

Architectural design elements of the DDRC include board and batten siding, rough saw wood beams, wood posts and beams, pre-rusted corrugated metal roofing, metal trellises, and decorative false barn-door trim of the agrarian style, which comply with the Guidelines' directives.

Grading and Drainage

The Guidelines suggest that natural contours and vegetation should be retained as much as possible and slopes should blend with existing terrain. Drainage should direct water away from buildings and the use of bioswales are encouraged. Detention basins should not be located within the front setback unless designed as a landscape element.

Contours on the project site are largely a product of past industrial uses. While some natural vegetation is present onsite, its health and quality has been compromised by past industrial uses of the project site. Accordingly, retaining natural contours and vegetation is not desirable or practical for the proposed land use. The site will be graded and contoured to direct water towards a stormwater system network and away from buildings. The detention basin would be constructed north of the Diamond Springs Parkway and not within the DDRC's front setback.

Lot Layout

The Guidelines suggest that site layout should take advantage of the natural environmental setting. The use of indigenous materials and native vegetation is encouraged, and structures should be located and constructed to both preserve and take advantage of scenic views. Buildings should be oriented toward public places and recommended screening should be used to minimize conflicts with adjacent land uses. Dated "L" shaped suburban shopping centers should be avoided and areas between buildings should be purposefully designed.

The DDRC would preserve the existing riparian corridor located along the western and southern perimeter of the project site and incorporate this feature in the site design. Landscaping would be included around most of the project site and include County approved trees, and in general, vegetation that is native to the region or is drought-tolerant. The Project's buildings are situated surrounding the parking lot and, therefore, would not be designed in an "L" shape. Areas between buildings would be used for parking and would be landscaped. Accordingly, the lot layout would be consistent with the Guidelines.

Project Features

The Guidelines suggest entry features be incorporated into project entry points and reflect the character of the development. Outdoor spaces such as plazas and courtyards should be incorporated into the Project and should provide pedestrian amenities. Outdoor fixtures should be compatible with project architecture and should be shown on project plans. Outdoor spaces and employee break areas should be sheltered from noise and other incompatible uses.

The DDRC's main entrance has been designed to reflect the character of the development by incorporating signs and monuments consistent with the agrarian architectural style of the DDRC. A network of pedestrian sidewalks would connect all buildings. Accordingly, the DDRC would be consistent with project features outlined in the Guidelines.

Access and Circulation

The guidelines state that pedestrian and vehicle circulation should be designed for easy accessibility and be easily understandable. Parking areas should be landscaped to minimize summer glare and heat buildup and to reduce the negative visual impact associated with large areas of paving. DDRC site access would be provided from two driveways situated along the Diamond Springs Parkway and one right turn in and right turn out on Diamond Road (SR-49) north of Lime Kiln Road. Truck access to the site would be provided from the separately proposed and approved Parkway. Trucks would be able to access the site via the western most Diamond Springs Parkway driveway. The Project would also dedicate and secure an easement to the County for a bicycle pathway connecting the site to the proposed El Dorado Multi-Use Trail. A network of pedestrian sidewalks connects all buildings. Pedestrian movement in front of the retail stores would also be protected with decorative bollards. Accordingly, access and circulation would be consistent with the guidelines.

Parking Lot Layout

As indicated in the Guidelines, parking areas and vehicles should not be the dominant visual element of the site or streetscape and should be broken up with landscaping islands and buildings where feasible. Parking areas should include specialty landscaping, decorative lighting, clear pedestrian/vehicular circulation areas, and bicycle parking, and they should be designed so that vehicles and pedestrians are separated. Parking lots adjacent to and visible from public streets should be adequately screened from vehicle view. Specific design parameters are specified for parking lots with more than 100 spaces and include landscape and sidewalk recommendations.

The DDRC's site plan, including parking lot layout, has been designed with the Guidelines in mind. Landscaping strips would surround the DDRC site and the buildings have been located so they surround the parking lot and screen it from view. Trees and landscape islands would be located through out the parking lot and clearly identified pedestrian paths connect store entrances to sidewalks along Diamond Springs Parkway.

Pedestrian Connections

The Guidelines indicate that pedestrian circulation should be considered in site design, and walkways should be safe, visually appealing, easily identifiable, and well lit. Textured paving should be used to denote walkways rather than striping. Sidewalks at building entries should be a minimum of 11 feet wide. As shown on Exhibit 3-5, and as previously discussed, clearly identified pedestrian paths would be located throughout the DDRC Project. Textured paving would be used to denote main pedestrian walkways. Sidewalks at building entries would be 11 feet in width or wider.

General Landscaping Guidelines and Parking Lot Plantings.

The guidelines indicate that landscaping should be installed between the street and/or edge of the sidewalk and the building. Landscaping should be used to define areas, provide screening, serve as buffers between adjacent land uses, define focal points, and incorporate existing and introduced natural elements, such as rock formations and boulders. Trees should be used to create an intimate

scale, to enclose spaces, and to frame views. A selection of trees should be chosen to assist new development in looking established as quickly as possible, consider the mature size of trees, and limit problems caused by roots; placement parameters are specified. Vines, potted plants, and trellises should be used to provide texture and interest to buildings. Plant materials with common water needs should be grouped, and all plants should be on an automatic watering system. The Guidelines also indicate that parking areas should provide as much green as possible. Landscaping should be protected from encroaching vehicles. A landscape planting area should be provided at the end of each parking aisle and one landscaped finger island should be provided per every 10 spaces. Trees should be located throughout parking areas, and canopy trees should be used in parking areas to reduce the impact of large expanses of paving and to provide shade, as well as to reduce glare and heat buildup.

As indicated on Exhibits 3-8a and 3-8b, landscaping would be established throughout the DDRC site, along property boundaries, and adjacent to buildings, thereby providing visual buffers, focal points and a pedestrian scale. Trees used in landscaping the site would come in 25-inch boxes and would therefore establish themselves quickly. A varied mixture of shrubs, perennials, ground cover, and grasses would be planted throughout the site, including along buildings, to add texture and interest. The provision of landscape islands and trees throughout the parking lot are in accordance with parking lot planting guidance. Accordingly, the DDRC has been designed in accordance with the general landscaping guidelines.

Paving Treatments

As outlined in the Guidelines, paving materials should be varied in texture and color where pedestrian and vehicular areas overlap and should be used to denote pedestrian walkways and minimize the visual impacts of large expanses of pavement. As previously noted, textured paving would be used to denote main pedestrian walkways throughout the DDRC site.

Building Design and Form

The guidelines indicate that project designs should provide authentic representations of architectural styles and details versus contemporary, “no style” interpretations. A commercial complex should have a consistent architectural style with individual buildings designed with complementary forms and materials. All sides of commercial buildings in highly visible locations, such as at project entries, should receive equal design consideration and treatment (360-degree architecture). The use of corporate “chain” architecture is strongly discouraged. As discussed under Architectural Character, the DDRC would include architectural elements characteristic of the agrarian style throughout the entire site. Building elevations have been submitted to the County depicting the architectural styling of all building façades, on which agrarian elements have been included.

The Guidelines also indicate that the visual impact of large, monolithic structures should be minimized by creating a cluster of smaller buildings; that is, using several smaller, compact building footprints rather than one large footprint to provide an intimate scale. Architectural design should include varying planes to avoid “box like structures” and elements such as balconies, porches,

arcades, dormers, and cross gables should be used to add visual interest. Architectural details should be placed with pedestrian scale in mind. Recessed or projecting entries and articulation in the storefront mass is encouraged. The DDRC has been designed to include several separate building pads in order to reduce building massing and “box like structures.” Agrarian architectural elements such as wood posts and beams, metal trellises, and decorative false barn door trim would work to add visual interest. Building entries would be articulated to further reduce the appearance of building massing.

In summary, the DDRC has been designed to be consistent with the Missouri Flat Design Guidelines. Furthermore, the Project’s site plan and elevations have been submitted to the County for approval. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

4.9 - Noise

4.9.1 - Introduction

This section describes the existing noise setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the Environmental Noise Assessment for the Diamond Dorado Retail Center Project (Bollard Acoustical Consultants, Inc. 2010), which is included in this EIR as Appendix J, Noise. This section summarizes the information included in that technical report.

4.9.2 - Environmental Setting

Acoustical Terminology

In order to properly understand the current environmental setting as it relates to sound, it is important to understand the general technical considerations taken into account during noise analysis. Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is generally defined as unwanted sound. Various parameters characterize sound that describe the rate of oscillation of sound waves, the distance between successive troughs or crests, the speed of propagation, and the pressure level or energy content of a given sound wave. In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. The unit of sound pressure, a ratio of the faintest sound detectable by a keen human ear, is called a decibel (dB).

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

Because sound or noise can vary in intensity by over 1 million times within the range of human hearing, a logarithmic loudness scale similar to the Richter scale used for earthquake magnitude is used to keep sound intensity numbers at a convenient and manageable level. Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, noise levels at maximum human sensitivity are factored more heavily into sound descriptions in a process called A-weighting, written as dBA. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Any further reference to decibels in this report written as dB should be understood to be A-weighted values.

Many methods have been developed for evaluating community noise to account for, among other things:

- Variation in noise levels over time.
- Influence of periodic individual loud events.
- Community response to changes in the community noise environment.

Several methods have been developed to measure sound over a period of time, including:

- Equivalent Sound Level (L_{eq})
- Community Noise Equivalent Level (CNEL)
- Day/Night Average Sound Level (L_{dn})

These methods are described and defined below.

L_{eq}

Time variations in noise exposure are typically expressed in terms of a steady-state energy level equal to the energy content of the time-varying period (called L_{eq}), or, alternately, as a statistical description of the sound pressure level that is exceeded over some fraction of a given observation period. For example, the noise levels exceeded on 10 percent of readings is called L_{10} , the median (50th percentile) reading is called L_{50} , etc.

CNEL

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, State law requires that, for planning purposes, an artificial dB increment penalty be added to quiet time noise levels in a 24-hour noise descriptor called Community Noise Equivalent Level (CNEL).

L_{dn}

Another commonly used method is the day/night average level or L_{dn} . The L_{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the US Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period, called the L_{eq} . The L_{dn} is calculated by averaging the L_{eqs} for each hour of the day at a given location after penalizing the sleeping hours (defined as 10:00 p.m. to 7:00 a.m.) by 10 dBA to account for the increased sensitivity of people to noises that occur at night. The maximum noise level recorded during a noise event is typically expressed as L_{max} . The sound level exceeded over a specified time can be expressed as L_n (e.g., L_{90} , L_{50} , L_{10} , etc.). L_{50} equals the level exceeded 50 percent of the time, L_{10} equals the level exceeded 10 percent of the time, etc.

As previously mentioned, people respond to changes in sound pressure, which are measured on a noise scale in a logarithmic manner. In general, a 3-dB change in sound pressure level is considered a just detectable difference in most situations. A 5-dB change is readily noticeable, and a 10-dB change is considered a doubling (or halving) of the subjective loudness. A 3-dB increase or decrease

in the average traffic noise level is realized by a doubling or halving of the traffic volume, or by about a 7-mile-per-hour increase or decrease in speed.

For each doubling of distance from a point noise source, the sound level will decrease by 6 dB. In other words, if a person is 100 feet from a machine and moves 200 feet from that source, sound levels will drop by approximately 6 dB. Moving 400 feet away, sound levels will drop approximately another 6 dB. For each doubling of distance from a line source, such as a roadway, noise levels are reduced 3 to 5 decibels, depending on the ground cover between the source and the receiver.

Noise Exposure

An interior CNEL maximum noise level of 45 dB is mandated by the State of California Noise Insulation Standards (CCR, Title 24, Part 6, Section T25 28) for multiple-family dwellings and hotel and motel rooms. In 1988, the State Building Standards Commission expanded that standard to include all habitable rooms in residential use, including single-family dwelling units. Since normal noise attenuation within residential structures with closed windows is about 20 dB, an exterior noise exposure of 65 dB CNEL allows the interior standard to be met without any specialized structural attenuation (e.g., dual-paned windows). A noise level of 65 dB is also the level at which ambient noise begins to interfere with one's ability to carry on a normal conversation at reasonable separation without raising one's voice. Table 4.9-1 summarizes typical noise sources, levels, and responses.

Table 4.9-1: Noise Levels and Human Response

Noise Source	Noise Level (dBA)	Response
Library	30	Very quiet
Refrigerator humming	40	Quiet
Quiet office	50	Quiet
Normal conversation	60	Intrusive
Vacuum cleaner	70	Telephone use difficult
Freight train at 50 feet	80	Interferes with conversation
Heavy-duty truck at 50 feet	90	Annoying
Jet takeoff at 2,000 feet	100	Very annoying; hearing damage at sustained exposure levels
Unmuffled motorcycle	110	Maximum vocal effect; physical discomfort
Jet takeoff at 200 feet	120	Regular exposure over one minute risks permanent hearing loss
Shotgun firing	130	Pain threshold
Carrier jet operation	140	Harmfully loud
Source: Melville C. Branch and R. Dale Beland, 1970.		

Noise Attenuation over Distance

For a source of noise which radiates from a fixed location, such as the noise generated by stationary mechanical equipment, sound levels decrease at a rate of 6 dB per doubling of distance (spherical spreading or divergence). This sound decay rate also applies to maximum noise levels (L_{\max}) generated by both stationary and mobile noise sources, such as the airbrake release of a heavy truck. For example, a hypothetical reference level of 70 dB measured at a distance of 50 feet from a fixed location would decrease to a level of approximately 64 dB at a distance of 100 feet from that location (6 dB decrease per doubling of distance), and further decrease to approximately 58 dB at a distance of 200 feet (another 6 dB per doubling of distance from 100 to 200 feet).

For mobile noise sources, such as truck pass-bys, the sound decay rate used for computation of average noise levels (L_{eq}) is 4.5 dB per doubling of distance from the source. For example, a hypothetical reference level of 60 dB measured at a reference distance of 50 feet from a truck pass-by route would decrease to a level of approximately 55.5 dB at a distance of 100 feet from that fixed location (4.5 dB decrease per doubling of distance), and further decrease to 51 dB at a distance of 200 feet (another 4.5 dB per doubling of distance from 100 to 200 feet).

Groundborne Vibration Fundamentals

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of groundborne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may consist of the rattling of windows or dishes on shelves.

Vibration Descriptors

Several different methods are used to quantify vibration amplitude, such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (rms) amplitude of the vibration velocity. Because of the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels; it is denoted as (L_v) and is based on the rms velocity amplitude. A commonly used abbreviation is “VdB,” which in this text, is used when L_v is based on the reference quantity of 1 microinch per second.

Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans, whose threshold of perception is around 65 VdB. Offsite sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible groundborne noise or vibration. Exhibit 4.9-1 illustrates typical vibration levels and the associated human response.

Vibration Propagation

The propagation of groundborne vibration is not as simple to model as airborne noise. This is because noise in the air travels through a relatively uniform medium, while groundborne vibrations travel through the earth, which may contain significant geological differences. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a push-pull fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly, depending on the soil, but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

Construction-Related Vibration Level Prediction

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. Table 4.9-2 gives approximate vibration levels for particular construction activities. The data in the table provides a reasonable estimate for a wide range of soil conditions.

Table 4.9-2: Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v) at 25 feet
Pile driver (impact)	1.518 (upper range) 0.644 (typical)	112 104
Pile driver (sonic)	0.734 (upper range) 0.170 (typical)	105 93
Clam shovel drop (slurry wall)	0.202	94
Hydromill (slurry wall)	0.008 (in soil) 0.017 (in rock)	66 75
Large bulldozer	0.089	87
Caisson drill	0.089	87

Table 4.9-2 (cont.): Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second)	Approximate Vibration Level (L _v) at 25 feet
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58
Source: Federal Transit Administration, 1995.		

4.9.3 - Existing Noise Environment

To determine the existing noise level environment, 24-hour noise measurements were taken at two locations in the project study area representing the sensitive receptors nearest to the project site. Exhibit 4.9-2 depicts the noise measurement locations.

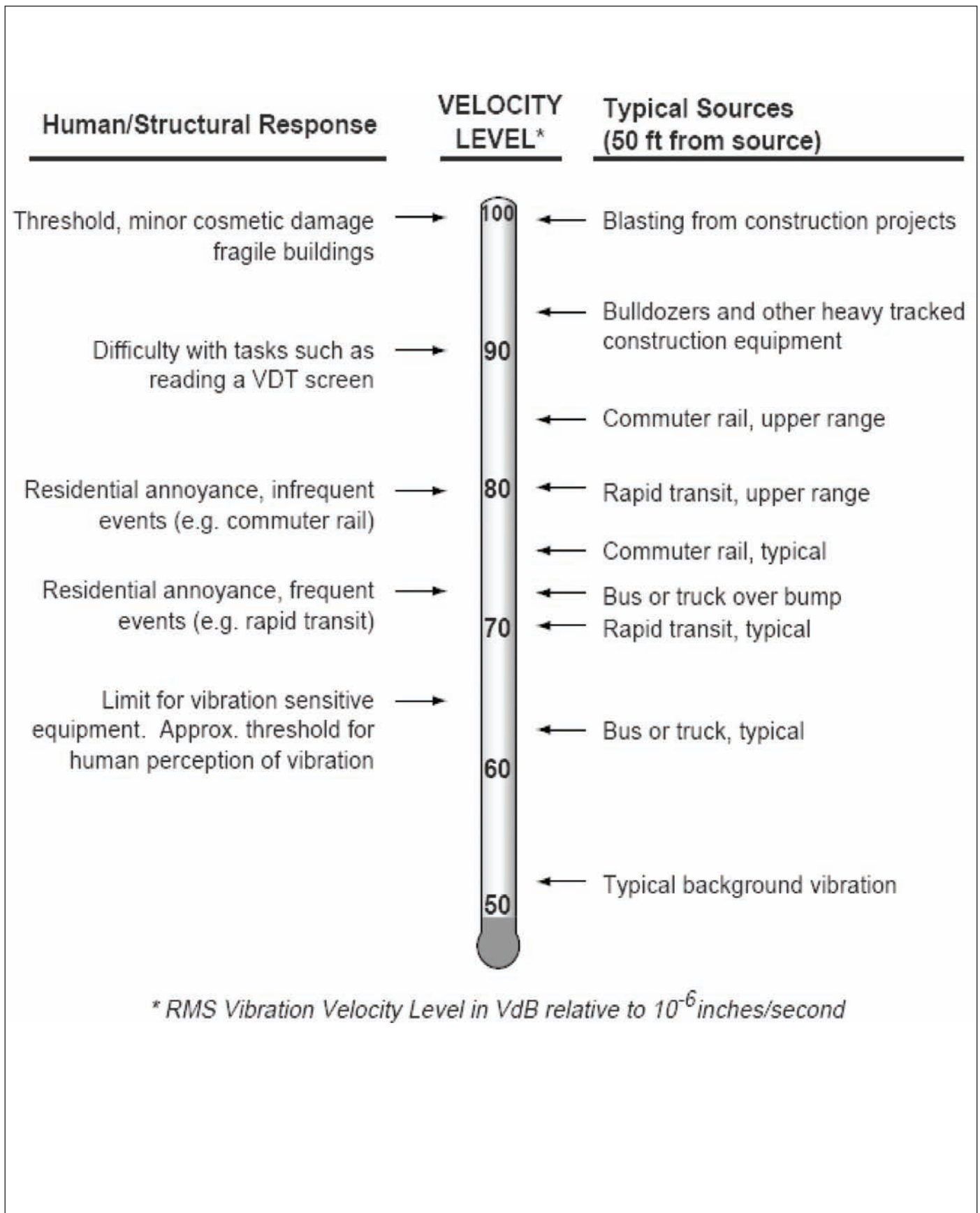
Existing Noise Environment at Nearby Sensitive Receptors

The existing ambient noise environment in the immediate project vicinity is defined primarily by noise from Diamond Road (SR-49) and the industrial uses in the area, including the Material Recovery Facility (MRF). To quantify existing ambient noise levels in the project vicinity, two continuous (24-hour) ambient noise level surveys were conducted on February 7 and 8, 2008 at 4150 Lime Kiln Road (Site 1) and 4000 SR-49 (Site 2). As shown in Exhibit 4.9-2, measurements were collected at Site 1 from within the backyard patio and at Site 2 from within the front yard landscaping, approximately 40 feet from the centerline of SR-49. The noise measurement sites were selected to represent the potentially affected residential land uses adjacent to the project site. Table 4.9-3 provides the results of the 24-hour ambient noise level surveys.

Table 4.9-3: Ambient Noise Measurement Results

Site	CNEL	Average Noise Levels (Range), dB					
		Daytime (7 a.m.-7 p.m.)		Evening (7 p.m.-10 p.m.)		Nighttime (10 p.m.-7 a.m.)	
		Hourly L _{eq}	Hourly L _{max}	Hourly L _{eq}	Hourly L _{max}	Hourly L _{eq}	Hourly L _{max}
1	64	54 (52-56)	73 (67-81)	48 (45-49)	61 (58-63)	58 (39-63)	66 (54-83)
2	70	71 (66-77)	90 (83-109)	64 (63-65)	83 (82-83)	60 (52-66)	82 (78-86)
Note: Refer to Exhibit 4.9-2 for noise measurement locations. Source: Bollard Acoustical Consultants, Inc.							

As shown in Table 4.9-3, Site 1 experiences elevated nighttime/early morning noise exposure due to operations at the adjacent MRF. Otherwise, noise exposure at Site 1 residence was relatively typical for a residential setting. The existing noise conditions at Site 2 are elevated due to significant Diamond Road (SR-49) traffic and MRF related traffic on Bradley Drive.



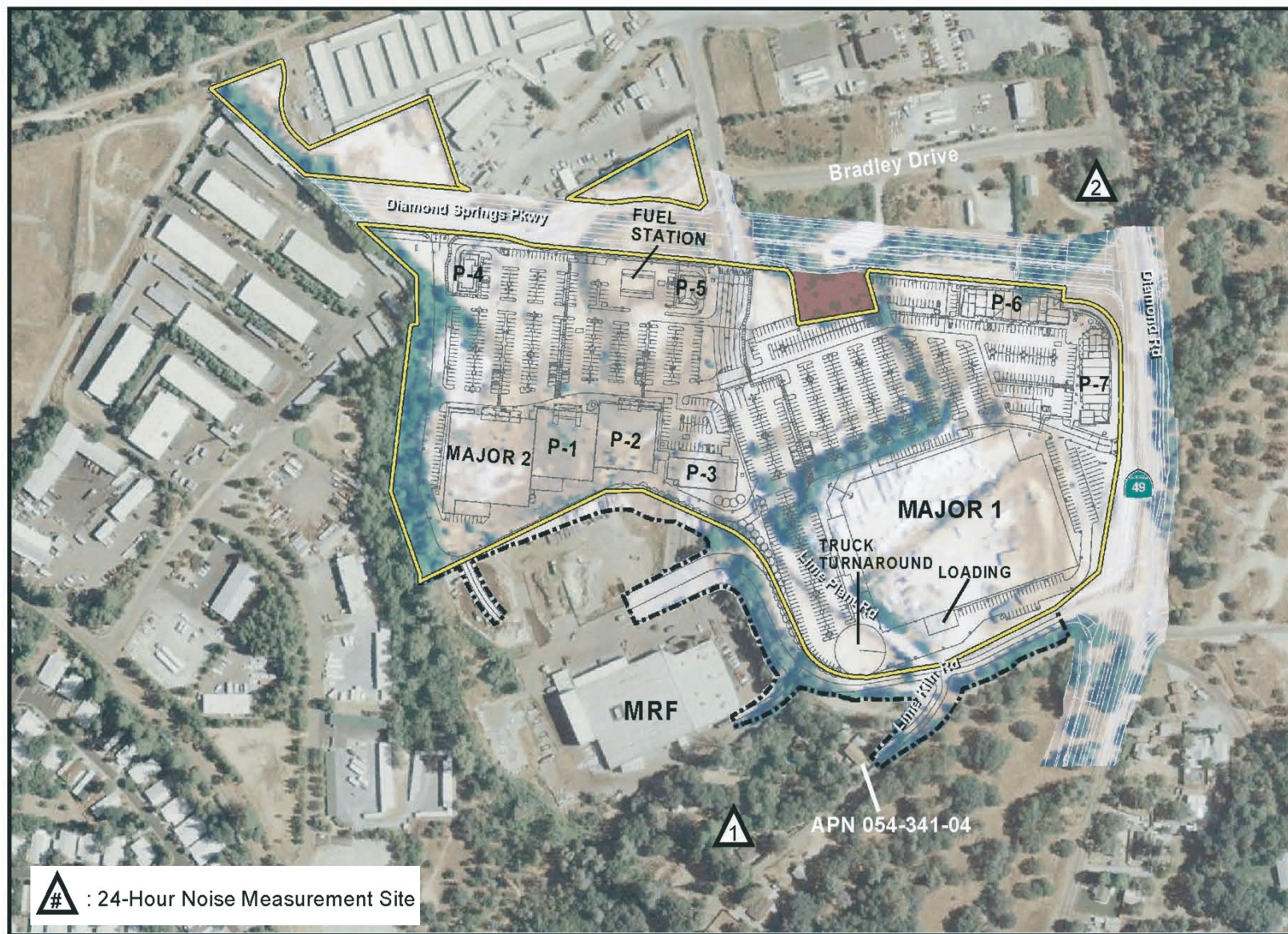
Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, 2004.



Michael Brandman Associates

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Exhibit 4.9-1 Typical Vibration Levels



Source: Bollard Acoustical Consultants, Inc. 2010.



NOT TO SCALE

Exhibit 4.9-2 Site Plan and Noise Measurement Sites

Existing Traffic Noise Environment

Table 4.9-4 shows the existing traffic noise levels in terms of L_{dn} at a reference distance of 50 feet from the centerlines of existing project area roadways. Table 4.9-4 also includes the distances to existing traffic noise level contours. Detailed analysis inputs and modeling information are presented in Appendix J.

Table 4.9-4: Existing Traffic Noise Levels and Contour Distances

Roadway	Section	L_{dn} (dB) at 50 feet	Distance to Noise Contour (feet)		
			70 dB L_{dn}	65 dB L_{dn}	60 dB L_{dn}
Missouri Flat Road	North of Plaza Drive	66	28	60	129
	Plaza Drive to WB US-50 Ramps	70	49	106	228
	WB US-50 Ramps to EB US-50 Ramps	71	58	125	269
	EB US-50 Ramps to Mother Lode Drive	73	74	159	342
	Mother Lode Drive to Forni Road	72	70	150	324
	Forni Road to Golden Center Drive	71	62	134	290
	Golden Center Drive to Diamond Springs Parkway	71	57	123	265
	Diamond Springs Parkway to China Garden Road	69	44	94	203
	China Garden Road to Industrial Drive	70	47	101	217
	Industrial Drive to Enterprise Drive	70	53	114	245
	Enterprise Drive to Pleasant Valley Road (SR-49)	70	50	108	233
SR-49	North of Pacific Street	65	24	52	112
	Pacific Street to Fiske Street	69	41	88	190
	Fiske Street to Skyline Drive	69	41	88	189
	Skyline Drive to Truck Street	69	42	91	196
	Truck Street to Bradley Drive	68	38	82	176
	Bradley Drive to Diamond Springs Parkway	68	39	84	181
	Diamond Springs Parkway to Project Driveway #3	68	39	84	181
	Project Driveway #3 to Black Rice Road	68	39	84	181
	Black Rice Road to Pleasant Valley Road	68	38	82	176
	Pleasant Valley Road to China Garden Road	72	69	148	318
	China Garden Road to Missouri Flat Road	73	74	160	344

Table 4.9-4 (cont.): Existing Traffic Noise Levels and Contour Distances

Roadway	Section	L _{dn} (dB) at 50 feet	Distance to Noise Contour (feet)		
			70 dB L _{dn}	65 dB L _{dn}	60 dB L _{dn}
SR-49 (cont.)	Missouri Flat Road to Patterson Drive	71	62	134	289
	Patterson Drive to Oro Lane/Koki Lane	71	57	122	264
	Oro Lane/Koki Lane to Forni Road	70	51	110	237
	Forni Road to Pleasant Valley Road	70	53	113	244
	South of Pleasant Valley Road	69	44	94	203
Pleasant Valley Road	SR-49 to Racquet Way	67	32	68	147
	Racquet Way to Canyon Valley Road	67	29	63	136
	East of Canyon Valley Road	66	29	62	134
Mother Lode Drive	West of Missouri Flat	62	16	34	73
Forni Road	East of Missouri Flat	61	12	27	58
	West of Missouri Flat	63	18	39	85
	North of Pleasant Valley Road	62	15	32	69
Golden Center Drive	East of Missouri Flat	59	10	21	46
Industrial Drive	West of Missouri Flat	56	6	12	26
Enterprise Drive	West of Missouri Flat	59	9	20	43
Oro Lane	North of SR-49	48	2	4	8
Koki Lane	South of SR-49	62	15	32	68
Patterson Drive	South of SR-49	60	11	23	49
China Garden Road	Missouri Flat Road to SR-49	60	11	24	51
Lime Kiln Road	West of SR-49	55	5	12	25
Black Rice Road	East of SR-49	51	3	5	12
Racquet Way	North of Pleasant Valley Road	54	4	9	19
Throwita Way	North of Diamond Springs Parkway	N/A	N/A	N/A	N/A
	South of Diamond Springs Parkway	N/A	N/A	N/A	N/A
Truck Street	West of SR-49	52	3	7	14
Bradley Drive	West of SR-49	55	5	11	23
Diamond Springs Parkway	Missouri Flat Road to Project Driveway #1	N/A	N/A	N/A	N/A
	Project Driveway #1 to Project Driveway #2	N/A	N/A	N/A	N/A
	Project Driveway #2 to Throwita Way	N/A	N/A	N/A	N/A
	Throwita Way to SR-49	N/A	N/A	N/A	N/A
Source: Bollard Acoustical Consultants Inc. using FHWA RD-77-108 with inputs from the project TIA (KHA, June 24, 2010).					

4.9.4 - Regulatory Framework

Federal

The adverse impact of noise was officially recognized by the federal government in the establishment of the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce.
- Assisting state and local abatement efforts.
- Promoting noise education and research.

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs under the auspices of other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration (OSHA) agency prohibits exposure of workers to excessive sound levels. The Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration (FAA) regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA). Transit noise is regulated by the Federal Transit Administration, while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Furthermore, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that “noise sensitive” uses are either prohibited from being sited adjacent to a highway or, alternately, that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation sources, the County of El Dorado is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

State

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools for local agencies to implement in the control and abatement of noise. One significant model is the “Land Use Compatibility for Community Noise Environments Matrix,” which allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise.

Article 4 of the California Administrative Code (California Noise Insulation Standards, Title 25, Chapter 1) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60-dBA CNEL (or greater) noise contour, an

acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold.

In addition, Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as a component of their comprehensive general plans. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

Caltrans Vibration Guidance

Construction vibration is regulated in accordance with standards established by the Transportation and Construction-Induced Vibration Guidance Manual, issued by the California Department of Transportation (Caltrans). Table 4.9-5 presents these standards. Transient sources create a single, isolated vibration event, such as blasting or drop-ball impacts. Continuous/frequent intermittent sources include multiple impacts from pile drivers, the use of vibratory compaction equipment, and other construction equipment that creates vibration other than in single events.

Table 4.9-5: Groundborne Vibration Exposure Standards

Structure and Condition	Maximum Peak Particle Velocity (PPV) (inches/second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic building, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and older residential structures with plaster walls and ceilings	0.50	0.25
New residential structures with gypsum board walls and ceilings	1.00	0.50
Modern commercial and industrial buildings	2.00	0.50
Source: California Department of Transportation, 2004.		

Local

El Dorado County General Plan

The El Dorado County General Plan was adopted in July 2004 and serves as the overall guiding policy document for land use, development, and environmental quality for the County. The Public Health, Safety, and Noise Element of the General Plan (amended March 2009) contains noise standards for transportation, non-transportation (stationary), and construction noise sources. As part of the Proposed Project, a proposed General Plan Amendment and rezone would designate the site for commercial uses. As such, the Project, if approved, would be required to comply with the General Plan policies pertaining to the new Commercial designation listed in Table 4.9-6.

Table 4.9-6: Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
Policy 6.5.1.2: Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 6-2 at existing or planned noise-sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.	Consistent: As a part of this Draft EIR, an Environmental Noise Assessment which includes recommended noise mitigation has been completed for the Proposed Project (refer to Appendix J). Recommended mitigation will be incorporated into the Proposed Project.
Policy 6.5.1.3: Where noise mitigation measures are required to achieve the standards of Tables 6-1 and 6-2, the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project and the noise barriers are not incompatible with the surroundings.	Consistent: Noise impacts requiring mitigation to achieve applicable standards include the construction of a noise barrier to reduce sound levels at a single residence, as discussed under Impact NOI-1. Mitigation regarding site design changes to reduce noise levels at the single residence would require the relocating the MRF access, and the Major 1 building and or its loading dock, resulting in significant changes to the Project as proposed. It is not guaranteed that such design considerations would be feasible or effective in reducing noise levels of the Proposed Project to an acceptable level. Accordingly, Mitigation Measure NOI-1 requiring the implementation of a noise barrier along the single residence's property line has been included in this Draft EIR.
Policy 6.5.1.7: Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table 6-2 for noise-sensitive uses.	Consistent: Mitigation proposed in this Draft EIR ensures stationary noise created by the Proposed Project would not exceed noise level standards as presented in the General Plan's Table 6-2 (included here as Table 4.9-7).
Policy 6.5.1.9: Noise created by new transportation noise sources, excluding airport expansion but including roadway improvement projects, shall be mitigated so as not to exceed the levels specified in Table 6-1 at existing noise-sensitive land uses.	Consistent: Mitigation proposed in this Draft EIR ensures stationary noise created by the Proposed Project would not exceed noise level standards as presented in the General Plan's Table 6-1 (included here as Table 4.9-7).
<p>Policy 6.5.1.12: When determining the significance of impacts and appropriate mitigation for new development projects, the following criteria shall be taken into consideration.</p> <p>A. Where existing or projected future traffic noise levels are less than 60 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 5 dBA L_{dn} caused by a new transportation noise source will be considered significant;</p> <p>B. Where existing or projected future traffic noise levels range between 60 and 65 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 3 dBA L_{dn} caused by a new transportation noise source will be considered significant; and</p>	Consistent: The standards included in this policy have been used to determine impacts resulting from offsite traffic noise on nearby residences. Mitigation included in this Draft EIR would ensure noise levels are reduced to less than significant levels.

Table 4.9-6 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
C. Where existing or projected future traffic noise levels are greater than 65 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 1.5 dBA L_{dn} .	
<p>Policy 6.5.1.13: When determining the significance of impacts and appropriate mitigation to reduce those impacts for new development projects, including ministerial development, the following criteria shall be taken into consideration:</p> <p>A. In areas in which ambient noise levels are in accordance with the standards in Table 6-2, increases in ambient noise levels caused by new nontransportation noise sources that exceed 5 dBA shall be considered significant; and</p> <p>B. In areas in which ambient noise levels are not in accordance with the standards in Table 6-2, increases in ambient noise levels caused by new nontransportation noise sources that exceed 3 dBA shall be considered significant.</p>	<p>Consistent: The standards included in this policy have been used to determine impacts resulting from onsite operational (non-transportation) noise on nearby residences. Mitigation included in this Draft EIR would ensure noise levels are reduced to less than significant levels.</p>
Source: El Dorado County General Plan, 2004; MBA, 2010.	

The transportation noise standards included in Table 6-1 of the El Dorado County General Plan, and shown here in Table 4.9-7, apply to offsite traffic on public roadways. The non-transportation noise criteria included in Table 6-2 of the General Plan, and shown here in Table 4.9-8, apply to all onsite noise sources such as loading dock activities. The construction criteria included in Table 6-3 of the General Plan, and shown here in Table 4.9-9, apply to the construction phase(s) of the Project.

Table 4.9-7: Maximum Allowable Noise Exposure for Transportation Noise Residential Receivers

Center of Outdoor Activity Areas, dB L_{dn}	Interior Spaces, dB L_{dn}
60 (65)	45
<p>Notes:</p> <p>Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied at the property line of the noise-sensitive uses. For residential uses with front yards facing the noise source, a standard of 65 dB L_{dn} will be applied at the building façade.</p> <p>Source: Table 6-1 of the El Dorado County General Plan (Public Health, Safety, and Noise Element).</p>	

**Table 4.9-8: Non-Transportation Noise Level Performance Protection Standards
Community Residential Receivers**

Noise Level Descriptor	Daytime (7 a.m.-10 p.m.)	Evening (7 p.m.-10 p.m.)	Nighttime (10 p.m.-7 a.m.)
Hourly L_{eq} , dB	55	50	45
Maximum Level, dB L_{max}	70	60	55
Notes: As determined at the residential property line. Each of the levels shall be reduced by 5 dB for simple-tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. Source: Table 6-2 of the El Dorado County General Plan (Public Health, Safety, and Noise Element).			

**Table 4.9-9: Maximum Allowable Construction Noise Exposure
Community Residential Receivers**

Time Period	Hourly L_{eq} , dB	Maximum Level, dB L_{max}
7 am to 7 pm	55	75
Notes: As determined at the residential property line. Each of the levels shall be reduced by 5 dB for simple-tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. Source: Table 6-3 of the El Dorado County General Plan (Public Health, Safety, and Noise Element).		

El Dorado County Ordinance Code

Chapter 9.16, Noise, of the El Dorado County Ordinance Code defined and prohibits “loud and raucous noise.” Under this chapter, the production of loud and raucous noise that unreasonably interferes with the peace and quiet of private property is prohibited.

4.9.5 - Methodology

Bollard Acoustical Consulting (BAC), Inc. completed an Environmental Noise Assessment, dated August 10, 2010, which evaluates the Proposed Project’s potential noise impacts, including ambient noise level surveys, reference noise measurements for project components, and modeling of offsite traffic noise.

Ambient Noise Level Surveys

The existing ambient noise environment in the immediate project vicinity is defined primarily by noise from Diamond Road (SR-49) and the industrial uses in the area, including the Material Recovery Facility (MRF). To quantify existing ambient noise levels in the project vicinity, two continuous (24-hour) ambient noise level surveys were conducted on Thursday, February 7, 2008 and Friday, February 8, 2008 at 4150 Lime Kiln Road (Site 1) and 4000 SR-49 (Site 2). As shown on Exhibit 4.9-2, noise measurements were collected at Site 1 within the backyard patio and at Site 2 within the front yard landscaping, approximately 40 feet from the centerline of SR-49. The noise measurement sites were selected to represent the potentially affected residential land uses adjacent to the project site.

Larson-Davis Laboratories (LDL) Model 820 precision integrating sound level meters equipped with LDL Model 2560 ½-inch microphones were used for the ambient noise level measurement surveys. The meters were calibrated before use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 (precision) sound level meters (ANSI S1.4).

Reference Noise Measurements

The major noise-producing components of the Project include offsite traffic increases due to the Project (including MRF access relocation), onsite truck circulation, loading dock activities (e.g., air-brakes, trucks backing into dock bays with back-up beepers, trailer coupling and decoupling), rooftop mechanical equipment, and parking lot sweeping activities. The locations of the primary truck turnaround area and loading dock for Major 1 are identified in Exhibit 4.9-2. The reference noise levels associated with each of the identified noise sources are described separately below.

Reference Heavy Truck Pass-by Noise Levels & Frequency Content

To quantify the noise generation of slow-moving, tractor-trailer truck pass-bys (and turnarounds), such as those which will occur on the south side of the project site near the closest residences, BAC conducted single-event pass-by noise tests at the West El Camino truck stop in Sacramento, California on June 25, 2008 (mid-afternoon) and on August 12, 2008 (morning). The June measurements focused on heavy truck pass-bys without refrigeration units on their trailers, whereas the August measurements focused on trucks, which had refrigeration units operating on their trailers. Both sets of measurements were conducted at a reference distance of 50 feet perpendicular to the pass-by route, at a location suitable for isolation of individual pass-by events (relatively low background noise exposure). The truck stop measurement site in Sacramento was an ideal location for the collection of this single-event data. LDL Model 820 and 2900 sound level meters were used to quantify overall noise levels and frequency content for each truck pass-by event, respectively.

Heavy truck pass-by events resulted in noise exposure of 69 to 77 dB L_{max} with a mean of 74 dB L_{max} . Truck pass-by levels measured in terms of Single Event Level/Sound Exposure Level (SEL) ranged from 77 to 85 dB with a mean of 84 dB SEL at a perpendicular distance of 50 feet. This data does not include noise from air brakes, back-up alarms (beepers), or truck docking noise. These sources are included within the reference noise level data for loading docks (see below), and would not be expected for normal truck movements on the project site.

To convert the SEL for an individual truck pass-by into an hourly average noise level (L_{eq}), the number of hourly truck pass-bys must be known. Based on information provided by the applicant and operations data used for similar projects, daily truck activity at the proposed Major 1 store would consist of as many as 10 tractor-trailer truck deliveries per day. Based on this level of daily activity and the assumed limit of the loading docks for the Major 1 store, it was conservatively assumed that a busy hour would include the arrival and departure of two semi-trailer trucks (four truck trips).

Using the average SEL data per heavy truck pass-bys with the operational assumptions cited above, the average hourly noise level associated with onsite heavy truck circulation during a typical busy hour was calculated to be 51 dB L_{eq} at a reference distance of 50 feet from the truck lane.

Reference Medium Duty (Vendor) Truck Pass-by Noise Levels

Medium duty truck pass-bys typically generate SEL and L_{max} values of approximately 5 dB lower than heavy truck noise levels. Specifically, SEL and L_{max} noise levels for medium duty trucks were assumed to be 79 dB and 69 dB, respectively, at a reference distance of 50 feet.

As noted above, to convert the SEL for an individual truck pass-by into an hourly average noise level (L_{eq}), the number of hourly truck pass-bys must be known. Based on information for similar projects, as many as 12 daily medium truck deliveries may service the Major 1 store. Based on this level of service, it was conservatively assumed that a busy hour would consist of the arrival and departure of three medium duty trucks (six trips) during a given hour.

Using the SEL data per heavy and medium truck pass-bys with the operational assumptions cited above, the reference average noise level associated with onsite, medium-duty truck circulation during a typical busy hour on the south side of the Project was computed to be 51 dB L_{eq} at a reference distance of 50 feet.

Reference Loading Docks Noise Levels

The primary noise sources associated with the loading dock area of the Project, which is located on the south side of the proposed Major 1 store (refer to Exhibit 4.9-2) would be the heavy trucks stopping (air brakes), backing into the loading docks (back-up alarms), trailer coupling and decoupling, pulling out of the loading docks (engines accelerating) and refrigeration unit operation (alone or with truck idling).

Trailer unloading would occur directly from the inside of the trailer while docked in the recessed bay, and sealed rubber gaskets would be provided at the truck docks to reduce noise from those inside loading and unloading activities. Medium-duty truck unloading would be accomplished at all store sites with dollies or hand-carts.

To determine typical loading dock noise levels associated with the Proposed Project, noise level measurement data collected for a similar loading dock were used. Specifically, noise level data was collected at the Citrus Heights Super Walmart during continuous noise level measurement surveys spanning August 15, 2008 to August 18, 2008. These noise level measurements were conducted at a distance of 100 feet from the effective noise center of the truck unloading area, although pass-bys of trucks to and from the unloading area were within 50 feet of the noise measurement site.

During the loading dock noise level surveys, typical daytime and nighttime loading dock activities were monitored, including truck arrivals and departures, trucks backing into the docks (with beepers), trailer uncoupling, refrigerated trailer units, etc. The results of the loading dock-noise-level

measurements indicate that typical busy daytime hour activities generated a maximum level of approximately 75 dB L_{\max} and an average noise level of 55 dB L_{eq} at a reference distance of 100 feet (center of dock activity). A typical busy nighttime hour of loading dock activities yielded average noise levels 5 dB lower than those measured during daytime hours, or approximately 50 dB L_{eq} at 100 feet for nighttime activity. Maximum noise levels measured during nighttime hours were similar to those measured during daytime hours, as expected.

Reference Mechanical Equipment Noise Levels

The heating, ventilation, and air conditioning (HVAC) systems for maintaining comfortable shopping temperatures within the Major 1 store would consist of packaged rooftop air conditioning systems. It is expected that the HVAC units would be relatively evenly distributed across the roof of the building, typically starting about 30 feet from the edges. These HVAC units, which typically stand about 4 to 5 feet tall, would be shielded from view of nearby sensitive uses by the building's parapet. Such rooftop HVAC units were measured at a reference distance of 100 feet from the building façade of the Red Bluff Walmart store to be approximately 45 dB L_{eq} , including shielding by the building parapet. At the Citrus Height Walmart, where the loading reference noise level data was collected, rooftop HVAC equipment was not audible or distinguishable over daytime background noise exposure.

Reference Parking Lot Sweeper Noise Levels

The proposed parking lot areas would require the use of a sweeper truck for routine cleaning. As a means of determining the noise levels associated with sweeper truck activities, Bollard Acoustical Consultants conducted field measurements of a sweeper truck during normal operation at a Home Depot Store on Howe Avenue in Sacramento, California. Sweeper truck noise levels were measured to be up to 75 dB L_{\max} at a reference distance of 50 feet. This noise exposure confirmed the noise level measurements documented for the City of Redding Walmart Expansion Project in 2005. Noise exposure from their April 26, 2005 reference noise level measurement session was 76 dB L_{\max} and approximately 72 dB L_{eq} at a distance of 50 feet from the sweeper route. In this case, the hourly average noise level (L_{eq}) associated with parking lot sweeping operations is difficult to predict, since it depends on the location of the sweeper truck throughout the hour, which tends to be highly variable. Since the parking lot/pavement area of the project site near the closest residence to the south would be relatively small, and would require little time to clean, it is expected that the L_{\max} criteria would be most applicable to this noise source.

Reference Construction Noise Levels

During the construction of the Proposed Project, noise from construction-related activities would add to the noise environment in the immediate project vicinity. Activities involved in construction would generate maximum noise levels, as indicated in Table 4.9-10, ranging from 77 to 85 dB at a distance of 50 feet.

Table 4.9-10: Construction Equipment Noise Levels at 50 Feet

Type of Equipment	L_{max} , dB	Hourly L_{eq} , dB/% Use
Backhoe	78	74/40%
Concrete Mixer Truck	79	75/40%
Dump Truck	77	73/40%
Front End Loader	79	75/40%
Pneumatic Tools	85	82/50%
Air Compressor	78	74/40%
Source: Federal Highway Administration's Construction Noise Model, V1.1, December 8, 2008.		

Traffic Noise Modeling

To describe existing noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The Model is based on the Calvenio reference noise factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The Model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. The hourly traffic volume input to the Model can be adjusted to reflect the weighted day/night distribution of traffic in order to estimate L_{dn} noise exposure. A day/night traffic distribution of 83 percent/17 percent was assumed for the computation of traffic noise levels in terms of L_{dn} .

No traffic noise modeling calibration measurements were completed for this portion of the project analysis, since there are no significant characteristics of the project area roadways and receiver lands that would be expected to affect the accuracy of traffic noise modeling. The following project traffic noise modeling does not account for shielding from existing noise barriers or other structures, and is specific to a source to receiver distance of 50 feet.

Traffic volumes for existing conditions were obtained from the July 2010 Traffic Impact Analysis (TIA) prepared for the Project by Kimley-Horn and Associates, Inc. (KHA). Truck usage on the area roadways was estimated from field observations and assumptions based on roadway type. The data within the TIS is in the form of AM/PM peak-hour intersection turning movements, which was converted to (ADT) by Bollard Acoustical Consultants, Inc., assuming ADT equals 5·(AM peak hour divided by PM peak hour).

4.9.6 - Noise Impact Assessment

Distances from the major onsite project noise sources to the nearest potentially affected noise-sensitive uses (residences) were scaled using both project site plans and aerial photographs. Those distances, were used to project the previously discussed reference noise level data for each source to the locations of the sensitive receivers to the south and southeast of the project site. The previously

discussed reference noise levels were projected to the noise-sensitive areas of the nearest residences to the project site using the appropriate decay rates cited above. Those levels were then compared to the project standards of significance as outlined previously under the El Dorado County General Plan regulatory discussion and below under Standards of Significance. Where project-generated noise levels were found to exceed those standards, or where noise levels with the Project would substantially exceed noise levels without the Project, a finding of significant noise impact was made. Noise mitigation options were developed for each identified significant noise impact associated with the Diamond Dorado Retail Center (DDRC) Project.

4.9.7 - Standards of Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, noise impacts resulting from the implementation of the proposed project would be considered significant if the project would cause:

- a.) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b.) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
- c.) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
- d.) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
- 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 expose people residing or working in the project area to excessive noise levels? (Refer to Section 6.5, Effects Found Not To Be Significant.)
- f.) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? (Refer to Section 6.5, Effects Found Not To Be Significant.)

Standards of Significance

Criteria for Assessing Significance of Offsite Traffic Noise Level Increases

Based on studies of test subjects' reactions to changes in environmental noise levels for similar noise sources, the Federal Interagency Commission on Noise (FICON) developed the following recommendations for thresholds to be used in assessing the significance of project-related noise level increases for transportation noise sources. These criteria are repeated as Policy 6.5.1.12 in the El Dorado County General Plan.

- Where background noise levels without the Project would be less than 60 dB L_{dn} , a 5 dB or greater noise level increase due to the Project would be considered significant.
- Where background noise levels without the Project would be in the range of 60-65 dB L_{dn} , a 3 dB or greater noise level increase due to the Project would be considered significant.
- Where background noise levels without the Project would exceed 65 dB L_{dn} , a 1.5 dB or greater noise level increase due to the Project would be considered significant.

This graduated scale is based on findings that people in quieter noise environments would tolerate larger increases in noise levels without adverse effects, whereas people already exposed to elevated noise levels exhibited adverse reactions to noise for smaller increases.

Because the project area noise environment is already defined by noise from existing traffic, any additional increase in traffic noise levels that results from the Project would not affect the tonal character of that existing noise environment. As a result, the use of more restrictive noise level thresholds to account for changes in the tonal character of the ambient noise environment are not warranted for this Project.

Criteria for Assessing Significance of Noise Generated by Onsite Activities

As presented in El Dorado County's General Plan Policy 6.5.1.13, project-related noise exposure increases of 5 dB or more above the ambient, where the ambient is below the thresholds presented in Table 4.9-8 (Table 6-2 of the General Plan), are considered significant. Project-related noise exposure increases of 3 dB or more above the ambient, where the ambient exceeds the thresholds presented in Table 4.9-8 are considered significant. The standards presented in Table 4.9-8 represent established limits as well as thresholds of significance, for determination of significant project-related increase relative to the measured ambient noise level.

Criteria for Assessing Significance of Groundborne Vibration

Groundborne vibration impact thresholds were based on the Transportation Noise and Vibration Impact Analysis, prepared by the Federal Transit Administration, May 2004. The report recommends a threshold of 0.01 inch per second or 80 VdB (dB re: 1 microinch per second) as the significance level for infrequent events, which is defined as less than 30 events (e.g., truck deliveries) per day.

4.9.8 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Proposed Project and provides mitigation measures where appropriate. Included are construction (short-term) and operational (long-term) impacts of onsite improvements, as well as construction impacts of offsite improvements.

Noise Levels in Excess of Standards

Impact NOI-1:	The Project has the potential to result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
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Impact Analysis

This impact evaluates the Proposed Project's potential to result in noise levels in excess of established noise standards. This analysis considers individual impacts associated with onsite operational, offsite operational and sensitive receptor noise impacts.

Onsite Improvements**Onsite Operational Noise*****Onsite Truck Circulation***

As described in Section 3, Project Description, trucks delivering to the Major 1 building would enter the project site from the separately proposed and approved Parkway via the main entrance opposite Throwita Way, utilize the truck turn area to access the loading docks, and then return to the Parkway via the same route. Trucks delivering to the Major 2, Building P1, P2, P3, and P4 would enter the site at the westernmost access point from the separately proposed Parkway and continue south along the site's western boundary to access the loading areas. Trucks would then exit the DDRC site via the main entrance.

The nearest existing residential property line (Assessor's Parcel Number [APN] 054-341-04) to the onsite truck turn-around area is located approximately 140 feet to the south. The future Major 1 building pad is expected to be approximately 10 feet below the pad elevation of the residence.

Noise generated by Combined Heavy and Medium Trucks (such as those that would be utilizing the future Major 1 loading dock) have been recorded at a volume of 47 dB L_{eq} and 65 dB L_{max} at 50 feet. The truck pass-by data was extrapolated to the distance of the nearest residence (140 feet) and is presented in Table 4.9-11. Data presented in Table 4.9-11 are based on two heavy truck arrivals and departures, and three medium truck arrivals and departures in any given hour, and do not account for any shielding of onsite truck circulation which may result from future noise barriers. However, the L_{max} and SEL values shown in Table 4.9-11 are not considered additive as the likelihood that the noise generation of one truck pass-by would coincide exactly with the noise generation of another is very minute. As a result, the reported levels for the combined L_{max} and SEL of medium and heavy trucks are the noise levels generated by a single heavy truck operation.

**Table 4.9-11: Predicted Noise Levels at Residence Near Proposed Loading Dock
(APN 054-341-04)**

Noise Sources and Criteria	L _{eq} , dB	L _{max} , dB	SEL, dB
Heavy Trucks	44	65	75
Medium Trucks	44	60	70
Combined Heavy and Medium Trucks	47	65	75
Average Measured Ambient (Day/Evening/Night)	54/48/58	73/61/66	N/A
Project Standard of Significance (Day/Evening/Night)	59/53/61	76/64/69	90
Ambient + Project (Day/Evening/Night)	55/51/58	73/ 65 /66	N/A
<p>Notes: An exterior SEL of 90 dB would be reduced to the 65 dB SEL objective within residences through normal building façade noise level reduction with windows and exterior doors closed (25 dB exterior-to-interior noise level reduction assumed). Bold level represents significant noise impact. Source: Bollard Acoustical Consultants, Inc., 2010.</p>			

As shown above in Table 4.9-11, the predicted noise levels associated with a typical busy hour of onsite truck circulation would be below the applicable noise exposure limits with the exception of the evening L_{max}, which exceeds the criterion by 1 dB during the evening hours. Accordingly, implementation of the Proposed Project would result in a potentially significant impact related to evening onsite truck circulation noise at the Major 1 loading area. Mitigation is proposed that would require the construction of a permanent noise barrier that would provide approximately 8 to 9 dB of noise reduction, thereby reducing delivery truck related noise below the acceptable noise exposure limit at the nearby residence. Accordingly, impacts would be reduced to less than significant.

Loading Dock

As shown on Exhibit 3-5, the proposed loading dock area for the Major 1 building would be located approximately 240 feet from the closest residence (APN 054-341-04). The primary noise sources associated with loading docks are the heavy trucks' air brakes, back-up alarms, engine acceleration during movement, and short-term refrigeration unit operation. Heavy truck unloading and loading activities would occur directly from the truck to the building, and sealed rubber gaskets would be provided at the truck docks to reduce noise from such activities. Medium-truck unloading may be conducted using hand-carts, which would also contribute to unloading noise levels, and those operations are included in the reference noise levels.

Noise generated by loading dock activities have been recorded at a volume of 75 dB L_{max} and 55 dB L_{eq} at 100 feet. This noise level was extrapolated to the distance of the nearest residence (240 feet) and is present in Table 4.9-12. Data presented in Table 4.9-12 are based on a typical busy hour of loading dock activity, and do not account for any shielding of loading dock activities, which may result from future noise barriers. Noise generated by the unloading of medium duty trucks using handcarts is not included in Table 4.9-12.

**Table 4.9-12: Predicted Noise Levels at Residence (APN 054-341-04)
Near Proposed Loading Dock**

Noise Sources and Criteria	L _{eq} , dB	L _{max} , dB
Loading Dock Sources (Day/Evening/Night)	47/47/42	67
Average Measured Ambient (Day/Evening/Night)	54/48/58	73/61/66
Project Standard of Significance (Day/Evening/Night)	59/53/61	76/64/69
Ambient + Project (Day/Evening/Night)	55/51/58	73/67/67
Note: Bold represents noise impact. Source: Bollard Acoustical Consultants, Inc., 2010.		

As shown in Table 4.9-12, the predicted noise levels associated with a typical busy hour of loading dock activity at the Major 1 building could exceed the applicable evening L_{max} criterion by 3 dB during the evening hours. Accordingly, implementation of the Proposed Project would result in a potentially significant impact related to evening loading dock noise at the Major 1 building. Implementation of Mitigation Measure NOI-1 would reduce impacts to less than significant.

Rooftop Mechanical Equipment

The Proposed Project would include the use of rooftop mechanical equipment such as HVAC systems. Rooftop HVAC systems tend to generate noise of approximately 45 dB L_{eq} at 100 feet from the project building façades, accounting for shielding provided by the building's parapet. This noise level data was extrapolated to the distance of the nearest residence (190 feet between the edge of project building to residential property line) and is presented in Table 4.9-13. Noise levels in presented in Table 4.9-13 assume continuous steady-state operation of the HVAC equipment for an entire hour.

Table 4.9-13: Predicted Noise Levels at Residence (APN 054-341-04) resulting from Rooftop Mechanical Equipment at Major 1 Building

Noise Sources and Criteria	L _{eq} , dB	L _{max} , dB
Rooftop HVAC Equipment	39	39
Average Measured Ambient (Day/Evening/Night)	54/48/58	73/61/66
Project Standard of Significance (Day/Evening/Night)	59/53/61	76/64/69
Ambient + Project (Day/Evening/Night)	54/49/58	73/61/66
Source: Bollard Acoustical Consultants, Inc., 2010.		

As shown in Table 4.9-13, the Proposed Project's rooftop mechanical equipment is not expected to exceed applicable noise exposure limits. Accordingly, impacts would be less than significant and no mitigation would be required.

Offsite Operational Noise

Traffic Circulation Noise

Project-related traffic noise levels were predicted in terms of the Day/Night Average Level (L_{dn}) at a representative distance (50 feet from roadway centerlines) for the Near-Term (2015) and Long-Term (2025) project and no-project conditions using the Federal Highway Administration (FHWA) Model. These predictions used the same modeling methodology used for the existing scenario described earlier in this report with one major change. Each assessment was completed in two parts: (1) traffic without the MRF trucks, and (2) the MRF trucks alone. The two parts were then added together to determine total noise exposure.

Results of these analyses are summarized in Table 4.9-14 and Table 4.9-15 for the Near-Term (2015) and Long-Term (2025) conditions, respectively. Detailed inputs for the analyses are included in Appendix J.

**Table 4.9-14: Predicted Near-Term Traffic Noise Levels
at 50 feet from Roadway Centerlines**

Roadway	Section	L_{dn} , dB		
		NT (2015)	NT (2015) +Project	Change
Missouri Flat Road	North of Plaza Drive	68	68	0
	Plaza Drive to WB US-50 Ramps	71	71	0
	WB US-50 Ramps to EB US-50 Ramps	72	72	0
	EB US-50 Ramps to Mother Lode Drive	72	73	0
	Mother Lode Drive to Forni Road	73	74	0
	Forni Road to Golden Center Drive	72	73	+1
	Golden Center Drive to Diamond Springs Parkway	73	73	0
	Diamond Springs Parkway to China Garden Road	69	69	0
	China Garden Road to Industrial Drive	69	70	0
	Industrial Drive to Enterprise Drive	70	71	+1
	Enterprise Drive to Pleasant Valley Road (SR-49)	70	71	+1
SR-49	North of Pacific Street	66	66	0
	Pacific Street to Fiske Street	69	69	0
	Fiske Street to Skyline Drive	69	69	0
	Skyline Drive to Truck Street	70	70	0
	Truck Street to Bradley Drive	70	70	0

**Table 4.9-14: (cont.): Predicted Near-Term Traffic Noise Levels
at 50 feet from Roadway Centerlines**

Roadway	Section	L _{dn} , dB		
		NT (2015)	NT (2015) +Project	Change
SR-49 (cont.)	Bradley Drive to Diamond Springs Parkway	70	70	0
	Diamond Springs Parkway to Project Driveway #3	70	71	+1
	Project Driveway #3 to Black Rice Road	72	73	+1
	Black Rice Road to Pleasant Valley Road	72	73	+1
	Pleasant Valley Road to China Garden Road	70	71	+1
	China Garden Road to Missouri Flat Road	70	71	+1
	Missouri Flat Road to Patterson Drive	71	71	0
	Patterson Drive to Oro Lane/Koki Lane	71	71	0
	Oro Lane/Koki Lane to Forni Road	70	71	0
	Forni Road to Pleasant Valley Road	71	71	0
	South of Pleasant Valley Road	70	70	0
Pleasant Valley Road	SR-49 to Racquet Way	68	68	0
	Racquet Way to Canyon Valley Road	67	66	-1
	East of Canyon Valley Road	67	66	-1
Mother Lode Drive	West of Missouri Flat	63	63	0
Forni Road	East of Missouri Flat	62	62	0
	West of Missouri Flat	64	64	0
	North of Pleasant Valley Road	63	63	0
Golden Center Drive	East of Missouri Flat	60	60	0
Industrial Drive	West of Missouri Flat	56	56	0
Enterprise Drive	West of Missouri Flat	59	59	0
Oro Lane	North of SR-49	48	50	+1
Koki Lane	South of SR-49	62	62	0
Patterson Drive	South of SR-49	60	60	0
China Garden Road	Missouri Flat Road to SR-49	60	60	0
Lime Kiln Road	West of SR-49	55	67	+12
Black Rice Road	East of SR-49	54	54	0
Racquet Way	North of Pleasant Valley Road	54	54	0

Table 4.9-14: (cont.): Predicted Near-Term Traffic Noise Levels at 50 feet from Roadway Centerlines

Roadway	Section	L _{dn} , dB		
		NT (2015)	NT (2015) +Project	Change
Throwita Way	North of Diamond Springs Parkway	54	55	0
	South of Diamond Springs Parkway	67	61	-6
Truck Street	West of SR-49	50	50	0
Bradley Drive	West of SR-49	44	44	0
Diamond Springs Parkway	Missouri Flat Road to Project Driveway #1	70	70	0
	Project Driveway #1 to Project Driveway #2	70	71	+1
	Project Driveway #2 to Throwita Way	70	71	+1
	Throwita Way to SR-49	68	69	+1
<p>Note: Bold level represents potential noise impact. Source: Bollard Acoustical Consultants Inc., 2010, using FHWA RD-77-108 with inputs from the KHA, 2010, project TIA.</p>				

Table 4.9-15: Predicted Long-Term Traffic Noise Levels at 50 feet from Roadway Centerlines

Roadway	Section	L _{dn} , dB		
		LT (2025)	LT (2025) +Project	Change
Missouri Flat Road	North of Plaza Drive	69	69	0
	Plaza Drive to WB US-50 Ramps	72	72	0
	WB US-50 Ramps to EB US-50 Ramps	73	74	0
	EB US-50 Ramps to Mother Lode Drive	73	74	0
	Mother Lode Drive to Forni Road	74	74	0
	Forni Road to Golden Center Drive	74	74	0
	Golden Center Drive to Diamond Springs Parkway	74	74	0
	Diamond Springs Parkway to China Garden Road	70	70	0
	China Garden Road to Industrial Drive	71	71	0
	Industrial Drive to Enterprise Drive	71	72	+1
	Enterprise Drive to Pleasant Valley Road (SR-49)	71	72	+1

Table 4.9-15 (cont.): Predicted Long-Term Traffic Noise Levels at 50 feet from Roadway Centerlines

Roadway	Section	L _{dn} , dB		
		LT (2025)	LT (2025) +Project	Change
SR-49	North of Pacific Street	67	67	0
	Pacific Street to Fiske Street	70	70	0
	Fiske Street to Skyline Drive	70	70	0
	Skyline Drive to Truck Street	71	71	0
	Truck Street to Bradley Drive	71	71	0
	Bradley Drive to Diamond Springs Parkway	71	71	0
	Diamond Springs Parkway to Project Driveway #3	71	71	+1
	Project Driveway #3 to Black Rice Road	73	73	+1
	Black Rice Road to Pleasant Valley Road	73	73	+1
	Pleasant Valley Road to China Garden Road	71	72	+1
	China Garden Road to Missouri Flat Road	71	72	+1
	Missouri Flat Road to Patterson Drive	71	71	0
	Patterson Drive to Oro Lane/Koki Lane	72	72	0
	Oro Lane/Koki Lane to Forni Road	71	71	0
	Forni Road to Pleasant Valley Road	72	72	0
	South of Pleasant Valley Road	70	70	0
Pleasant Valley Road	SR-49 to Racquet Way	69	69	0
	Racquet Way to Canyon Valley Road	68	68	0
	East of Canyon Valley Road	68	68	0
Mother Lode Drive	West of Missouri Flat	65	65	0
Forni Road	East of Missouri Flat	63	63	0
	West of Missouri Flat	66	66	0
	North of Pleasant Valley Road	66	66	0
Golden Center Drive	East of Missouri Flat	61	61	0
Industrial Drive	West of Missouri Flat	57	57	0
Enterprise Drive	West of Missouri Flat	60	60	0
Oro Lane	North of SR-49	49	49	0
Koki Lane	South of SR-49	63	63	0
Patterson Drive	South of SR-49	61	61	0

Table 4.9-15 (cont.): Predicted Long-Term Traffic Noise Levels at 50 feet from Roadway Centerlines

Roadway	Section	L _{dn} , dB		
		LT (2025)	LT (2025) +Project	Change
China Garden Road	Missouri Flat Road to SR-49	61	61	0
Lime Kiln Road	West of SR-49	56	67	+12
Black Rice Road	East of SR-49	55	55	0
Racquet Way	North of Pleasant Valley Road	55	55	0
Throwita Way	North of Diamond Springs Parkway	55	56	0
	South of Diamond Springs Parkway	67	61	-6
Truck Street	West of SR-49	51	51	0
Bradley Drive	West of SR-49	45	45	0
Diamond Springs Parkway	Missouri Flat Road to Project Driveway #1	71	71	0
	Project Driveway #1 to Project Driveway #2	71	71	0
	Project Driveway #2 to Throwita Way	71	71	0
	Throwita Way to SR-49	69	70	+1
Note: Bold level represents potential noise impact. Source: Bollard Acoustical Consultants Inc. using FHWA RD-77-108 with inputs from the KHA, 2010, project TIA.				

As presented in Table 4.9-14, the Proposed Project's offsite traffic would result in near-term (2015) noise level increases on individual roadway segments from 0 to 12 dB over existing local roadway noise levels without the Proposed Project. Similarly, as shown in Table 4.9-15, offsite traffic would result in long-term (2025) noise level increases on individual roadway segments from 1 to 12 dB over existing local roadway noise levels without the Proposed Project. In both the scenarios, resulting traffic noise levels at a reference distance of 50 feet would be approximately 67 dB L_{dn} along Lime Kiln Road between Diamond Road (SR-49) and the MRF access point. This noise exposure exceeds the applicable 60 dB L_{dn} criterion and the applicable +5 dB significance threshold. Accordingly, implementation of the Proposed Project would result in potentially significant impacts related to offsite operational noises. Mitigation Measure NOI-1 would require the construction of a permanent, 8-foot-tall noise barrier along 265 feet of the proposed Material Recovery Facility access road (see Appendix J for location details). Construction of the noise barrier would reduce offsite noise impacts to less than 60 dB L_{dn} and the applicable +5 dB significance threshold. As such, implementation of Mitigation Measure NOI-1 would reduce impacts to less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM NOI-1 Prior to the issuance of grading permits for the construction of the new Material Recovery Facility access route, the Project applicant shall retain a qualified noise consultant to design an appropriate noise barrier to be constructed along the northern property line of Assessor's Parcel Number (APN) 054-341-04 that is shared with Project applicant's adjoining property (APNs 051-250-12 and 051-250-46). The noise barrier shall be constructed within APNs 051-250-12 and 051-250-46, on the southwestern side of the proposed Material Recovery Facility access road along the top of the road cut. The wall shall not exceed 8 feet in height and be approximately 265 feet in length as recommended by the supplemental analysis performed in conjunction with the Environmental Noise Assessment for the Diamond Dorado Retail Center Project. The final design of the noise barrier shall be based on industry-accepted standards and practices proven to effectively attenuate roadway noise and as applicable to existing conditions at the residence. The design shall be submitted to El Dorado County Planning Services for review and shall be incorporated into the Proposed Project. Within the first month of project operation, noise monitoring shall be conducted by a qualified noise consultant to determine if the noise barrier is providing appropriate noise attenuation. If the appropriate level of noise attenuation is not being provided by the noise barrier, it shall be revised and/or augmented to achieve the required noise attenuation as recommended by the qualified noise consultant.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

As discussed in the introduction to the Impact NOI-1 analysis, this analysis considers individual impacts associated with onsite operational, offsite operational and sensitive receptor noise impacts. The noise generated by offsite project circulation of operational-generated traffic is addressed above. This impact discussion is limited to the construction activities associated with the offsite improvements. Construction activities for offsite improvements would not result in additional operational noise impacts. Therefore, the construction activities would not have the potential to result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No impact.

Excessive Groundborne Vibrations

Impact NOI-2:	The Project would not result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
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Impact Analysis

This analysis evaluates the Proposed Project's potential to cause a substantial groundborne vibration from onsite construction and operational activities, as well as offsite construction. Implementation of the Proposed Project may result in groundborne vibrations related to construction, delivery trucks, and trucks accessing the MRF. Each is discussed below.

Onsite Improvements

Construction

Construction activities can produce vibrations that may be felt by adjacent uses. The construction of the Proposed Project would not require the use of equipment such as pile drivers, which are known to generate substantial construction vibration levels. The primary sources of vibration during construction would be from bulldozers, backhoes, crawler tractors, and scrapers. As shown in Table 4.9-2, a large bulldozer would be the piece of equipment that would produce the largest amount of vibration on the project site, at 87 VdB or 0.089 PPV at 25 feet. This vibration level exceeds the vibration exposure standards for extremely fragile historic buildings as shown in Table 4.9-5. However, no such buildings are located onsite or within the project vicinity and would not be negatively affected.

The closest vibration sensitive land uses are the nearby residences, with the nearest residential structure located approximately 100 feet from the proposed MRF access realignment and 140 feet from the proposed DDRC project site. Because the MRF access realignment would occur nearest the residential structure, it will be used as a proxy for the DDRC's potential construction vibration impacts. Vibration levels caused by a large bulldozer operating on the edge of the area to be graded and filled during road realignment construction at the nearest structure would be approximately 75 VdB (vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source). This vibration level would not exceed the 80 VdB threshold. Therefore, because the road realignment's construction vibration would not exceed 80 VdB, it can be assumed that the DDRC's construction vibration would also not exceed that threshold. Accordingly, construction-related groundborne vibration impacts would be less than significant.

Operational Vibration

As with construction vibration, the MRF access realignment would be the closest portion of the project site to a nearby receptor (100 feet) and, therefore, will be used as a proxy for evaluating operation vibrations from the Proposed Project. A truck on a road would typically produce a vibration level of 63 VdB at 50 feet (Federal Transit Administration 2006). This would result in a

vibration level of 57 VdB at the nearest home to the MRF access realignment. Therefore, because the MRF access realignment's operation vibration would not exceed 80 VdB, it can be assumed that the DDRC's operational vibration would also not exceed that threshold. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

As discussed under Onsite Improvements, above, construction activities of offsite roadway improvements can produce vibrations that may be felt by adjacent uses. The construction of the offsite roadway improvements would not require the use of equipment such as pile drivers, which are known to generate substantial construction vibration levels. In addition, it is anticipated that the primary sources of vibration during construction would be from bulldozers, backhoes, crawler tractors, and scrapers.

The closest vibration sensitive land uses are the nearby residences, with the nearest residential structure located approximately 30 feet from the planned improvements at Pleasant Valley Road/Forni Road intersection. Because the Pleasant Valley Road/Forni Road intersection improvements would occur nearest the residential structure, it will be used as a proxy for the offsite construction vibration impacts. Construction activities at the Pleasant Valley Road/Forni Road intersection will be primarily surficial in nature, and may include minor amounts of pavement removal. However, it is not anticipated that the improvements would require the use of large bulldozers or other large earthmoving equipment. Jackhammers may be utilized during construction, and would likely produce the largest amount of vibration on the project site, at 79 VdB or 0.035 PPV at 25 feet, as shown in Table 4.9-2. This vibration level would not exceed the vibration exposure standards for extremely fragile historic buildings as shown in Table 4.9-5. In addition, no such buildings are located onsite or within the vicinity of the offsite improvements, and therefore, would not be negatively affected.

Vibration levels caused by a jackhammer operating on the edge of the area to be improved during offsite construction at the nearest structure would be approximately 79 VdB (vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source). This vibration level would not exceed the 80 VdB threshold. Therefore, because the Pleasant Valley Road/Forni Road intersection improvements construction vibration would not exceed 80 VdB, it can be assumed that the offsite improvements construction vibration would also not exceed that threshold. Furthermore, construction hours are limited by General Plan Policy 6.5.1.11 and would ensure a jackhammer is not

used at an inappropriate time of the day thereby ensuring vibration would only occur during acceptable construction hours. Accordingly, construction-related groundborne vibration impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Permanent Increase in Ambient Noise Levels

Impact NOI-3:	The Project has the potential to result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Project.
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Impact Analysis

Onsite Improvements

Long-term impacts would result from both on- and offsite operational noises associated with the Proposed Project. As discussed in Impact NOI-1, project-related traffic noise level changes on Lime Kiln Road between Diamond Road (SR-49) and the proposed MRF access would impact a single residence. Implementation of Mitigation Measure NOI-1 would ensure impacts are reduced to less than significant. The Proposed Project is not expected to result in a significant substantial permanent increase in ambient noise levels at any other location in the study area. In fact, offsite operation noise on roadways would actually decrease in several locations due to the rerouting of MRF access trips.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure NOI-1.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

The offsite improvements construction activities would not result in long-term noise impacts, as construction activity would cease at the end of construction. Therefore, the offsite improvements construction has no potential to generate a substantial permanent increase in ambient noise levels.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No impact.

Temporary or Periodic Increase in Ambient Noise Levels

Impact NOI-4:	The Project has the potential to result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the Project.
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Impact Analysis**Onsite Improvements**

During construction and operation of the Proposed Project, construction noise could cause short-term increase in noise levels at existing residences adjacent to construction areas. Each is discussed below.

Construction Noise

As indicated in the Environmental Noise Assessment, (Bollard Acoustical Consulting 2010) construction of the Proposed Project could result in maximum noise levels as high as 80 dB L_{max} at the nearest residence. Accordingly, noise exposure at this residence is likely to significantly exceed the existing ambient noise exposure (Table 4.9-3) and the criteria presented in Table 4.9-9. Although project construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours, temporary or periodic increases in ambient noise levels would result in potentially significant impacts. Accordingly, mitigation is proposed requiring the construction of a temporary noise barrier along the north property line of the residential parcel at APN 054-341-04 until a permanent barrier can be constructed in accordance with Mitigation Measure NOI-1. Implementation of this mitigation would provide approximately 7 to 8 dB reduction for most construction noise sources, thereby satisfying the applicable construction noise exposure. As such, impacts would be less than significant.

Operational Noise

Re-routed MRF trucks on Lime Kiln Road west of Diamond Road (SR-49) would be expected to produce an SEL of approximately 75 dB at the closest residential building façade (APN 054-341-04). Assuming a minimum building façade noise level reduction of 25 dB with windows and doors closed, exterior single event levels of 75 dB SEL would be reduced to 50 dB SEL within the residence. The estimated 25 dB noise level reduction within the interior of the existing residence is based on testing of similar residential building noise attenuation by Bollard Acoustical Consultants, Inc. staff in recent years. Accordingly, single-event noise levels within the residence during pass-bys of heavy trucks at the new MRF access are predicted to be approximately 50 dB SEL within the nearby residence. Interior SEL values in excess of 65 dB SEL are considered unacceptable (*Berkeley Keep Jets Over the Bay Com. v. Bd of Port Comrs. of Oakland, 2001*); however, the Project would not exceed this

threshold. Furthermore, implementation of Impact NOI-1 would further reduce noise emanating from heavy trucks. As such, impacts would be less than significant.

It is assumed that regular parking lot sweeping would occur at the proposed DDRC. Sweeper trucks generate noise levels of approximately 76 dB_{max} at 50 feet. It is expected that during the Proposed Project's operational phase, parking lot sweeping would periodically occur within 100 feet of the closest residence to the south of the project site. After the application of a 6-dB reduction due to distance of the nearest residence from a paved area of the Proposed Project, it would be expected that noise resulting from parking lot sweeping activities would be approximately 70 dB L_{max} at the residential property line. This noise exposure would be expected to exceed the applicable evening and nighttime noise exposure criteria of 64 dB L_{max} and 69 dB L_{max}, (ambient noise levels of 61 dB L_{max} and 66 dB L_{max} plus 3 dB), respectively. As such, implementation of the Proposed Project would result in increased noise levels due to parking lot sweeping activities and impacts would be potentially significant. Implementation of Mitigation Measure NOI-1 would reduce impacts to a less than significant level.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM NOI-4a Prior to start of construction the Project applicant shall retain a qualified noise consultant to design an appropriate temporary noise barrier to be constructed along the northern property line of APN 054-341-04 that is shared with the Project applicant's adjoining property. The temporary noise barrier shall remain in place until a permanent barrier can be constructed in accordance with Mitigation Measure NOI-1. The design shall be submitted to El Dorado County Planning Services for review and shall be implemented by the Project applicant or its contractors. Within in the first week of the start of project construction, noise monitoring shall be conducted by a qualified noise consultant to determine if the temporary noise barrier is providing appropriate noise attenuation. If the appropriate level of noise attenuation is not being provided by the temporary noise barrier, it shall be revised and/or augmented to achieve the required noise attenuation as recommended by the qualified noise consultant. This temporary barrier shall remain in place until the permanent noise barrier required under Mitigation Measure NOI-1 is constructed.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

As indicated in offsite improvements construction impact analysis contained in Impact NOI-2, construction of the offsite improvements could result the use of jackhammers and small bulldozers, but would not likely utilize heavy equipment or large bulldozers. Assuming that a jackhammer and

small bulldozer would operate at the same time at the Pleasant Valley Road/Forni Road intersection improvements (the improvements nearest to residences), the construction would result in a maximum noise levels as high as 79 dB L_{max} at the nearest residence (FTA 2006). Accordingly, noise exposure at this residence is likely to significantly exceed the existing ambient noise exposure (Table 4.9-3) and the criteria presented in Table 4.9-9. Although project construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours, temporary or periodic increases in ambient noise levels would result in potentially significant impacts. Accordingly, mitigation is proposed requiring the individual review of construction noise impacts and implementation of measures to reduce the impact to less than significant prior to the start of construction activities in accordance with Mitigation Measure NOI-4a. Implementation of this mitigation would provide review of each offsite improvement's construction activity, location of the nearest sensitive receptor, and implementation of measures to reduce the impact to less than the criteria presented in Table 4.9-9. As such, impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM NOI-4b Prior to start of construction the for each roadway improvement section, Project applicant shall retain a qualified noise consultant to review proposed construction activity, the location of the nearest sensitive receptor, and design an appropriate temporary noise barrier for each roadway improvement section that would exceed El Dorado County's maximum allowable construction noise exposure-community residential receivers criteria. The design of each measure shall be submitted to El Dorado County Planning Services for review and shall be implemented by the Project applicant or its contractors. Within in the first week of the start of project construction, noise monitoring shall be conducted by a qualified noise consultant to determine if temporary noise barriers are providing appropriate noise attenuation. If the appropriate level of noise attenuation is not being provided by the temporary noise barriers, they shall be revised and/or augmented to achieve the required noise attenuation as recommended by the qualified noise consultant.

Level of Significance After Mitigation

Less than significant impact.

4.10 - Public Services and Utilities

4.10.1 - Introduction

This section describes the existing setting regarding public services and utilities, and potential effects from project implementation on the provision of those services and utilities. Descriptions and analysis in this section are based primarily on information obtained through consultation with public service providers, including the El Dorado County Sheriff's Office, the Diamond Springs/El Dorado Fire Protection District, the El Dorado Irrigation District, and Pacific Gas & Electric (PG&E). Public service and utility letters are provided in Appendix K. Additional information was obtained from the El Dorado County General Plan.

4.10.2 - Environmental Setting

Fire Protection and Emergency Medical Services

Fire protection services throughout El Dorado County are provided by 13 separate fire districts, one city fire department, the California Department of Forestry and Fire Protection (CDF), and the United States Forest Service (USFS). The Project is located within the Diamond Springs/El Dorado Fire Protection District (Fire District). The Fire District responded to a service provider questionnaire prepared by Michael Brandman Associates (MBA) in a letter dated March 29, 2010 (Combs, pers. comm. [Appendix K]). The Fire District covers 93 square miles, with a nighttime population of 24,000 residents. Within the Fire District exists a diverse combination of businesses, senior citizen housing, mobile home parks, convalescent hospitals, and rural residential and high-density residential areas—all situated within a wildland-urban interface.

Emergency medical services (EMS) are provided by the Fire District through a cooperative agreement with County Service Area No. 7 and a subcontract with the El Dorado County Regional Prehospital Emergency Services Operations Authority (El Dorado County 2007).

ISO Rating

Fire protection districts are assigned an Insurance Service Organization (ISO) Public Protection Classification rating that measures the quality of public fire protection to determine insurance costs. Class 1 represents exemplary public protection, and Class 10 indicates that an area's fire-suppression program does not meet ISO's minimum criteria. According to the 2006 Countywide Fire Suppression and Emergency Services Municipal Service Review, agricultural and rural-residential areas within the Fire District have an ISO rating of Class 8 while industrial or semi-urban commercial areas (such as that of the project area) have an ISO rating of Class 5 (El Dorado County LAFCo 2006).

Staffing

The Fire District currently has five stations staffed by 22 career fire suppression personnel, 26 volunteer safety personnel, and three non-safety personnel. The District maintains and operates the following equipment:

- Five Type 1 Engines
- Two Type 2 Engines
- One Type 2 Truck
- One Type 1 Water Tender
- Two ALS Medic Units (ambulances)
- One Type 2 Rescue Vehicle
- Seven Staff or Command Vehicles

The closest station to the project site is located 0.5 mile to the south at 501 Main Street, Diamond Springs, staffed by two career personnel and housing one fire engine.

Mutual Aid Agreements

The Fire District has mutual aid agreements with the following surrounding agencies for first response in an emergency: El Dorado County Fire Protection District (which also protects the City of Placerville), Rescue Fire Protection District, and Pioneer and Amador Fire Protection District Battalion 20 (formerly Plymouth Fire Department). Additionally, the Fire District has operating agreements with CDF (Amador-El Dorado Unit) and the USFS (El Dorado National Forest) (El Dorado County 2004).

Calls for Service

Fire District personnel responded to 2,472 requests for services in 2008 (Combs, pers. comm. [Appendix K]). Types of calls and percent of total calls are as follows:

- 59.42% – Medical Aid
- 3.11% – Fires and Fire Related, All Types
- 1.39% – Hazardous Conditions
- 1.78% – False Alarms
- 34.30% – Other (Cancelled In Route and Citizen Assistance Calls)

Response Times

According to the El Dorado County General Plan, the minimum level of service for Fire District response on discretionary projects and within a community region is an 8-minute response time to 80 percent of the population. The El Dorado County General Plan sets the minimum level of response time for ambulance services at 10 minutes for 80 percent of the population (El Dorado County 2004).

The Fire District reported a 9.5-minute response time, 80 percent of the time, for its last planning cycle. In addition, the Fire District reported that the response performance, when adequate concentration of personnel and equipment are considered, equates to 9.5 minutes, 80 percent of the time for medical aid incidents; 10.0 minutes for vehicle collisions; and 10.6 minutes for structure fires (Combs, pers. comm. [Appendix K]).

Law Enforcement

The El Dorado County Sheriff's Office (EDSO) provides service to the unincorporated areas of the County with a staff of 414 sworn and non-sworn personnel (El Dorado County Human Resources Department 2008). EDSO operates two main offices and one satellite office. The closest office to the project site is the Placerville Office, located at 300 Fair Lane (Neves, pers. comm., 2008 [Appendix K]).

The EDSO is divided into five divisions: Administrative, Custody, Investigations, Patrol, and Support. Currently the EDSO has 184 sworn deputies, sergeants, and managers. In addition, the EDSO is supplemented by the Sheriff's Reserves, a trained work force supporting the Sheriff's Office in all areas of law enforcement, and the Sheriff's Team of Active Retirees (STAR), which consists of senior volunteers who handle tasks ranging from fingerprinting booths to public awareness programs (Neves, pers. comm., 2008 [Appendix K]).

Staffing

EDSO maintains three shifts per day with an average of 10 officers per shift for Patrol Zone 1, in which the Proposed Project is located (Kollar, pers. comm., 2010 [Appendix K]). Patrol Zone 1 covers Placerville and the surrounding areas as defined by the EDSO.

Mutual Aid Agreements

EDSO is engaged in a mutual aid assistance program with the Placerville Police Department. The mutual aid agreement requires the Sheriff's Office to handle all incidents requiring a SWAT team and to respond to all bomb-related calls for El Dorado County and the City of Placerville (Kollar, pers. comm., 2010 [Appendix K]).

Calls for Service

The Proposed Project is located in Patrol Zone 1 of the EDSO service area. The EDSO typically receives 79,881 calls for service on an annual basis, with approximately 15,260 generated in Patrol Zone 1 (Neves, pers. comm., 2008 [Appendix K]). Crimes reported in 2009 included 179 violent crimes, 591 property crimes, 520 larceny-theft crimes, and 10 arson cases (Kollar, pers. comm., 2010 [Appendix K]).

Response Times

Average response times within the Placerville and Diamond Springs for all priority types is 6 minutes 20 seconds. (El Dorado County Sheriff 2010 [Appendix K]).

Level of Service Standards

The EDSO strives to maintain a ratio of one deputy per 1,000 residents. The current ratio is just over one deputy per 1,000 residents. While a ratio of deputies per 1,000 has been a commonly used formula, EDSO has recently switched to a concept called a Patrol Allocation Study. The Patrol Allocation Study methodology determines workload based on calls for service, obligated time, and a shift relief factor. The new method is more statistically based than the previous ratio concept.

Recently, the new Patrol Allocation Study determined that EDSO is currently adequately staffed for the Placerville Patrol Division (Neves, pers. comm., 2008 [Appendix K]).

Schools

The Proposed Project is located within the Mother Lode Union School District (for grades kindergarten [K] through 8) and the El Dorado Union High School District (for grades 9 through 12) (EDAW 1998). The nearest school to the project site is the El Dorado Independent High School, located approximately 0.5 mile southwest of the project site.

Parks

The nearest parks to the Proposed Project are located in the City of Placerville, approximately 1.25 miles to the north. The El Dorado Multi-Use Trail (EDMUT) is located north of the project site and Diamond Springs Parkway right-of-way.

Potable Water

The El Dorado Irrigation District (EID) is one of five water purveyors in El Dorado County that works concurrently with the El Dorado County Water Agency in the planning, management, and pursuit of water for use throughout the County. EID serves over 100,000 residents in the County through 38,000 active service connections that rely on surface water to meet potable water demand (Brown and Caldwell 2006).

Water Infrastructure

EID operates a hydroelectric power project that includes dams, reservoirs, and 23 miles of flumes, canals, siphons, and tunnels that deliver water to Forebay Reservoir in Pollock Pines. Service is provided to 14 contiguous service zones and 2 satellite water systems areas from Jenkinson and Folsom Lakes. EID manages facilities and delivery infrastructure for drinking water that includes 1,200 miles of pipeline, 40 miles of ditches, six treatment plants, 33 storage reservoirs, and 21 pumping stations. The project site is located in Division 2 and Service Zone 7 of EID service areas.

Existing EID infrastructure within the project area includes a 6- and 8-inch waterline within the Diamond Road/State Route 49 (SR-49) right-of-way, a 12-inch waterline within SR-49 near Pleasant Valley Road, and an 18-inch waterline within the Missouri Flat right-of-way between Old Depot Road and China Garden Road. EID is currently planning to update and expand the existing undersized waterlines and construct a new 18-inch waterline within the Diamond Springs Parkway right-of-way. Implementation of these updates would be completed prior to the completion of the Diamond Springs Parkway and prior to the start of construction on the proposed DDRC.

Water Supply

The current Water Resources and Service Reliability Report, dated July 13, 2009, is an annually updated report that determines current water supply and water meter availability within EID. The water meter availability for EID is tracked within two distinct water supply areas: the El Dorado

Hills Supply Area and the Western/Eastern Supply Area. The project area receives water from the Western/Eastern Supply Area.

The surface water supply yield in El Dorado Hills is currently restricted by infrastructure, which includes the capacity of the water treatment plant and other conveyance facilities, whereas the supply yield in the Western/Eastern area is not restricted by infrastructure. The current water meter availability for EID is an infrastructure-based yield of 15,163 acre-feet for the El Dorado Hills Supply Area, and a supply-based yield of 36,000 acre-feet for the Western/Eastern Supply Area (EID 2009).

Existing sources of water supply include EID water rights, permits, and contracts to Folsom Lake, Jenkinson Lake (Sly Park Dam), South Fork American River and tributaries, North Fork Cosumnes River, Clear Creek, Squaw Hollow Creek, Middle Fork Cosumnes River/Outingdale; Weber Reservoir, Weber Creek, Slab Creek, South Fork American River/Strawberry, Hangtown Creek, Bass Lake Reservoir, and recycled water. Existing and future EID water supply sources are categorized into the following surface water categories:

- Sly Park
- United States Department of the Interior, Bureau of Reclamation (USBR) Water Service Contract-Folsom Lake
- Project 184 Forebay
- Weber Reservoir and ditch rights-Folsom Lake
- Permit 21112-Folsom Lake
- PL 101-514-Folsom Lake
- Sacramento Municipal Utility District (SMUD)-El Dorado Agreement (Brown and Caldwell 2006)

Water Demand

The EID supply areas are divided to account for the supply yield of the two areas:

1. El Dorado Hills Supply Area. The area primarily receives water pumped from Folsom Lake, with periodic supplemental water provided by gravity flow from the Gold Hill Intertie (GHI). As mentioned previously, the El Dorado Hills service area supply is restricted, due to infrastructure limitations (EID 2009).
2. Western/Eastern Supply Area, The area currently receives gravity-supplied water from the District's eastern sources: Project 184 Forebay and Jenkinson Lake. As of January 1, 2009, there were 1,315 equivalent dwelling units (EDUs) available in the Western/Eastern Water Supply Region (EID 2010).

Table 4.10-1 summarizes the reliability of EID surface water received through numerous contracts or rights. The reliability of EID's water supply is a measure of a system's expected success in managing water shortages that are due to seasonal or climatic shortage vulnerability.

Table 4.10-1: EID Water Supply Reliability Summary

Surface Water Supply Sources	Normal Water Year Acre-Feet	Single-Dry Water Year Acre-Feet
Sly Park	23,000	21,000
USBR-Folsom Lake	7,550	5,660
Project 184 Forebay	15,080	15,080
Weber Reservoir/Ditch-Folsom Lake	4,560	4,560
Permit 21112-Folsom Lake	17,000	17,000
PL101-514-Folsom Lake	7,500	5,625
SMUD-El Dorado Agreement	20,000	15,000
Recycled Water	6,963	6,963
Water loss reduction	2,000	2,000
Total	103,653	92,888
Source: EID, 2009.		

Water Balance

Table 4.10-2 summarizes EID's current and projected normal year water supplies versus demand. The table indicates that EID has sufficient water to meet the projected demand of its service area during the indicated time.

Table 4.10-2: EID Normal Year Water Supply and Demand Comparison

EID Surface Water	Current 2005 Year Acre-Feet	Projected 2010 Year Acre-Feet	Projected 2015 Year Acre-Feet	Projected 2020 Year Acre-Feet	Projected 2025 Year Acre-Feet	Projected 2030 Year Acre-Feet
Supply Totals	70,200	82,065	83,362	103,653	103,653	103,653
Demand Totals	47,782	56,094	64,406	72,718	81,030	89,342
Difference	22,418	25,971	18,956	30,935	22,623	14,311
Source: EID, 2006.						

Table 4.10-3 summarizes EID's current and projected single-dry year water supplies versus demand. The table indicates that EID has sufficient water to meet the projected demand of its service area during the indicated time.

Table 4.10-3: EID Single-Dry Year Water Supply and Demand Comparison

EID Surface Water	Current 2005 Year Acre-Feet	Projected 2010 Year Acre-Feet	Projected 2015 Year Acre-Feet	Projected 2020 Year Acre-Feet	Projected 2025 Year Acre-Feet	Projected 2030 Year Acre-Feet
Supply Totals	66,310	76,300	77,597	92,888	92,888	92,888
Demand Totals	47,782	56,094	64,406	72,718	81,030	89,342
Difference	18,528	20,206	13,191	20,170	11,858	3,546
Source: EID Final Urban Water Management Plan 2005 Update, dated January 2006.						

Project Site Potable Water Facilities

The EID currently provides domestic water to the project site. An existing 10-inch waterline is located in the Throwita Way right-of-way. Other nearby existing water infrastructure includes a 6-inch and an 8-inch waterline in the SR-49 right-of-way, and an existing waterline on the adjacent MRF property. As a part of the Diamond Springs Parkway Project, and prior to the construction of the DDRC Project, the existing waterlines in the SR-49 right-of-way would be expanded and a new 18-inch waterline would be constructed within the Diamond Springs Parkway right-of-way.

Wastewater

Wastewater services would be provided by the EID. The EID operates two wastewater treatment plants, the Deer Creek Wastewater Treatment Plant (DCWWTP) and the El Dorado Hills Wastewater Treatment Plant (EDHWTP) (EDAW, 2003). The Deer Creek WWTP, located 2 miles south of U.S. Highway 50 (US-50) off Deer Creek Road, provides wastewater treatment service to the project area and is described in more detail below.

Collection System

The Deer Creek WWTP service area, which includes the project area, encompasses approximately 24 square miles with approximately 95 miles of pipelines ranging from 4 to 30 inches in diameter. Pipe materials consist of asbestos cement and vitreous clay. Newer portions of pipeline are PVC and high-density polyethylene (HDR Engineering, Inc. 2001).

EID tracks the condition of the existing collection system and maintains data describing the capacity of the existing lift stations and the current system demands. In addition, EID conducts an evaluation to compare system buildout demands with the capacity of the existing facilities based on existing land use. EID has targeted main lift stations and sewers for upgrades and replacement or rehabilitation within the next 20 years. The phased expansion and total buildout of the collection system will depend on factors such as development potential, phasing of collection system improvements, and increasing needs for system capacity (HDR Engineering, Inc. 2001).

The EID Wastewater Master Plan Update provides an overview of the existing collection system, an analysis of capacity improvements and a summary of recommended improvements. Wastewater

flows in the collection system are calculated by converting EDU to an equivalent flow. A flow of 240 gallons per day (based on average dry weather flow) per EDU matches flows recorded at the treatment plant (HDR Engineering, Inc. 2001).

The Deer Creek WWTP provides an average dry weather flow (ADWF) capacity of 3.6 million gallons per day (mgd). As of 2008, the ADWF to the plant was approximately 3.01 mgd, leaving approximately 590,000 gallons per day of remaining capacity (EID 2009). Table 4.10-4 summarizes the Deer Creek WWTP flow and EDU data along with treatment plant capacity projections.

Table 4.10-4: EID Wastewater Low and High Flow Projections Summary

Treatment Plant	Year	Low Flow Projection	High Flow Projection
Deer Creek WWTP	2015	3.1 mgd (13,000 EDU)	3.1 mgd (13,100 EDU)
Deer Creek WWTP	2025	3.6 mgd (15,000 EDU)	3.6 mgd (15,100 EDU)
Notes: Deer Creek WWTP Flows based on 240 GPD/EDU. Source: HDR Engineering, Inc., 2001.			

Project Site Wastewater Facilities

No sewer service is currently present at the project site. A 6-inch gravity sewer line is located in the Diamond Road (SR-49) right-of-way, approximately 400 feet southeast of the project site. According to EID, the sewer line currently has adequate capacity to serve the Proposed Project (EID 2010).

Stormwater

The project area is located within the Weber Creek drainage area, in the American River Watershed, and is included as part of the Cosumnes, American, Bear and Yuba Watersheds (CABY) Integrated Regional Water Management Plan. The majority of the project area's stormwater drains in a northerly direction by means of a storm drain system, which eventually discharges stormwater to Weber Creek. A single stormwater drain is located on the project site in the northern half of APN 051-250-46 and connects to stormwater generated by Throwita Way (Youngdahl 2007b). Refer to Section 4.7, Hydrology and Water Quality, for details related to stormwater management in the project area.

Solid Waste

Construction waste pickup for the project would be provided by El Dorado Disposal, Inc., which provides comprehensive solid waste and recycling services to unincorporated El Dorado County including construction, demolition, and debris recycling.

In accordance with Assembly Bill 939, the County prepared an Integrated Waste Management Plan, which includes a Source Reduction and Recycling Element (SRRE). In order to meet its diversion goals, the County has implemented a number of SRRE programs, including the establishment of two Material Recovery Facilities (MRFs).

The Western El Dorado County MRF is located at 4100 Throwita Way, directly adjacent to the project study area. The MRF, which is currently operating near or above capacity, assists the County in accomplishing waste diversion goals through the implementation of successful programs for source reduction, composting and recycling. The MRF processes solid wastes through a sorting line, and recyclables are diverted to market. The MRF was originally designed to accommodate 400 tons of waste per day and is currently operating near or above its capacity.

As of 2006, the unincorporated areas of El Dorado County were diverting 54 percent of solid waste from landfills, which meets the 50 percent diversion rate mandated by Assembly Bill 939 (CIWMB 2008). In 2007 and 2008, unincorporated areas diverted only 43 percent of solid waste. Note that diversion statistics for 2007 and 2008 have not been formally reviewed or approved by CalRecycle. As a result of Senate Bill 1016, the State of California changed the reporting requirements for solid waste diversion from the total percentage of waste diverted from landfills to the maximum pounds per day per person (lbs/day/person) diverted. Accordingly, the statewide 50-percent diversion rate requirement is now calculated by the division of total waste disposal divided by a jurisdiction's population. Unincorporated areas of El Dorado County diverted 4.1 lbs/day/person in 2007 and 4.4 lbs/day/person in 2008, meeting state-mandated requirements. After recyclable materials are separated from the waste stream at the MRF, solid waste is taken to the Kiefer Landfill in Sacramento County and Forward Landfill in San Joaquin County for disposal.

Landfill Capacity

Kiefer Landfill, owned and operated by Sacramento County, is located at the intersection of Kiefer Boulevard and Grant Line Road. It is the only landfill facility in Sacramento County permitted to accept household waste from the public. In general, waste is accepted from the general public, businesses, and private waste haulers. The landfill facility sits on 1,084 acres, but currently uses only 250 acres as landfill. The landfill was opened in 1967 and currently has over 16 million tons of municipal solid waste in place. The site recovers 900,000 tons of waste annually and is open 365 days a year. Current permitted maximum daily throughput is 10,815 tons. As of September 2005, Keifer Landfill had 112,900 cubic yards of remaining capacity (Calrecycle 2010).

Forward Landfill, owned and operated by Forward Incorporated, is located at 9999 Austin Road, near the City of Stockton, California in San Joaquin County. It currently occupies approximately 567 acres and can currently receive designated and non-hazardous solid wastes. The operation includes (1) landfill waste management areas for waste treatment and disposal; (2) a transfer station/resource recovery facility for separating, sorting, and recycling activities; and (3) storage and support areas. Currently, the facility is permitted for disposal on 218 acres of its facility. It is a regional sanitary landfill that receives solid waste from several counties in California. The permitted maximum daily throughput is 8,668 tons per day. As of May 2008, Forward Landfill had more than 23 million cubic yards of remaining capacity (Calrecycle 2010).

Energy

PG&E provides electricity to all or part of the 47 counties in California, constituting most of the northern and central portions of the state. In 2008, PG&E obtained 30 percent of electricity from its own generation sources and the remaining 70 percent from outside sources. PG&E-owned generating facilities include nuclear, natural gas, and hydroelectric, with a net generating capacity of more than 6,200 megawatts. Outside suppliers to PG&E include the California Department of Water Resources, irrigation districts, renewable energy suppliers, and other fossil fuel-fired suppliers. PG&E operates approximately 159,000 circuit miles of transmission and distribution lines. PG&E is interconnected with electric power systems in the western Electricity Coordinating Council, which includes 14 western states; Alberta and British Columbia, Canada; and parts of Mexico.

In 2008, PG&E delivered 88,127 gigawatt-hours of electricity to its customers. Commercial customers accounted for largest segment of demand, with 39 percent of the total.

Propane

There are several businesses providing propane and propane delivery services within the vicinity of Diamond Springs in El Dorado County.

Telephone and Cable

Telephone service is provided to the project area by SBC, AT&T and other local and long-distance phone services. AT&T and Comcast provide cable television and broadband internet service.

4.10.3 - Regulatory Framework

Federal

Integrated Waste Management Act of 1989 (AB 939)

Assembly Bill 939 (AB 939) requires all cities and counties in California to divert 50 percent of their waste stream from conventional landfills to alternative means of disposal by 2000. Cities and counties are also required to prepare Source Reduction and Recycling Elements (SRRE). The SRRE requires that counties demonstrate how they would achieve the mandated goals through the implementation of diversion programs.

State

California Building Standards Code

The California Building Standards Code establishes building requirements for construction and renovation. The most recent version of the California Building Standards Code was adopted in 2009 by the California Building Standards Commission and took effect January 1, 2011. It is based on the International Code Council's Building and Fire Codes. Included in the California Building Standards Code are the Electrical Code, Mechanical Code, Plumbing Code, Energy Code, and Fire Code.

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code Sections 10610-10656) require that all urban water suppliers prepare urban water management plans and update them every 5 years.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989, effective January 1990. The legislation required each local jurisdiction in the State to set diversion requirements of 25 percent in 1995 and 50 percent in 2000; established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated.

California Public Utilities Commission

The California Public Utilities Commission regulates privately owned telecommunication, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. It is the responsibility of the Public Utilities Commission to (1) assure California utility customers safe, reliable utility service at reasonable rates; (2) protect utility customers from fraud; and (3) promote a healthy California economy. The Public Utilities Code, adopted by the legislature, defines the jurisdiction of the Public Utilities Commission.

Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings

Title 24, Part 6, of the California Code of Regulations establishes California's Energy Efficiency Standards for Residential and Nonresidential Buildings. The standards were updated in 2005 and recently amended in 2008. The 2008 standards set a goal of reducing growth in electricity use by 561.2 gigawatt-hours per year (GWh/y) and growth in natural gas use by 19 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 151.2 GWh/y of electricity savings and 3.3 million therms. For nonresidential buildings, the standards establish minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs.

Local

El Dorado County General Plan

The Public Services and Utilities Element and the Public Health, Safety, and Noise Element of the El Dorado County General Plan, adopted July 19, 2004 (amended 2008), provides policies pertaining to fire protection, emergency medical, public safety and law enforcement services. The 2004 General Plan states that while the Public Services and Utilities Element is not required by state law, the subjects addressed are critical to the County's future growth and development. As part of the Proposed Project, a proposed General Plan Amendment and rezone would designate the site for commercial uses. As such, the Project would be required to comply with the following General Plan policies pertaining public services and utilities under the new Commercial designation (Table 4.10-5).

Table 4.10-5: Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
Policy 5.1.2.1: Prior to the approval of any discretionary development, the approving authority shall make a determination of the adequacy of the public services and utilities to be impacted by that development. Where, according to the purveyor responsible for the service or utility as provided in Table 5-1, demand is determined to exceed capacity, the approval of the development shall be conditioned to require expansion of the impacted facility or service to be available concurrent with the demand, mitigated, or a finding made that a CIP project is funded and authorized which will increase service capacity.	Consistent: The applicable public services and utility providers were contacted regarding their ability to serve the Proposed Project. The provider's responses can be found in Appendix K, Public Service and Utility Letters. As indicated by the letters, and with the implementation of mitigation measures included in Section 4.10 of this Draft EIR, the providers would have sufficient capability to serve the Proposed Project.
Policy 5.2.1.2: An adequate quantity and quality of water for all uses, including fire protection, shall be provided for with discretionary development.	Consistent: Implementation of Mitigation Measure PSU-1 would ensure adequate water is available to serve the Proposed Project.
Policy 5.2.1.3: All medium-density residential, high-density residential, multifamily residential, commercial, industrial and research and development projects shall be required to connect to public water systems when located within Community Regions and to either a public water system or to an approved private water systems in Rural Centers.	Consistent: The DDRC would connect to EID waterlines located in the Diamond Springs Parkway, Throwita Way, and/or Diamond Road (SR-49).
Policy 5.2.1.4: Rezoning and subdivision approvals in Community Regions or other areas dependent on public water supply shall be subject to the availability of a permanent and reliable water supply.	Consistent: As discussed in Section 4.10, Public Services and Utilities, EID has indicated that sufficient water supply is available to serve the Project.
Policy 5.2.1.6: Priority shall be given to discretionary developments that are infill or where there is an efficient expansion of the water supply delivery system.	Consistent: EID's water supply delivery system will be expanded adjacent to the project site during the development of the Diamond Springs Parkway. The DDRC will utilize the expanded waterlines as appropriate.
Policy 5.1.2.2: Provision of public services to new discretionary development shall not result in a reduction of service below minimum established standards to current users, pursuant to Table 5-1 [of the 2004 General Plan].	Consistent: Refer to the consistency determination for General Plan Policy 5.1.2.1.
Policy 5.4.1.1: Require storm drainage systems for discretionary development that protect public health and safety, preserve natural resources, prevent erosion of adjacent and downstream lands, prevent the increase in potential for flood hazard or damage on either adjacent, upstream or	Consistent: Stormwater runoff from the project site would be directed to a network of storm drain piping and inlets throughout the site. Stormwater would eventually reach Weber Creek. Should it be determined as necessary, a detention basin would be constructed to ensure post-development runoff levels are equal to or less than pre-development levels.

Table 4.10-5 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
downstream properties, minimize impacts to existing facilities, meet the National Pollution Discharge Elimination System (NPDES) requirements, and preserve natural resources such as wetlands and riparian areas.	Implementation of Mitigation Measure HYD-1, as included in Section 4.7, Hydrology and Water Quality, of this Draft EIR, would ensure that National Pollution Discharge Elimination System (NPDES) requirements are met and that a SWPPP is prepared. Implementation of Mitigation Measure BIO-2a, Mitigation Measure BIO-2b, and Mitigation Measure-BIO2c would reduce impacts to wetlands and riparian areas.
Policy 5.6.1.1: Promote and coordinate efforts with utilities for the undergrounding of existing and new utility distribution lines in accordance with current rules and regulations of the California Public Utility Commission and existing overhead power lines within scenic areas and existing Community Regions and Rural Centers.	Consistent: The Proposed Project would construct all onsite utilities underground.
Policy 5.6.1.2: Reserve adequate rights-of-way to facilitate expansion of services in a timely manner.	Consistent: The Project does not require reservation of additional rights-of-way.
Policy 5.7.1.1: Prior to approval of new development, the applicant will be required to demonstrate that adequate emergency water supply, storage, conveyance facilities, and access for fire protection either are or will be provided concurrent with development.	Consistent: As discussed in Section 4.10, Public Services and Utilities of this Draft EIR, adequate emergency water is available to the project site pending the approval of a Facility Report Plan by the El Dorado Irrigation District. Implementation of Mitigation Measure PSU-1 would ensure the Facility Report Plan is approved and implemented.
Policy 5.7.2.1: Prior to approval of new development, the responsible fire protection district shall be requested to review all applications to determine the ability of the district to provide protection services. The ability to provide fire protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.	Consistent: The Diamond Springs/El Dorado Fire Protection District has reviewed the Proposed Project and provided recommendations for the construction of emergency water supply infrastructure, including fire hydrants. Implementation of Mitigation Measure PSU-1a and Mitigation Measure PSU-1b would ensure the Proposed Project is designed to allow for proper fire protection and emergency access, thereby ensuring consistency with this policy.
Policy 5.7.3.1: Prior to approval of new development, the Sheriff's Department shall be requested to review all applications to determine the ability of the department to provide protection services. The ability to provide protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.	Consistent: The El Dorado County Sheriff's Department has been notified of the Proposed Project and has indicated that the number of calls for service for the Diamond Springs/Placerville area would increase as a result of project implementation. However, the Sheriff's department did not indicate that the ability to provide protection to existing development would be reduced below an acceptable level as a consequence. Nonetheless, implementation of Mitigation Measure PSU-2 would provide onsite security, thereby reducing the need for Sheriff Department services.

Table 4.10-5 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
Policy 6.2.3.1: As a requirement for approving new development, the County must find, based on information provided by the applicant and the responsible fire protection district that, concurrent with development, adequate emergency water flow, fire access, and fire fighting personnel and equipment will be available in accordance with applicable State and local fire district standards.	Consistent: Refer to the consistency determination for Policy 5.7.2.1.
Policy 6.2.3.2: As a requirement of new development, the applicant must demonstrate that adequate access exists, or can be provided to ensure that emergency vehicles can access the site and private vehicles can evacuate the area.	Consistent: The project site would provide adequate emergency vehicle access and evacuation.
Source: El Dorado County General Plan, 2004; MBA, 2010.	

El Dorado County Ordinance Code*Chapter 13.20.000 Fire Protection Development Fees*

Chapter 13.20.000 of the El Dorado Ordinance Code requires that a development impact fee be paid to finance public improvements to fire protection services.

4.10.4 - Methodology

MBA consulted with public services providers regarding their ability to serve the Proposed Project. Questionnaires were sent to the El Dorado County Sheriff's Office, the Diamond Springs/El Dorado Fire Protection District, the El Dorado Irrigation District, and PG&E requesting information about their ability to serve the Proposed Project. The agency responses are provided in Appendix K. In addition, MBA reviewed the El Dorado County General Plan and the County Zoning Code to identify applicable policies and provisions that pertain to the Proposed Project.

4.10.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, public services and utilities impacts resulting from the implementation of the Proposed Project would be considered significant if the project would:

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- a) Fire Protection?
- b) Police Protection?
- c) Schools? (Refer to Section 6.5, Effects Found Not To Be Significant.)
- d) Parks? (Refer to Section 6.5, Effects Found Not To Be Significant.)
- e) Other public facilities? (Refer to Section 6.5, Effects Found Not To Be Significant.)

To determine whether impacts to utilities and services are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?
- 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?
- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
- Comply with federal, state, and local statutes and regulations related to solid waste?
- Result in inefficient, wasteful, or unnecessary consumption of energy?

4.10.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the Proposed Project and provides mitigation measures where necessary.

Fire Protection/Emergency Medical Services

Impact PSU-1:	The Proposed Project may adversely impact fire protection and emergency medical services.
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Impact Analysis

The Proposed Project includes nine new commercial/retail buildings. According to a letter from the Diamond Springs-El Dorado Fire Protection District, dated March 29, 2010, developments similar to that of the Proposed Project require approximately 20 hours of staff time per year unrelated to

incident responses or construction. Concerning incidents requiring response, similar developments result in approximately 98 calls for service each year, during which 50 percent of the District's emergency resources are required for approximately 45 minutes.

The District expressed concern regarding the ability of existing fire flows to serve the Project. As outlined in the Facilities Improvement Letter, dated March 12, 2010, minimum fire flow capability for the Proposed Project is 2,125 gallons per minute (GPM) for a 4-hour duration while maintaining 20 pounds per square inch residual pressure. The El Dorado Irrigation District indicated that it is able to deliver the required fire flow levels. However, in order to receive this level of fire flow, a waterline extension connecting to existing waterlines in multiple locations, including the 10-inch waterline in Throwita Way would be required. Prior to project construction, a Facility Report Plan will be required to address the expansion of waterlines and the specific fire flow requirements. Implementation of Mitigation Measure PSU-1 would ensure the Facility Report Plan is implemented. The construction of the required waterlines are considered in this Draft EIR, and the Project would be required to abide by all applicable mitigation.

The District also expressed concern regarding bulk propane distributors located near the project site. There are two bulk propane distributors located on Bradley Drive and Truck Street north of the project site and five large-volume propane tanks of approximately 25,000 to 30,000 gallons each. The propane distributors would be approximately 300 and 450 feet from the DDRC's northern property line and located across the Diamond Springs Parkway. The propane tanks are maintained by the propane distributors according to applicable regulations and would not be disturbed by the Proposed Project.

As required by the Uniform Fire Code and the El Dorado County General Plan Public Health, Safety and Noise Element, the Proposed Project would be required to include specific design features such as appropriate emergency access, and would require structures to be built with approved building materials. Conformance with these codes reduces the risks associated with fire hazards. To ensure compliance, mitigation is proposed requiring the Project applicant to submit final site plans to the District for review and approval.

Implementation of the Proposed Project would not have a significant impact on fire services provided for the area. Implementation of PSU-1 would ensure the DDRC has adequate fire flow. The Main Street fire station could provide necessary fire services for the Proposed Project. Therefore, the impact on fire services due to the function of the Proposed Project site is less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

- MM PSU-1a** Prior to the approval of the Improvement Plan for the project site, the Project applicant shall submit to El Dorado Irrigation District a Facility Report Plan that shall address the expansion of waterlines and the specific fire flow requirements. The approved Facility Report Plan shall be incorporated into the Project's site plans.
- MM PSU-1b** Prior to building permit issuance, the Project applicant shall submit to El Dorado-Diamond Springs Fire District a final site plan for review and approval of appropriate emergency access and building materials as required by the Uniform Fire Code and the El Dorado County General Plan Public Health, Safety and Noise Element. Any revisions provided by El Dorado-Diamond Springs Fire District shall be incorporated into the Proposed Project.

Level of Significance After Mitigation

Less than significant impact.

Police Protection

Impact PSU-2: The Proposed Project may adversely impact police protection.

Impact Analysis

The Proposed Project consists of developing approximately 280,515 square feet of commercial/retail space. EDSO provided two letters commenting on the Proposed Project. The first letter, dated September 26, 2008, indicated that the EDSO expected to have adequate staffing to serve calls expected to be generated by the Proposed Project. The second letter, received March 19, 2010, indicated that an increase in property crimes and crimes against persons would be expected as a result of the Proposed Project, potentially necessitating an increase in the number of officers needed to serve the Diamond Springs/Placerville area. Both letters are provided in Appendix K, Public Service and Utility Letters, of this EIR.

An exact number of expected additional calls was not provided; however, EDSO reasoned that one additional deputy per shift may be required once the Proposed Project reaches full occupancy/usage. Accordingly, mitigation is proposed that would require the Project applicant to provide onsite security that would serve as a first line of defense against criminal activity and nuisances and would be able to resolve minor incidents that ordinarily would not warrant police response (e.g., a lost child, a dispute between patrons).

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM PSU-2 Prior to full operation of the first retailer located within the Diamond Dorado Retail Center, onsite security patrol shall be established. The security patrol shall monitor and patrol the DDRC's stores and parking areas commensurate with the hours of operation of the business with the longest hours of operation. The security patrol shall act as the first line of defense against criminal activity and nuisances and resolve minor incidents as allowable by law.

Level of Significance After Mitigation

Less than significant impact.

Potable Water

Impact PSU-3:	The Project would have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?
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Impact Analysis

Water services for the Proposed Project would be provided by the El Dorado Irrigation District (EID) via a connection to an existing waterline located in either Throwita Way or Diamond Springs Parkway. Additional water connection may be established to waterlines in the SR-49 right-of-way and on the adjacent MRF property. All connections would be coordinated with EID.

As part of the application process of the Proposed Project, the applicant has requested and received a Facility Improvement Letter from the EID. The Facility Improvement Letter describes the existing potable water system and any improvements that will be needed in order to receive service at the project site. The Facility Improvement Letter for the Proposed Project has requested that the Project applicant also prepare a Facility Plan Report for EID review and approval. The Facility Improvement Letter and Facility Plan Report both assess the adequacy of the water system to provide service to the applicant and thereby identify the necessary improvements that must be constructed prior to the issuance of water meters. Implementation of PSU-1 would ensure the Facility Plan Report is provided to EID and incorporated into the Proposed Project.

According to the Facility Improvement Letter, the Project would be expected to generate an average water demand of approximately 44 EDUs per year, based on demand figures for retail/office uses. Based on information provided in Table 1 of EID's 2009 Water Resources and Service Reliability Report, one EDU equals approximately 0.59 acre-foot of water. In terms of water supply, as of January 1, 2009, there were 1,315 EDUs available in EID's Western/Eastern Water Supply Region (EID 2010). Accordingly, sufficient water is available to serve the Proposed Project. Since the Proposed Project's water demand is consistent with the District's projections for water availability within its service area, the Proposed Project would result in less than significant impacts in the District's water supply.

Nonetheless, because long-term water supply is a significant concern in California, the Proposed Project can reduce its demand on water supply through the implementation of water conservation measures. Mitigation is proposed that would require the Project applicant to implement outdoor irrigation and indoor domestic water conservation measures and practices. These measures would reduce overall project demand for potable water and ensure that long-term water supply impacts are less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

- MM PSU-3a** Prior to issuance of building permits, the Project applicant shall submit final landscaping plans in accordance with the plans submitted as part of the project application to El Dorado County for review and approval. The final landscaping plans shall be in accordance with the Model Landscape and Water Conservation Standards and include the following outdoor irrigation water conservation measures:
- Separate metering of irrigation water
 - Drought-resistant vegetation
 - Irrigation systems employing at least four of the following features:
 - Drip irrigation
 - Low-precipitation-rate sprinklers
 - Bubbler/soaker systems
 - Programmable irrigation controllers with automatic rain shutoff sensors
 - Matched-precipitation-rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system
 - Conservative sprinkler spacings that minimize overspray onto paved surfaces
 - Hydrozones that keep plants with similar water needs in the same irrigation zone
 - Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration
 - Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention
- MM PSU-3b** Prior to issuance of building permits, the Project applicant shall submit final building plans to El Dorado County for review and approval that identify the following indoor water conservation measures:
- Separate metering of domestic water
 - Low-flow or ultra-low-flow toilets and urinals
 - Faucet aerators or low-flow faucets in bathrooms

Level of Significance After Mitigation

Less than significant impact.

Wastewater

Impact PSU-4: The Project would be served by adequate wastewater treatment capacity.

Impact Analysis

The Proposed Project would be served by wastewater collection services provided by EID. As a part of the Proposed Project, a sewer line would be constructed and would connect to an existing, EID, 6-inch gravity sewer line located in the Diamond Road (SR-49) right-of-way, approximately 400 feet southeast of the project site. EID has indicated that the existing sewer line contains adequate capacity to serve the Proposed Project (EID 2010). Wastewater collected by EID at the project site would be treated at the Deer Creek WWTP, which operates under Regional Water Quality Control Board Order No. 99-130 and NPDES No. CA 0078662.

According to the Facilities Improvement Letter provided by EID, the Proposed Project would require 50 EDUs of sewer service. As designated by EID's Wastewater Master Plan, 1 EDU is equal to 240 gallons per day of wastewater. Therefore, the Proposed Project would create approximately 12,000 gallons of wastewater per day.

The Deer Creek WWTP has a dry weather flow capacity of 3.6 mgd but currently accepts approximately 2.5 mgd, leaving approximately 1.1 mgd of remaining capacity (EID 2005). Therefore, the Deer Creek WWTP would have adequate capacity to accommodate 12,000 gallons of additional wastewater on per day. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Stormwater Drainage

Impact PSU-5: The Project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

Impact Analysis

The Proposed Project would permanently convert the project site from temporary industrial uses to commercial retail uses. Existing onsite stormwater drainage consists primarily of sheetflows or surface runoffs to the unnamed drainage channel to the west, a roadside ditch along Diamond Road

(SR-49), a storm drain system near Bradley Drive, and a storm drain system in Throwita Way (CTA 2010).

The Proposed Project would construct a network of storm drain piping and inlets throughout the DDRC site. The storm drain system would convey runoff to one of four discharge points. Post-development discharge flows were calculated in compliance with the County of El Dorado Drainage Manual (CTA 2010) and are provided in Table 4.10-6.

Table 4.10-6: Pre- and Post-Development Stormwater Flows

Discharge Point	Pre-Development Flows (cfs)		Post-Development Flows (cfs)	
	10-Year Storm	100-Year Storm	10-Year Storm	100-Year Storm
1	55.4	82.4	56.3	83.3
2	5.9	8.9	5.8	8.6
34	5.6	8.3	5.4	8.0
57	11.7	17.6	11.2	16.5
Notes: cfs = cubic feet per second Discharge points are as numbered in the Preliminary Drainage Study included in Appendix I. Source: CTA, 2010.				

As shown in the table, flows would decrease at all discharge point except discharge point one. Flows at discharge point one would increase by 0.9 cubic feet per second (cfs), or 1 percent, for both the 10-year and 100-year storm event. CTA determined in a 2010 Preliminary Drainage Study (Appendix I) that, due to the small increase in runoff and the proximity of the large Weber Creek tributary, a detention basin to moderate post-construction stormwater flows would not be necessary. However, CTA also indicated that, should it be deemed necessary, a detention basin could be constructed in the northwest corner of the project site for discharge point one, north of the future Diamond Springs Parkway right-of-way. The detention basin would provide approximately 0.7 acre of volume storage and would reduce post-development flows at discharge point one to 55.2 for a 10-year storm event and 80.9 for a 100-year storm event.

In summary, the Proposed Project would include a stormwater system that would discharge runoff and if necessary impound runoff at a rate similar to, or less than, the existing pre-development condition of the site. Construction of the stormwater system would be required to abide by Mitigation Measure HYD-1 and all other applicable mitigation measures included in this Draft EIR. Accordingly, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Solid Waste

Impact PSU-6: **The Project would generate substantial amounts of solid waste during both construction and operations.**

Impact Analysis

Solid waste would be generated by construction and operational activities. Each is discussed below.

Construction Waste Generation

Short-term construction waste generation is summarized in Table 4.10-7. The estimate of 545.6 tons was calculated using an average of 3.89 pounds of debris per square foot of non-residential construction, provided by the United States Environmental Protection Agency.

Table 4.10-7: Construction Waste Generation

Waste Generation Rate	Square Footage	Construction Waste Generation (tons)
3.89 pounds/square foot	280,515	545.6
Notes: 1 ton = 2,000 pounds Source: United States Environmental Protection Agency, 1998; MBA, 2010.		

While the estimate of 545.6 tons of construction waste would be an extremely small amount relative to the existing capacity at the Kiefer and Forward Landfills, it is still considered substantial because El Dorado County is required to meet state-mandated solid waste diversion goals. Therefore, mitigation is proposed that would require the Project applicant to retain a contractor to recycle construction and demolition debris while complying with the El Dorado County Construction and Demolition Debris Ordinance, Chapter 8.43. The implementation of this mitigation measure would reduce potential impacts to a level of less than significant.

Operational Waste Generation

Operational solid waste generation estimates were calculated by using a standard commercial waste generation rate provided by the California Integrated Waste Management Board. As shown in Table 4.10-8, the Proposed Project is estimated to generate 673.2 tons of solid waste annually.

Table 4.10-8: Operational Waste Generation

Waste Generation Rate	Square Footage	Operational Waste Generation (tons)
4.8 pounds/square foot/year	280,515	673.2
Notes: 1 ton = 2,000 pounds Source: California Integrated Waste Management Board, 2006; MBA, 2010.		

As discussed previously El Dorado County is required to meet the state-mandated solid waste diversion goal of 50 percent. Accordingly, mitigation is proposed that would require the Project applicant to provide onsite recycling and green waste collection and storage facilities. The provision of these facilities would allow for convenient and efficient collection and storage of these materials. The implementation of this mitigation measure would reduce solid waste generation and reduce demand for landfill capacity, and ensure compliance with federal, state, and local statutes and regulations related to solid waste. Therefore, solid waste impacts would be reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

- MM PSU-6a** Prior to issuance of building permits, the Project applicant shall retain a qualified contractor to perform construction and demolition debris recycling. The contractor shall be approved by El Dorado County. The Project applicant shall provide documentation to the satisfaction of El Dorado County Ordinance Code Chapter 8.43, demonstrating that construction and demolition debris has been recycled.
- MM PSU-6b** Prior to issuance of the final certificate of occupancy, the Project applicant shall install onsite facilities necessary to collect and store recyclable materials and green waste. Recycling collection facilities located in public spaces shall be of high-quality design and provide signage indicating accepted materials. All onsite recycling and green waste storage facilities shall be screened from public view.

Level of Significance After Mitigation

Less than significant impact.

Energy

Impact PSU-7: The Project would not result in the inefficient, unnecessary, or wasteful consumption of energy.

Impact Analysis

PG&E would serve the Proposed Project with electricity. Table 4.10-9 provides an estimate of the Proposed Project's annual electricity and natural gas consumption. These figures were derived from

energy consumption rates provided by the United States Energy Information Administration. The consumption rates are based on national consumption figures for commercial buildings that operate continuously and, therefore, likely overstate actual consumption, because it includes structures located in different climate regions or states with less stringent energy efficiency standards than California.

Table 4.10-9: Project Energy Demand

Energy Source	Annual Consumption Rate	Project Square Footage	Annual Consumption
Electricity	22.04 kWh/square foot	280,515	6.2 million kWh
Notes: kWh = kilowatt hour Source: United States Energy Information Administration, 2008; MBA, 2010.			

The Proposed Project's structures would be designed in accordance with Title 24, California's Energy Efficiency Standards for Residential and Non-residential Buildings. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs. The incorporation of the most recent Title 24 standards into the Project would ensure that the Project would not result in the inefficient, unnecessary, or wasteful consumption of energy.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

4.11 - Transportation

4.11.1 - Introduction

This section describes the existing transportation setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the Traffic Impact Analysis, prepared in July 2010, as well as supplemental reports dated December 10, 2010 and June 6, 2011 by Kimley-Horn and Associates, Inc. (KHA), all three of which are included in this EIR as Appendix L.

4.11.2 - Environmental Setting

The Proposed Project would construct the Diamond Dorado Retail Center (DDRC) on the southwest corner of the future Diamond Springs Parkway and existing Diamond Road (SR-49). The EIR for the Diamond Springs Parkway (a separate project under the purview of El Dorado County Department of Transportation [DOT]) was approved by the El Dorado County Board of Supervisors on May 24, 2011. Phase 1 of the Project (consisting of a two-lane Parkway) is scheduled in the County's Capital Improvement Plan (CIP) for completion in 2013. The purpose of the Diamond Springs Parkway is to improve traffic circulation in the Diamond Springs area by providing a connection between Missouri Flat Road and Diamond Road (SR-49). This Draft EIR assumes that a two-lane parkway would be completed prior to the construction of the DDRC Project. Subsequent operation of the DDRC would increase vehicular traffic in the Diamond Springs area. The following describes the network of roadways serving the project site and existing traffic conditions as identified in the Traffic Impact Analysis prior to the implementation of the DDRC.

Roadway Network

The project site is located in El Dorado County. The following is a description of the primary roadways in the vicinity of the Proposed Project.

U.S. Route 50 (US-50). US-50 is an east-west freeway located, at its closest point, 1.5 miles northwest of the project site. Generally, US-50 serves all of El Dorado County's major population centers and provides connections to Sacramento County to the west and the State of Nevada to the east. Primary access to the project site from US-50 is provided at the Missouri Flat Road interchange. At the time of this study, the US-50 interchange with Missouri Flat Road was being reconstructed. Within the general project area, US-50 currently serves approximately 57,000 vehicles per day with two travel lanes in each direction.

The interchange reconstruction has occurred in multiple phases, with the first phase, Phase 1A, being completed in 2009, and Phase 1B anticipated to be completed by 2011. Phase 1A included widening the US-50 overcrossing, widening of Missouri Flat Road and Mother Lode Drive, and modifying the US-50 off ramps. Phase 1B will modify the eastbound on-ramp and reconfigure the westbound ramps to eliminate the loop off ramp. Phase 2 would result in the interchange being reconfigured to be a single point urban interchange. Consistent with assumptions utilized in other traffic studies in the

general project area, this study assumes the Phase 1A improvements are in place for the Existing (2010) analysis scenario, and Phase 1B improvements will be in place for the Existing Plus Approved Projects (2015) Conditions. However, because the single point urban interchange is not currently in the County's Capital Improvement Program (CIP) and it is not expected to be funded in the near future, Phase 1B is assumed to remain in place for the Cumulative (2025) Conditions.

State Route 49 (SR-49). State Route 49 (SR-49) is a two-lane state highway located along the eastern boundary of the Proposed Project. SR-49 is named Diamond Road between the city of Placerville to the north, and Pleasant Valley Road to the south of the Proposed Project. SR-49 shares the Pleasant Valley Road alignment for approximately 2.15 miles west of the project area. In the immediate vicinity of the Proposed Project, SR-49 currently serves approximately 7,800 vehicles per day. Under the first phase of the Diamond Springs Parkway Project, SR-49 would be realigned and constructed as a two-lane roadway. The Traffic Impact Analysis and supplemental reports have assumed that only the first phase, or two-lane SR-49, is included in the Existing (2015) and Cumulative (2025) scenarios.

Diamond Springs Parkway. Diamond Springs Parkway is a Proposed divided arterial roadway facility that will connect Missouri Flat Road (north of China Garden) Road and Diamond Road (SR-49), between Lime Kiln Road/Black Rice Road and Bradley Drive. Phase 1 of the Parkway will consist of one travel lane in each direction with traffic signal control at Missouri Flat Road, Throwita Way, and Diamond Road (SR-49). A two-lane Parkway is assumed to be operational prior to the opening of the Proposed Project. Furthermore, consistent with Diamond Springs Parkway traffic study conclusions, year 2010 and 2020 Parkway improvements (mitigations for both LOS and queuing) are assumed to be in place for the year 2015 and 2025 analysis scenarios for this Draft EIR. As noted in Section 3.0, Project Description, the Proposed Project assumes that a two-lane Diamond Springs Parkway would be implemented by DOT prior to the start of construction activities. The second phase of the Diamond Springs Parkway Project would include expansion to a four-lane divided roadway; however, this phase is currently not funded and not needed until 2030. The Traffic Impact Analysis and supplemental reports have assumed that only the first phase, or two-lane SR-49, is included in the Existing (2015) and Cumulative (2025) scenarios.

Missouri Flat Road. Missouri Flat Road is generally a north-south arterial roadway that provides a connection between SR-49 and US-50, and is located west of the Proposed Project. In the immediate vicinity of the project site, this roadway provides one travel lane in each direction. Missouri Flat Road expands to provide two lanes in each direction between Golden Center Drive and Plaza Drive. The portion of the roadway in the area of the interchange at US-50 is being improved with the improvements to the interchange. Missouri Flat Road accommodates approximately 20,000 vehicles per day near the Proposed Project.

Pleasant Valley Road. Pleasant Valley Road is generally an east-west collector roadway located south of the Proposed Project. This facility joins with SR-49 between Missouri Flat Road and

Diamond Road through the community of Diamond Springs. West of Diamond Road, Pleasant Valley Road accommodates approximately 9,300 vehicles per day with one lane in each direction.

China Garden Road. China Garden Road is a minor, two-lane roadway that provides an internal connection between Missouri Flat Road and Pleasant Valley Road (SR-49). Although it serves some local traffic, China Garden Road also supports cut-through traffic between the two previously described major corridors.

Lime Kiln Road. Lime Kiln Road is a minor, two-lane roadway that provides connection between Diamond Road (SR-49) and China Garden Road. It serves some local traffic but also supports cut-through traffic between Diamond Road (SR-49) and Missouri Flat Road via China Garden Road and connects to North Street off Pleasant Valley Road (SR-49).

Throwita Way. Throwita Way is a minor, two-lane roadway that provides connection to Truck Street and Bradley Drive west of Diamond Road (SR-49). South of Bradley Drive, Throwita Way terminates at the Material Recovery Facility. The Material Recovery Facility can only be accessed via Throwita Way.

Level of Service

Intersection Operations

Level of Service (LOS) is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or at an intersection during a specific time interval. It ranges from LOS A (very little delay) to LOS F (long delays and congestion). LOS is measured separately for signalized and un-signalized intersections. The Highway Capacity Manual, 2000 (HCM) includes procedures for analyzing two-way stop controlled (TWSC), all-way stop controlled (AWSC), and signalized intersections. The TWSC procedure defines LOS as a function of average control delay for each minor street approach movement. Conversely, the AWSC and signalized intersection procedures define LOS as a function of average control delay for the intersection as a whole. Table 4.11-1 presents intersection LOS definitions as defined in the HCM.

Table 4.11-1: Intersection Level of Service Criteria

Level of Service (LOS)	Un-Signalized	Signalized
	Average Control Delay* (sec/vehc)	Control Delay per Vehicle (sec/vehc)
A	≤ 10	≤ 10
B	>10-15	>10-20
C	>15-25	>20-35
D	>25-35	>35-55
E	>35-50	>55-80

Table 4.11-1 (cont.): Intersection Level of Service Criteria

Level of Service (LOS)	Un-Signalized	Signalized
	Average Control Delay* (sec/vehc)	Control Delay per Vehicle (sec/vehc)
F	>50	>80
Notes: * Applied to the worst lane/lane group(s) for two-way stop control Source: Highway Capacity Manual, 2000.		

Roadway Segments

Roadway segment LOS definitions are based on the El Dorado County General Plan EIR, Traffic and Circulation, May 2003. Table 4.11-2 presents the applicable roadway segment LOS definitions.

Table 4.11-2: Roadway Segment Level of Service Criteria

Operational Class	Peak-Hour LOS Capacity Threshold (vehicles per hour)				
	A	B	C	D	E
Minor Two-Lane Highway	90	200	680	1,410	1,740
Major Two-Lane Highway	120	290	790	1,600	2,050
Four-Lane, Multilane Highway	1,070	1,760	2,530	3,280	3,650
Two-Lane Arterial	—	—	970	1,760	1,870
Four Lane Arterial, Undivided	—	—	1,750	2,740	2,890
Four Land Arterial Divided	—	—	1,920,	3,540	3,740
Source: Adapted from El Dorado County General Plan EIR, 2003.					

Freeway Mainline Segments

According to the HCM, basic freeway segments are characterized by density, speed, and volume-to-capacity ratio. While all three of these characteristics indicate how well traffic flow is being accommodated, density is the primary measure used to determine segment LOS. Table 4.11-3 presents segment LOS definitions based on an assumed free-flow speed of 65 mph.

Table 4.11-3: Freeway Segment Level of Service Criteria

Level of Service (LOS)	Maximum Service Flow Rate (pc/h/ln)*	Maximum Density (pc/mi/ln)**
A	710	11
B	1,170	18
C	1,680	26

Table 4.11-3 (cont.): Freeway Segment Level of Service Criteria

Level of Service (LOS)	Maximum Service Flow Rate (pc/h/ln)*	Maximum Density (pc/mi/ln)**
D	2,090	35
E	2,350	45
F	>2,350	>45*
Notes: Thresholds in this table are based on a Free-Flow Speed of 65 mph. + Density no reported for LOS F * Passenger cars per hour per lane ** Passenger cars per mile per lane Source: Highway Capacity Manual, 2000.		

Freeway Ramp Junctions

The determination of freeway ramp junction (merge and diverge) LOS is based on the density of vehicles within the corresponding merge or diverge influence area. The HCM establishes the influence area as 1,500 feet in advance of diverge points, and 1,500 feet extending past merge points. Table 4.11-4 presents freeway ramp junction LOS definitions.

Table 4.11-4: Freeway Ramp Merge and Diverge Level of Service Criteria

Level of Service (LOS)	Density (pc/mi/ln)*
A	≤ 10
B	>10-20
C	> 20-28
D	> 28-35
E	> 35
F	Demand exceed capacity
Notes: * Passenger cars per mile per lane Source: Highway Capacity Manual, 2000.	

The intersections and roadway segments listed below were identified for evaluation. The locations of the intersections, roadway segments, and existing lane geometries are depicted in Exhibit 4.11-1.

Study Facilities

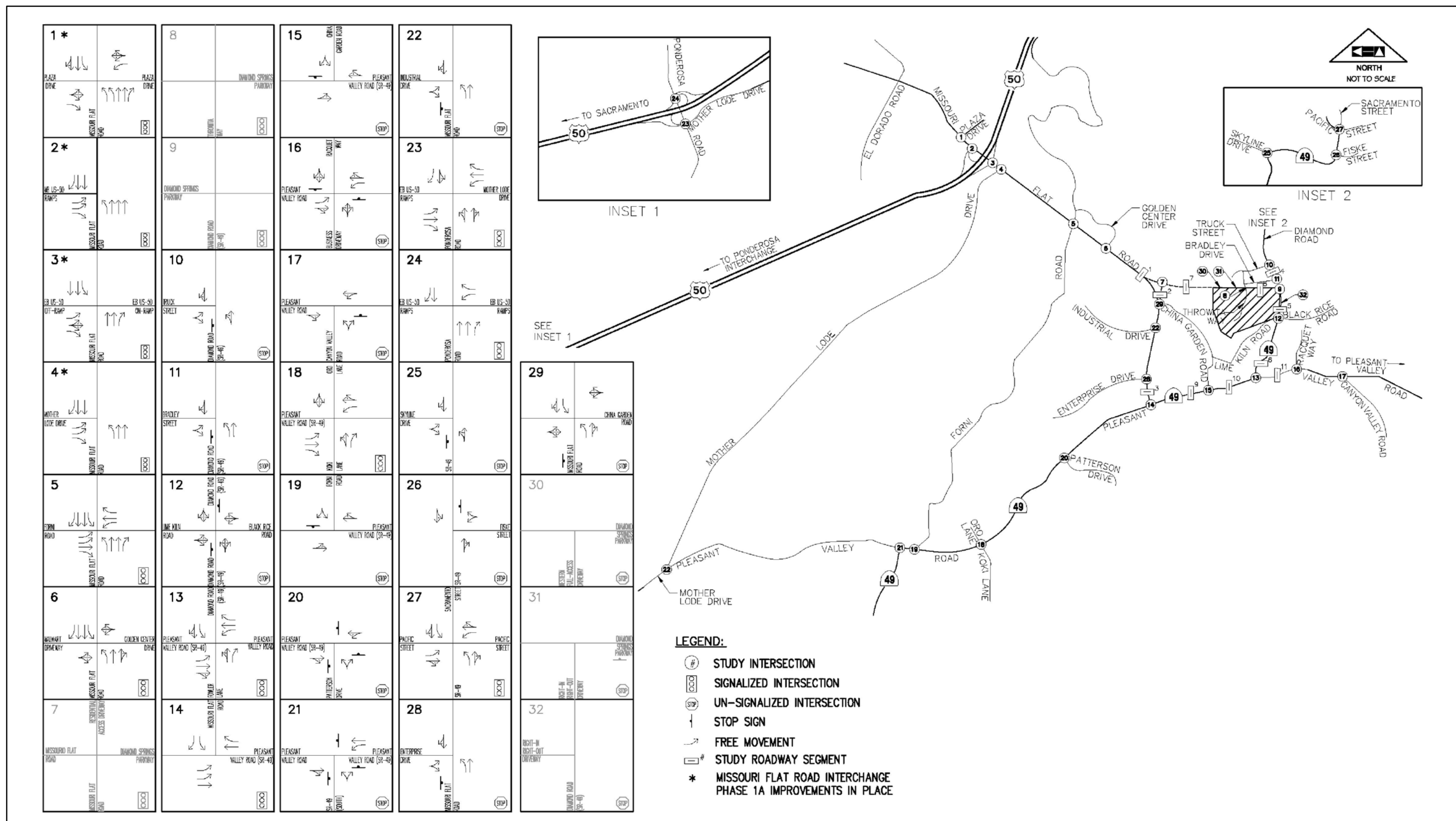
Intersections

1. Missouri Flat Road at Plaza Drive
2. Missouri Flat Road at US-50 Westbound Ramps

3. Missouri Flat Road at US-50 Eastbound Ramps
4. Missouri Flat Road at Mother Lode Drive
5. Missouri Flat Road at Forni Road
6. Missouri Flat Road at Golden Center Drive
7. Diamond Springs Parkway at Missouri Flat Road (Future)
8. Diamond Springs Parkway at Throwita Way (Future)
9. Diamond Springs Parkway at Diamond Road (SR-49) (Future)
10. Diamond Road (SR-49) at Truck Street
11. Diamond Road (SR-49) at Bradley Drive
12. Diamond Road (SR-49) at Lime Kiln Road/Black Rice Road
13. Diamond Road (SR-49) at Pleasant Valley Road (SR-49)
14. Pleasant Valley Road (SR-49) at Missouri Flat Road
15. Pleasant Valley Road (SR-49) at China Garden Road
16. Pleasant Valley Road at Racquet Way
17. Pleasant Valley Road at Canyon Valley Road
18. Pleasant Valley Road (SR-49) at Koki Lane
19. Pleasant Valley Road (SR-49) at Forni Road
20. Pleasant Valley Road (SR-49) at Patterson Road
21. Pleasant Valley Road (SR-49) at SR-49 (South)
22. Missouri Flat Road at Industrial Drive
23. Ponderosa Road at US-50 Eastbound Ramps
24. Ponderosa Road at US-50 Westbound Ramps
25. Sacramento Street (SR-49) at Skyline Drive
26. Sacramento Street (SR-49) at Fiske Street
27. Sacramento Street (SR-49) at Pacific Street (SR-49)
28. Missouri Flat Road at Enterprise Drive
29. Missouri Flat Road at China Garden Road
30. Diamond Springs Parkway at Western Right In/Right Out Site Access Driveway
31. Diamond Springs Parkway at Right In Only Site Access Driveway
32. Diamond Road (SR-49) at Site Access Driveway

Roadway Segments

1. Missouri Flat Road - Golden Center Drive to Diamond Springs Parkway
2. Missouri Flat Road - Diamond Springs Parkway to China Garden Road
3. Missouri Flat Road - China Garden Road to Pleasant Valley Road (SR-49)
4. Diamond Road (SR-49) - Truck Street to Diamond Springs Parkway
5. Diamond Road (SR-49) - Diamond Springs Parkway to Lime Kiln Road
6. Diamond Road (SR-49) - Lime Kiln Road to Pleasant Valley Road (SR-49)
7. Diamond Springs Parkway - Missouri Flat Road to Throwita Way
8. Diamond Springs Parkway - Throwita Way to Diamond Road (SR-49)



Source: Kimley-Horn and Associates, Inc 2010.

9. Pleasant Valley Road (SR-49) - Missouri Flat Road to China Garden Road
10. Pleasant Valley Road (SR-49) - China Garden Road to Diamond Road (SR-49)
11. Pleasant Valley Road - Diamond Road (SR-49) to Racquet Way

Freeway Facilities

1. Off Ramp Queuing
 - a. Eastbound US-50 at Missouri Flat Road
 - b. Westbound US-50 at Missouri Flat Road
2. Diverge Section
 - a. Eastbound US-50 Exit to Missouri Flat Road
 - b. Westbound US-50 Exit to Missouri Flat Road
3. Merge Section
 - a. Missouri Flat Road Entrance to Eastbound US-50
 - b. Missouri Flat Road Entrance to Westbound US-50
4. Freeway Mainline
 - a. US-50 East of Missouri Flat Road
 - b. US-50 West of Missouri Flat Road

Existing Level of Service

The project site is primarily served by US-50, SR-49, Missouri Flat Road, Pleasant Valley Road, and China Garden Road. The study intersections, roadway segments, and freeway segments analyzed in the Project's vicinity were found to operate from LOS A to LOS F during AM and PM peak hours. Unacceptable LOS currently occurs at several intersections and roadway segments along Pleasant Valley Road in the Diamond Springs area and at the US-50/Missouri Flat Road interchange. A detailed description of the LOS analysis is provided below.

Intersections

Existing (2010) peak-hour turning movement volumes and the traffic count data sheets are provided in Appendix L. Table 4.11-5 presents the peak-hour intersection operating conditions for this analysis scenario. As indicated in Table 4.11-5, the study intersections operate from LOS A to LOS F during the AM and PM peak hours. Analysis worksheets for this scenario are provided in Appendix L.

Table 4.11-5: Existing (2010) Intersection Levels of Service

No.	Intersection	Control Type	AM Peak-Hour		PM Peak-Hour	
			Delay (Seconds)	LOS	Delay (Seconds)	LOS
1	Missouri Flat Road/Plaza Drive	Signal	28.8	C	30.5	C
2	Missouri Flat Road/US-50 Westbound Ramps	Signal	18.0	B	20.0	C

Table 4.11-5 (cont.): Existing (2010) Intersection Levels of Service

No.	Intersection	Control Type	AM Peak-Hour		PM Peak-Hour	
			Delay (Seconds)	LOS	Delay (Seconds)	LOS
3	Missouri Flat Road/US-50 Eastbound Ramps	Signal	16.2	B	24.1	C
4	Missouri Flat Road/Mother Lode Drive	Signal	11.4	B	13.4	B
5	Missouri Flat Road/Forni Road	Signal	16.6	B	29.4	C
6	Missouri Flat Road/Golden Center Drive	Signal	13.1	B	16.6	B
7	Diamond Springs Parkway/Missouri Flat Road	Future Study Intersections				
8	Diamond Springs Parkway/Throwita Way					
9	Diamond Springs Parkway/Diamond Road (SR-49)					
10	Diamond Road (SR-49)/Truck Street	TWSC*	11.8 (EB)	B	14.6 (EB)	B
11	Diamond Road (SR-49)/Bradley Drive	TWSC*	11.6 (EB)	B	14.6 (EB)	B
12	Diamond Road (SR-49)/Lime Kiln Road/Black Rice Road	TWSC*	14.9 (WB)	C	26.9 (EB)	D
13	Diamond Road (SR-49)/Pleasant Valley Road (SR 49)	Signal	21.2	C	29.3	C
14	Pleasant Valley Road (SR-49)/Missouri Flat Road	Signal	20.8	C	53.8	D
15	Pleasant Valley Road (SR-49)/China Garden Road	TWSC*	56.0 (SB)	F	71.1 (SB)	F
16	Pleasant Valley Road/Racquet Way	TWSC*	13.1 (SB)	B	19.5 (NB)	C
17	Pleasant Valley Road/Canyon Valley Road	TWSC*	27.5 (NB)	D	24.0 (NB)	C
18	Pleasant Valley Road (SR-49)/Koki Lane	Signal	41.1	D	24.7	C
19	Pleasant Valley Road (SR-49)/Forni Road	TWSC*	254.7 (SB)	F	14.3 (SB)	B
20	Pleasant Valley Road (SR-49)/Patterson Road	AWSC	58.7	F	101.7	F
21	Pleasant Valley Road (SR-49)/SR-49 (South)	AWSC	44.9	E	56.3	F
22	Missouri Flat Road/Industrial Drive	TWSC*	15.7 (EB)	C	24.0 (EB)	C
23	Ponderosa Road/US-50 Eastbound Ramps	Signal	106.9	F	169.0	F
24	Ponderosa Road/US-50 Westbound Ramps	Signal	7.3	A	7.9	A
25	Sacramento Street (SR-49)/Skyline Drive	TWSC*	13.7 (EB)	B	16.4 (EB)	C
26	Sacramento Street (SR-49)/Fiske Street	TWSC*	12.6 (WB)	B	16.3 (WB)	C
27	Sacramento Street (SR-49)/Pacific Street (SR 49)	Signal	19.4	B	28.0	C

Table 4.11-5 (cont.): Existing (2010) Intersection Levels of Service

No.	Intersection	Control Type	AM Peak-Hour		PM Peak-Hour	
			Delay (Seconds)	LOS	Delay (Seconds)	LOS
28	Missouri Flat Road/Enterprise Drive	TWSC*	18.9 (EB)	C	42.6 (EB)	E
29	Missouri Flat Road/China Garden Road	TWSC*	23.3 (WB)	C	31.6 (WB)	D
30	Diamond Springs Parkway/Right In/Right Out Site Access Driveway	Future Study Intersections				
31	Diamond Springs Parkway/Right In Site Access Driveway					
32	Diamond Road (SR-49)/Site Access Driveway					

Notes:
* Control delay for worst minor approach (worst minor movement) for two-way stop controlled (TWSC).
Bold denotes deficient intersection operations according to County and/or Caltrans
Average delay is measured as seconds per vehicle; reserve capacity is measured as passenger cars per hour.
LOS = Level of Service
Source: KHA 2010.

Roadway Segments

As depicted in Exhibit 4.11-1, peak-hour roadway segment volumes were calculated using the peak-hour turning movements at the study intersections bordering the segments in question. Similar to the Diamond Springs Parkway Traffic Impact Analysis, this roadway segment analysis focuses on the PM peak-hour LOS, which includes afternoon hours during which high levels of traffic occur. Table 4.11-6 presents the PM peak-hour roadway segment operating conditions for this analysis scenario. Table 4.11-6 identifies that the study roadway segments operate from LOS C to LOS F during the PM peak hour. Analysis worksheets for this scenario are provided in Appendix L.

Table 4.11-6: Existing (2010) Roadway Segment Levels of Service

No.	Roadway Segment	Roadway Classification	PM Peak-Hour	
			Volume (vph)	LOS
1	Missouri Flat Road-Golden Center Drive to Diamond Springs Parkway	Four Lane Arterial, Divided+	1,271	C
2	Missouri Flat Road-Diamond Springs Parkway to China Garden Road	Two-Lane Arterial	1,595	D
3	Missouri Flat Road-China Garden Road to Pleasant Valley Road (SR-49)	Two-Lane Arterial+	1,647	D
4	Diamond Road (SR-49)-Truck Street to Diamond Springs Parkway	Minor Two-Lane Highway	754	D

Table 4.11-6 (cont.): Existing (2010) Roadway Segment Levels of Service

No.	Roadway Segment	Roadway Classification	PM Peak-Hour	
			Volume (vph)	LOS
5	Diamond Road (SR-49)-Diamond Springs Parkway to Lime Kiln Road	Future Study Facility		
6	Diamond Road (SR-49)-Lime Kiln Road to Pleasant Valley Road (SR-49)	Minor Two-Lane Highway+	697	D
7	Diamond Springs Parkway-Missouri Flat Road to Throwita Way	Future Study Facility		
8	Diamond Springs Parkway-Throwita Way to Diamond Road (SR-49)	Future Study Facility		
9	Pleasant Valley Road (SR-49)-Missouri Flat Road to China Garden Road	Two-Lane Arterial	1,833	F
10	Pleasant Valley Road (SR-49)-China Garden Road to Diamond Road (SR-49)	Minor Two-Lane Highway	1,679	E
11	Pleasant Valley Road-Diamond Road (SR-49) to Racquet Way	Two-Lane Arterial+	1,237	D
Notes: + From Diamond Springs Parkway Final Traffic Impact Analysis, KHA 2010. Bold = Substandard according to County and/or Caltrans. Source: KHA, 2010.				

Freeway Mainline Segments

Table 4.11-7 presents the peak-hour freeway mainline operating for this analysis scenario. As indicated in Table 4.11-7, the US-50 freeway segments operate from LOS B to LOS D during the AM and PM peak hours. Analysis worksheets for this scenario are provided in Appendix L.

Table 4.11-7: Existing (2010) Freeway Mainline Levels of Service

Location	AM Peak-Hour			PM Peak-Hour		
	Total Volume	Flow Rate (pc/h/ln)	LOS	Total Volume	Flow Rate (pc/h/ln)	LOS
EB US-50, East of Missouri Flat Road	2,360	1,350	C	3,540	2,026	D
WB US-50, East of Missouri Flat Road	3,540	2,026	D	2,360	1,350	C
EB US-50, West of Missouri Flat Road	1,923	1,100	B	3,240	1,854	D
WB US-50, West of Missouri Flat Road	3,053	1,747	D	2,011	1,151	B
Source: KHA, 2010.						

Freeway Merge/Diverge Segments

In addition to the previously discussed freeway mainline segments, the anticipated peak-hour ramp volumes were approximated using the peak-hour turning movements at the ramp intersections with the cross streets. Table 4.11-8 presents the peak-hour freeway ramp operating conditions in the vicinity of the Proposed Project for this analysis scenario. As indicated in Table 4.11-8, the existing US-50 freeway ramp junctions operate from LOS B to LOS D during the AM and PM peak hours. Analysis worksheets for this scenario are provided in Appendix L.

Table 4.11-8: Existing (2010) Freeway Ramp Junction Levels of Service

Location	Junction Type	AM Peak-Hour			PM Peak-Hour		
		Total Volume	Density (pc/mi/ln)	LOS	Total Volume	Density (pc/mi/ln)	LOS
EB US-50 to Missouri Flat Road	Diverge	426	21.6	C	687	34.5	D
WB US-50 to Missouri Flat Road	Diverge	945	37.3	E	886	25.7	C
Missouri Flat Road to EB US-50	Merge	863	24.7	C	987	35.2	E
Missouri Flat Road to WB US-50	Merge	458	30.0	D	537	20.6	C
Notes: Bold = Substandard according to County and/or Caltrans Source: KHA, 2010.							

Queuing

Queuing is the distance that vehicles would back up in each direction approaching an intersection. Queuing is evaluated by comparing the anticipated vehicle queues for critical movements at evaluated intersections. Queuing for eleven intersections in the Proposed Project's vicinity were evaluated in the KHA Traffic Impact Analysis.

Existing Site Access

According to the site plan for the Proposed Project, access to the site would be provided via four driveways: three along Diamond Springs Parkway and one along Diamond Road (SR-49). The main access to the project site is proposed at the Diamond Springs Parkway intersection with Throwita Way.

Parking

The parking area requirements for General Commercial (CG) zones are established by Title 17 of the County's Zoning Ordinance. The Project would include 1,279 total parking spaces. Of these, 1,162 parking spaces would be standard stalls, 90 would be compact stalls, and 27 would be compliant with the American with Disabilities (ADA) Act.

Public Transit

The El Dorado County Transit Authority (El Dorado Transit) became the major, responsible provider of general public transportation services within the greater Placerville area in July 1980. El Dorado Transit provides scheduled fixed-route bus service, dial-a-ride service, commercial bus service, taxi service, vanpools, car pools, and park-and-ride facilities. El Dorado Transit manages eight local bus routes connecting the communities of Pollock Pines, Camino, Placerville, El Dorado, Diamond Springs, Cameron Park, Shingle Springs, and Grizzly Flat. The Missouri Flat Transfer Center (MFTC) is located in front of the Walmart retail store at 4300 Missouri Flat Road, near Forni Road, approximately 0.75 mile west of the Proposed Project. The MFTC is a destination point for all El Dorado Transit local bus routes. Currently, the El Dorado Transit local bus system provides six local routes near the project area, including the Placerville Eastbound and Westbound, Pollock Pines Eastbound and Westbound, Diamond Springs, Cameron Park, Folsom Lake College, and Grizzly Flat. The routes stop at the MFTC at 60-minute intervals with the exception of the Grizzly Flat route, which stops at the MFTC twice a day.

As a part of the Diamond Springs Parkway Project, bus turnouts will be constructed at the northwest and southeast corners of the Diamond Springs Parkway and Throwita Way intersection.

Pedestrian Access

As shown in Exhibit 3-5, well-defined pedestrian routes would be located through the project site. Sidewalks would be constructed along the Project's frontages with Diamond Springs Parkway and SR-49. Patterned paving would be used to demarcate pedestrian crossing areas in front of the retail buildings. Pedestrian movement in front of the retail stores would also be protected with decorative bollards.

The El Dorado Multi-Use Trail (EDMUT) is a Class I bicycle/pedestrian trail located north of the proposed project site. The intent of the EDMUT is to open a multi-modal transportation corridor to the public for uses including bicycle, pedestrian, and equestrian trails. Ultimately, the EDMUT concept is to span El Dorado County from Sacramento County to Tahoe. This portion of the EDMUT is within the Sacramento-Placerville Transportation Corridor (SPTC) Plan, which covers 28 miles of the abandoned Southern Pacific Railroad right-of-way (ROW).

As a part of the Proposed Project, a path would be constructed between the EDMUT and the Diamond Springs Parkway along the western side of Parcel 11. Pedestrians and bicyclists would be able to exit the EDMUT via the proposed path on Parcel 11, connect to the sidewalk on the northern side of the Diamond Springs Parkway, and then use the crosswalk at the intersection of Diamond Springs Parkway and Throwita Way to access the DDRC.

Bicycles

There are three classifications of bicycle facilities:

- **Class I (bike path):** Bicycle facilities are completely separated, with paved ROW (shared with pedestrians) which excludes general motor vehicle traffic.
- **Class II (bike lane):** Bicycle facilities consist of a striped and stenciled lane for one-way bike travel on a street or highway.
- **Class III (bike route):** Bicycles share roadway with motor vehicle traffic, and facilities are only identified by signage.

The project site does not contain any existing bicycle facilities, nor are any present along the roadways abutting the project site. The El Dorado Multi Use Trail is located north of the project site and is a Class I bicycle path constructed along the Sacramento Placerville Transportation Corridor, formerly used as a railroad line. Upon completion, the Parkway will include Class II bike lanes in both directions.

4.11.3 - Regulatory Framework

State

Caltrans

Caltrans's Guide for the Preparation of Traffic Impact Studies, dated December 2002, states the following:

Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, however, Caltrans acknowledges that this may not be always feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS.

Based on the above statement, LOS D has been used as a threshold of significance for the freeway/highway operations and merge/diverge, in accordance with Caltrans LOS standards.

Local

El Dorado County General Plan

As part of the Proposed Project, a proposed General Plan Amendment and rezone would designate the site for commercial uses. As such, the Project would be required to comply with the following General Plan Policies shown in Table 4.11-9 pertaining to the new Commercial designation:

Table 4.11-9: Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
Policy TC 1b: In order to provide safe, efficient roads, all roads should incorporate the cross sectional road features set forth in Table TC-1 of the El Dorado County General Plan.	Consistent: The Proposed Project would include the construction of a new access road for the Material Recovery Facility (MRF). The access road would conform to applicable county standards for roadway construction.
Policy TC 1r: The County shall accept classified roads, as defined on Figure TC-1, into the County-maintained road system when constructed to County standards.	Consistent: The Proposed Project would include the construction of a new access road for the MRF. The access road would conform to applicable county standards for roadway construction and would be accepted into the County-maintained road system.
Goal TC-X: To coordinate planning and implementation of roadway improvements with new development to maintain adequate levels of service on County roads.	Consistent: The Proposed Project would be constructed on lands adjacent to the approved Diamond Springs Parkway after the roadway's construction. The Proposed Project would not be built until Phase 1 of the Diamond Springs Parkway is completed. Implementation of mitigation included in this Draft EIR would ensure adequate levels of service on County roads would be maintained.
<p>Policy TC-Xa: The following policies shall remain in effect until December 31, 2018 unless extended by the voters prior to that time:</p> <ol style="list-style-type: none"> 1. Traffic from single-family residential subdivision development projects of five or more parcels of land shall not result in, or worsen, Level of Service F (gridlock, stop-and-go) traffic congestion during weekday, peak-hour periods on any highway, road, interchange or intersection in the unincorporated areas of the county. 2. The County shall not add any additional segments of U.S. Highway 50, or any other roads, to the County's list of roads that are allowed to operate at Level of Service F without first getting the voters' approval or by a 4/5ths vote of the Board of Supervisors. 3. Developer-paid traffic impact fees combined with any other available funds shall fully pay for building all necessary road capacity improvements to fully offset and mitigate all direct and cumulative traffic impacts from new development upon any highways, arterial roads and their intersections during weekday, peak-hour periods in unincorporated areas of the county. 	Consistent: The Proposed Project does not include residential development. The Proposed Project would pay traffic impact fees or fully fund traffic improvements as outlined by mitigation included in Section 4.11, Transportation.

Table 4.11-9 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
<p>Policy TC Xd: Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions except as specified in Table TC-2. The volume to capacity ratio of the roadway segments listed in Tables TC-2 shall not exceed the ratio specified in that table. Level of Service will be as defined in the latest edition of the Highway Capacity Manual (Transportation Research Board, National Research Council) and calculated using the methodologies contained in that manual. Analysis periods shall be based on the professional judgment of the Department of Transportation which shall consider periods including, but not limited to, Weekday Average Daily Traffic (ADT), AM Peak-Hour, and PM Peak-Hour traffic volumes.</p>	<p>Consistent: The Proposed Project is located within the El Dorado/Diamond Springs Community Region, in which, roads should operate at LOS E or better. The LOS E threshold, methodologies contained in the latest edition of the Highway Capacity Manual, and appropriate analysis periods were utilized in the Traffic Impact Analysis prepared by KHA (Appendix L) and incorporated into this Draft EIR. Mitigation has been proposed for instances where the Proposed Project results in an unacceptable LOS or adds to roadways that already operating at an unacceptable LOS.</p>
<p>Policy TC-Xf: At the time of approval of a tentative map for a single family residential subdivision of five or more parcels that worsens (defined as a project that triggers Policy TC-Xe [A] or [B] or [C]) traffic on the County road system, the County shall do one of the following: (1) condition the project to construct all road improvements necessary to maintain or attain Level of Service standards detailed in this Transportation and Circulation Element based on existing traffic plus traffic generated from the development plus forecasted traffic growth at 10-years from project submittal; or (2) ensure the commencement of construction of the necessary road improvements are included in the County's 10-year CIP.</p> <p>For all other discretionary projects that worsen (defined as a project that triggers Policy TC-Xe [A] or [B] or [C]) traffic on the County road system, the County shall do one of the following: (1) condition the project to construct all road improvements necessary to maintain or attain Level of Service standards detailed in this Transportation and Circulation Element; or (2) ensure the construction of the necessary road improvements are included in the County's 20-year CIP.</p>	<p>Consistent: The Proposed Project does not include residential development. The Proposed Project would pay traffic impact fees or fully fund traffic improvements as outlined by mitigation included in Section 4.11, Transportation.</p>
<p>Policy TC-Xg: Each development project shall dedicate right-of-way and construct or fund improvements necessary to mitigate the effects of traffic from the project. The County shall require an analysis of impacts of traffic from the</p>	<p>Consistent: The Project has been designed to include the future right-of-ways required for the Diamond Springs Parkway and Diamond Road (SR-49). A Traffic Impact Analysis has been prepared for the Proposed Project, dated July 21, 2010. The Proposed Project</p>

Table 4.11-9 (cont.): Consistency with Applicable 2004 General Plan Policies

General Plan Policy	Consistency Determination
development project, including impacts from truck traffic, and require dedication of needed right-of-way and construction of road facilities as a condition of the development. For road improvements that provide significant benefit to other development, the County may allow a project to fund its fair share of improvement costs through traffic impact fees or receive reimbursement from impact fees for construction of improvements beyond the project's fair share. The amount and timing of reimbursements shall be determined by the County.	would pay traffic impact fees or fully fund traffic improvements as outlined by mitigation included in Section 4.11, Transportation.
Policy TC 2f: The County shall work with the El Dorado Transit Authority and support the provision of paratransit services and facilities for elderly and disabled residents, and those of limited means, which shall include bus shelters, bus stops, and ramps at stops.	Consistent: The Proposed Project would be served by the bus stops located at the future Diamond Springs Parkway and Throwita Way intersection.
Policy TC-4a: The County shall implement a system of recreational, commuter, and inter-community bicycle routes in accordance with the County's Bikeway Master Plan. The Plan should designate bikeways connecting residential areas to retail, entertainment, and employment centers and near major traffic generators such as recreational areas, parks of regional significance, schools, and other major public facilities, and along recreational routes.	Consistent: The Proposed Project would provide non-vehicular facilities within the site that would connect with offsite pedestrian and bicycle facilities.
Policy TC 4h: Where hiking and equestrian trails abut public roads, they should be separated from the travel lanes whenever possible by curbs and barriers (such as fences or rails), landscape buffering, and spatial distance. Existing public corridors such as power transmission line easements, railroad rights-of-way, irrigation district easements, and roads should be put to multiple use for trails, where possible.	Consistent: The Proposed Project would provide non-vehicular facilities within the site and along the project site's frontages that would connect with offsite pedestrian and bicycle trails including the El Dorado Multi Use Trail.
Source: El Dorado County General Plan, 2004; MBA, 2010.	

Measure Y

Measure Y was an item passed by the voters of El Dorado County in November 1998. The measure specified several new General Plan policies related to traffic impact mitigation. The Board of Supervisors incorporated the new policies into the County's General Plan when they adopted it in 2004. Those policies are listed as Policy TC-Xa through i, and are included in Table 4.11-9 as applicable to the Proposed Project. In November 2008, the voters approved a new version of Measure Y (also listed as Measure Y on the ballot) that modified some of the policies. The Board of

Supervisors also approved a companion General Plan Amendment revising several related policies. Table 4.11-9 reflects the revised policies. As indicated by General Plan Policy TC-Xg development projects must construct or fund improvements necessary to mitigate the effects of traffic from the Project. However, for road improvements that provide significant benefit to other development, the County may allow a project to fund its fair share of improvement costs through traffic impact fees or receive reimbursement from impact fees for construction of improvements beyond the Project's fair share. The amount and timing of reimbursements shall be determined by the County.

Traffic Impact Mitigation Fee Program

The fees included in the Traffic Impact Mitigation Fee Program by the El Dorado County Board of Supervisors have been determined based on the estimated costs of building the needed road improvements for the planned growth forecasted in the 2004 General Plan. Traffic impact mitigation fees pay for major roadway improvements as listed in the program's current Resolution as Exhibit B and can be found at <http://www.edcgov.us/DOT/TIMdocs/Resolution070-2010.pdf>.

El Dorado County Regional Transportation Plan and Capital Improvement Program (CIP)

The El Dorado County Transportation Commission (EDCTC) is the Regional Transportation Planning Agency (RTPA) for El Dorado County (excluding the Tahoe Basin) and is responsible for the preparation of the El Dorado County Regional Transportation Plan (RTP). The El Dorado County 2025 RTP was developed by the EDCTC to document the policy direction, actions and funding recommendations intended to meet El Dorado County's short- and long-range transportation needs over the next 20 years. The RTP is designed to be a blueprint for the systematic development of a balanced, comprehensive, multi-modal transportation system. In general, RTPs are developed to provide a clear vision of the regional transportation goals, objectives, and policies, complemented by short-term and long-term strategies for implementation. The 2025 RTP also serves as the El Dorado County portion of the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan (MTP). The 2025 RTP identifies the County's 10-year Capital Improvement Program (CIP) in its regional road network short-term action plan. The Diamond Springs Parkway is included in SACOG's MTP.

El Dorado County Bicycle Transportation Plan

The El Dorado County Bicycle Transportation Plan (EDCTC 2005) provides a blueprint for the development of a bicycle transportation system on the western slope of El Dorado County. The 2005 plan is in compliance with Caltrans's Streets and Highways Code (Sections 890-894.2), enabling the County to be eligible for State Bicycle Transportation Account (BTA) funds. The Bicycle Transportation Plan addresses bicycle transportation issues and goals within El Dorado County, including those related to bicycle commuting, safety and education, implementation and maintenance of bicycle facilities, the integration of bicycle and pedestrian facilities in land use development, integration of bicycle facilities with multi-modal transportation connections, funding, and bicycle facility connectivity. The Bicycle Transportation Plan also identifies existing and proposed/planned

future bicycle facilities within the County. Within the project area, the Bicycle Transportation Plan identifies proposed Class II Bike Lanes along the Parkway that connect with the adjacent EDMUT Class I Bike Path and Class II Bike Lanes along Missouri Flat Road.

Missouri Flat Master Circulation and Funding Plan

The Proposed Project is located in the Missouri Flat Area Master Circulation and Funding Plan (MC&FP) area. The MC&FP was prepared and adopted by the County in order to provide a comprehensive and coordinated approach to address both existing traffic congestion and the issue of providing capacity for future development in the Missouri Flat Area (Economic & Planning Systems 1998). The MC&FP established a “master circulation and funding plan” for roadway improvements within the Missouri Flat Area which would be funded through a variety of sources, including fees and taxes generated by retail development in the Missouri Flat Area. The Proposed Project is located within the boundaries of the MC&FP.

In 1998, EDAW, under contract to DOT, prepared the Missouri Flat Area Master Circulation and Funding Plan (MC&FP) Program EIR (EDAW 1998). The MC&FP EIR contemplated a total of 1,700,000 square feet of retail development to be constructed between 1998 and 2015 in two separate phases on lands designated as commercial. The Proposed Project would be considered part of the second phase “Future MC&FP Retail.” Under the MC&FP, all new developments in the Missouri Flat Area are obligated to pay a proportional share of improvement costs in adherence with DOT’s current Capital Improvement Plan (CIP) and the County’s Traffic Impact Mitigation (TIM) Fee Program.

The Sacramento-Placerville Transportation Corridor (SPTC) Master Plan

The SPTC Master Plan, dated February 25, 2003, considers the feasibility of the corridor’s interim use, and develops a set of guiding principles to use in the development of specific projects that are consistent with the Master Plan. “Three types of trails are envisioned for the corridor: natural or hiking/bike trails; improved trails; and, paved trails. Additional guidelines specific to the development of each trail type are identified in the respective sections [in the Master Plan]” (SPTC Master Plan, Section V. Design Guidelines). The Master Plan identifies configurations for road crossing design of the trail and alternatives to consider in light of traffic volumes, and vertical and horizontal sight distances, including guidelines for the construction of trails on banks and above channels.

El Dorado County Ordinance Code

Off-Street Parking and Loading (Chapter 17.18.000)

As indicated in the El Dorado County Ordinance Code, regional shopping centers are required to provide onsite parking spaces for every 300 square feet of gross floor area (3.33 spaces per 1,000 square feet).

El Dorado County Design and Improvement Standards Manual (DISM)

The El Dorado County Design and Improvement Standards Manual outlines requirements for design and improvements to lands (such as water, sewer, traffic, noise, drainage, fire protection, power supply, erosion control, and encroachments) within the County's jurisdiction.

4.11.4 - Methodology

KHA prepared a Traffic Impact Analysis, dated July 21, 2010, that evaluated the Proposed Project's impacts on intersection and roadway operations. The study included counts of traffic volumes at intersections to identify existing conditions and modeling projections of future conditions under near-term and long-term scenarios. To provide a conservative analysis, the Traffic Impact Analysis was based on a 290,015-square-foot retail center, an increase of 9,500 square feet compared with the Project as proposed. In addition, KHA prepared two supplemental traffic studies. The first, dated December 10, 2010, analyzed weekday Cumulative (year 2025) AM and PM peak-hour operations for the US-50 interchange with Missouri Flat Road. The second, dated June 6, 2011 evaluate weekday, near-term (2015), and cumulative (2025) AM and PM peak-hour operations resulting from revised traffic control for the Diamond Road (SR-49) intersection with Lime Kiln Road/Black Rice Road. The key aspects of the Traffic Impact Analysis and the supplemental studies are discussed below.

Level of Service Analysis

Intersection LOS for this study was determined using methods defined in the Highway Capacity Manual, 2000 (HCM) using appropriate traffic analysis software.

Project Trip Generation

The number of trips anticipated to be generated by the Proposed Project were derived using data included in the Trip Generation, 7th Edition, and the Trip Generation Handbook, Second Edition, both published by the Institute of Transportation Engineers (ITE). The anticipated trip generation for this Project is shown in Table 4.11-10.

Table 4.11-10: Proposed Project Trip Generation

ITE Land Use Code	Unit	Trip Generation Rate										
		Daily	AM Peak-Hour						PM Peak-Hour			
			Total	In		Out		Total	In		Out	
				%	Trips	%	Trips		%	Trips	%	Trips
820 - Shopping Center	290,015 square feet	13,568	296	61	181	39	116	1264	48	607	52	657
Pass-By Trip Reduction	30%	-3,464	—	—	—	—	—	-294	—	—	—	—
Net New Trips	—	10,104	296	—	181	—	116	970	—	435	—	535
Source: KHA, 2010.												

As shown in Table 4.11-10, the Proposed Project is estimated to generate 10,104 total new daily trips, with 296 new trips occurring during the AM peak hour, and 970 new trips occurring during the PM peak hour. The project site is currently designated for industrial uses, and a portion of the site is occupied by the adjacent El Dorado Material Recovery Facility's (MRF) access road (Throwita Way). As a part of project implementation, the MRF's access will change from Throwita Way to Diamond Road (SR-49) via Lime Kiln Road, with traffic signal control to be provided at the Diamond Road (SR-49) intersection with Lime Kiln Road. This reassignment of the MRF site trips (using November 29, 2007 traffic count data) is depicted in Exhibit 4.11-2.

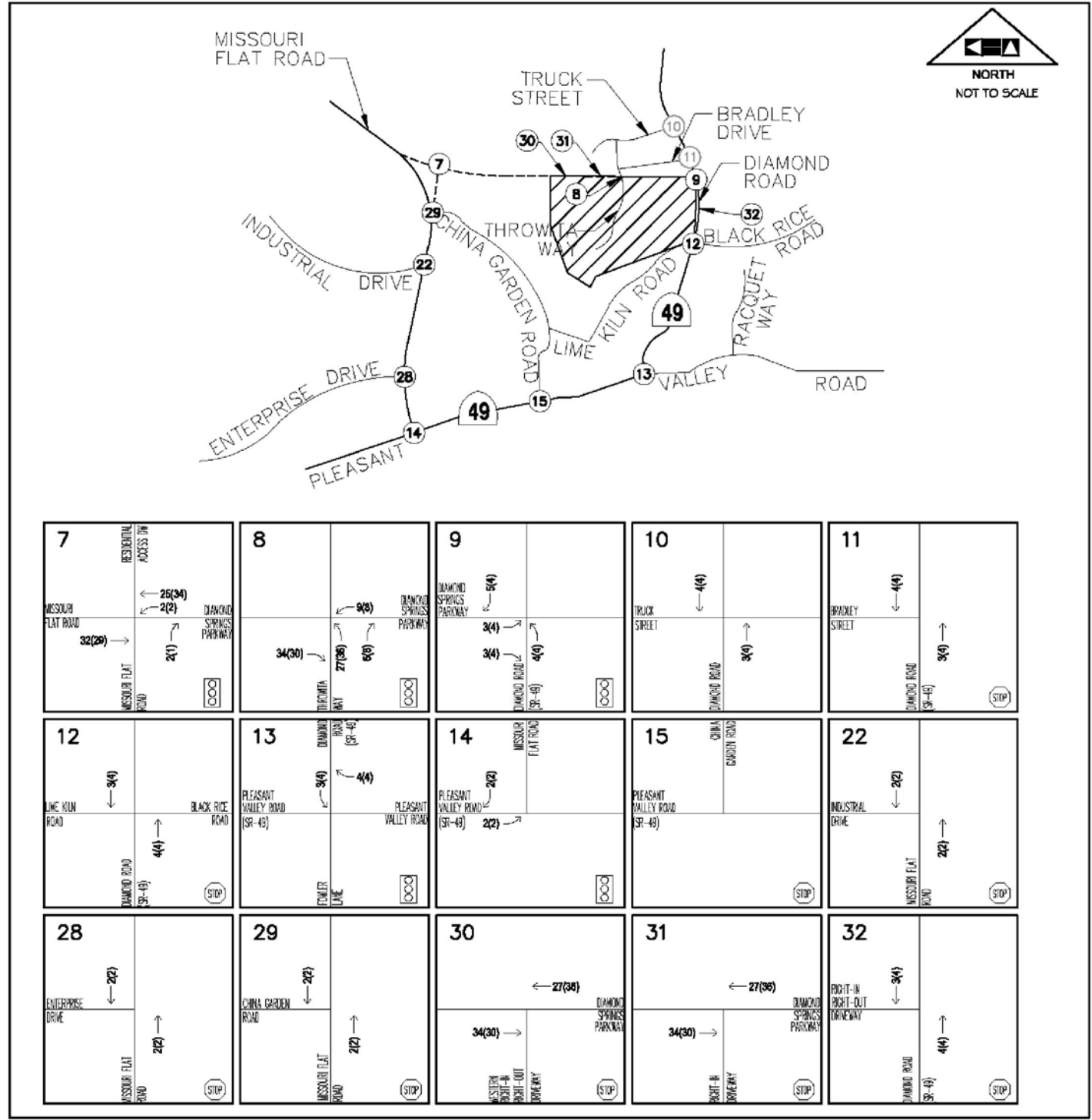
Analysis Assumptions and Scenarios

Based on the assumptions presented in the Traffic Impact Analysis and County requirements, the LOS analysis was conducted for the Study Facilities (as previously discussed under Section 4.11.2) for the following scenarios:

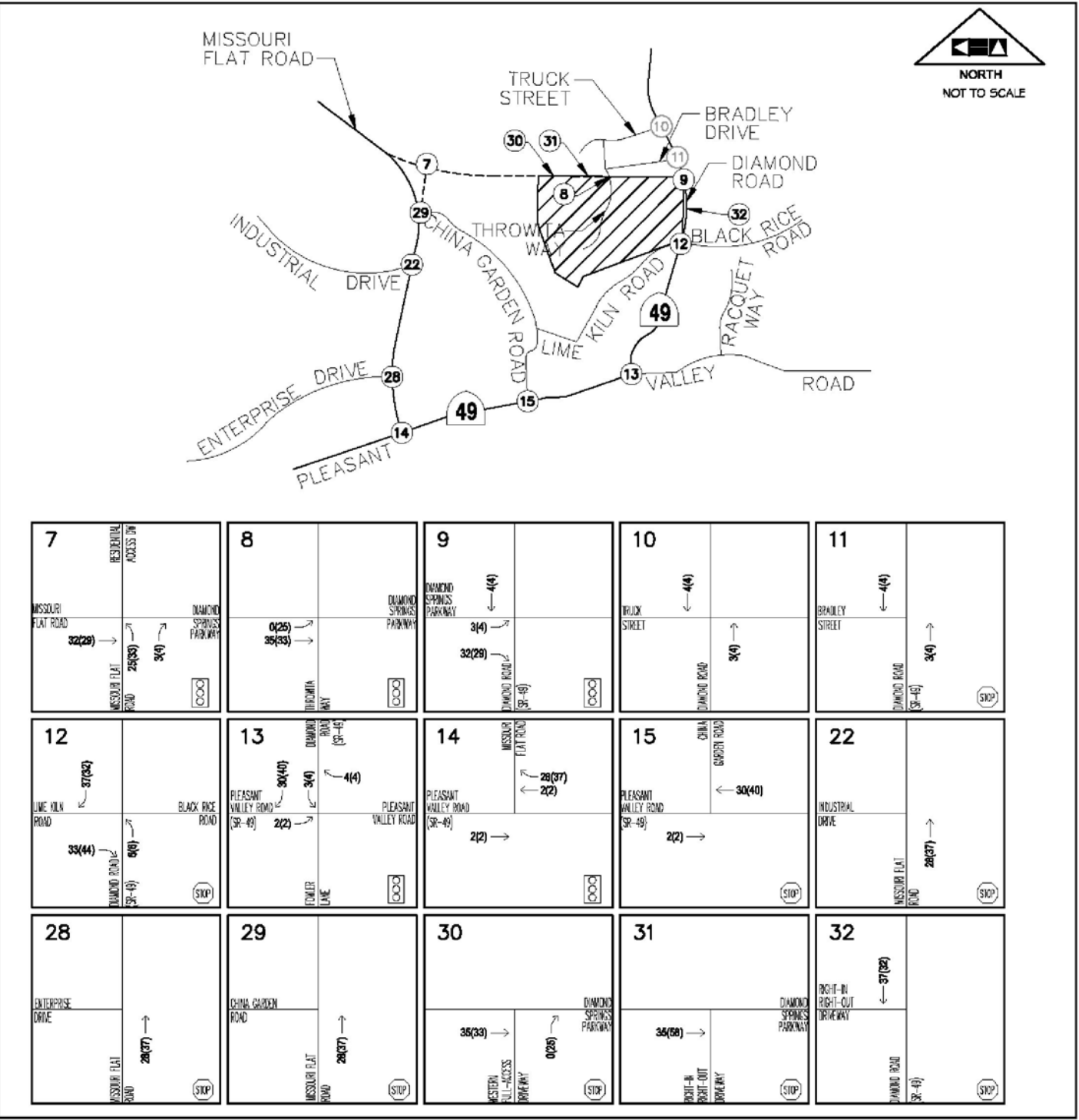
- Existing (2010) Conditions
- Existing Plus Approved Projects (2015) Conditions (including Phase 1 Diamond Springs Parkway improvements)
- Existing Plus Approved Projects (2015) Plus Proposed Project Conditions (including Phase 1 Diamond Springs Parkway improvements)
- Cumulative (2025) Conditions (including Phase 1 Diamond Springs Parkway improvements)
- Cumulative (2025 Plus Proposed Project Conditions (including Phase 1 Diamond Springs Parkway improvements)

Under the Existing Plus Approved Projects (2015) Conditions and the Existing Plus Approved Projects (2015) Plus Proposed Project Conditions (the second and third bullet points previously listed), it is assumed that implementation of Phase 1 of the Diamond Springs Parkway Project with its required year 2010 mitigations for both LOS and queuing are complete (refer to Diamond Springs Parkway Project Final EIR). These improvements are generally described as including a two-lane Parkway, a two-lane Diamond Road (SR-49), and an unsignalized Diamond Road (SR-49)/Lime Kiln intersection with access restrictions. In addition, under the Existing Plus Approved Projects (2015) Plus Proposed Project Conditions (the third bullet point previously listed), traffic volumes were adjusted to account for the relocation of the MRF driveway from Throwita Way to Lime Kiln Road (signalized), and the associated redistribution of MRF trips.

Under the Cumulative (2025) Conditions (the fourth bullet point previously listed), Phase 1B of the US-50/Missouri Flat Road Interchange is assumed to remain in place. This scenario also assumes the Diamond Springs Parkway with year 2020 mitigations for LOS and queuing have been implemented.



MRF TRIPS WITHOUT PROPOSED PROJECT
(EXISTING DISTRIBUTION)



RELOCATED MRF TRIPS WITH ADDITION OF PROPOSED PROJECT
(RELOCATED DISTRIBUTION)

Note: MRF trips per November 29, 2007 traffic count data.

Source: Kimley-Horn and Associates, Inc 2010.

These improvements are the same as DSP 2010 mitigations (as described above) and include a two-lane Parkway, a two-lane Diamond Road (SR-49), and an unsignalized SR-49/Lime Kiln with access restrictions.

Results of the study facilities LOS analysis for each of the above scenarios are discussed under Section 4.11.6, Project Impacts and Mitigation Measures. Conclusions regarding each scenario are discussed at the end of each impact analysis.

Analysis of Other Transportation Issues

This Draft EIR evaluates the Proposed Project impacts on the following additional transportation issue areas: parking, emergency response, public transit, bicycles, pedestrians, and construction traffic. The evaluation included a review of the Caltrans requirements and the County Municipal Code requirements for emergency access and an analysis of El Dorado County Transit bus service to the project site, as well as bicycle and pedestrian mobility.

4.11.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, transportation impacts resulting from the implementation of the Proposed Project would be considered significant if the Project would:

- a.) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?
- b.) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?
- c.) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? (Refer to Section 6.5, Other CEQA Required Sections)
- d.) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- e.) Result in inadequate emergency access?
- f.) Result in inadequate parking capacity?
- g.) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?

Standards of Significance

Project impacts were determined by comparing conditions with the Proposed Project to those without the Project. Impacts for intersections are created when traffic from the Proposed Project forces the

Level of Service (LOS) to fall below the thresholds described below. Intersections that are not part of the Missouri Flat Road interchange at US-50 and are not on SR-49 are within County jurisdiction and are subject to County LOS requirements. Intersections that are on SR-49 or are within the Missouri Flat Road interchange at US-50 are subject to Caltrans's jurisdiction and fall under Caltrans LOS requirements. Roadway segments, including those on SR-49, are subject to County LOS requirements. SR-49 is subject to both County and Caltrans requirements.

The County's LOS standards specify the following:

- "Level of Service (LOS) for County-maintained roads and State highways within the unincorporated areas of the County shall not be worse than LOS E in the Community Regions" (El Dorado County General Plan Policy TC-Xd).

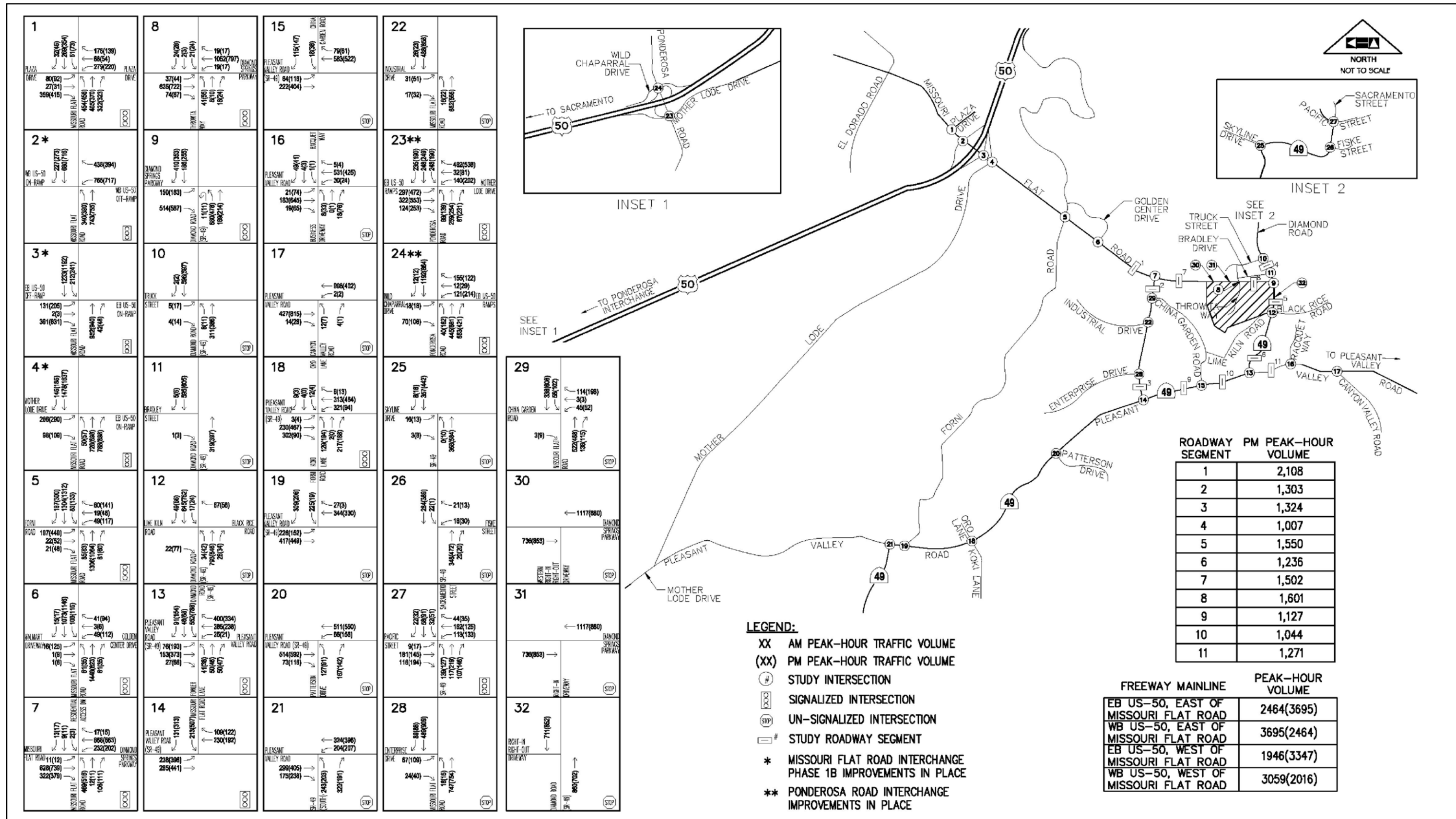
The Proposed Project is located within the Diamond Springs Community Region.

- "If a project causes the peak-hour level of service . . . on a County road or State highway that would otherwise meet the County standards (without the project) to exceed the [given] values, then the impact shall be considered significant."
- "If any county road or state highway fails to meet the [given] standards for peak-hour level of service . . . under existing conditions, and the project will 'significantly worsen' conditions on the road or highway, then the impact shall be considered significant." According to General Plan Policy TC-Xe, "significantly worsen" is defined as "a 2 percent increase in traffic during the a.m. peak-hour, p.m. peak-hour, or daily, or the addition of 100 or more daily trips, or the addition of 10 or more trips during the a.m. peak-hour or the p.m. peak-hour."

The Caltrans District 3 standard of significance was applied to intersections on SR-49 and at the Missouri Flat Road Interchange. The following LOS requirement was used for Caltrans facilities:

- "The District 3 standard for average delay at signalized intersections, in most areas, is LOS D on an hourly basis, or LOS E for the peak 15 minutes. For all-way stop intersections and, this standard should be used for each approach. Queue lengths on each approach must also be considered for all intersection analysis."

In summary, LOS E will be used for all study intersections (County and Caltrans) and all County roadway segments. LOS D will be applied to all SR-49 roadway segments. Finally, LOS D will be used as the significance threshold for the US-50 mainline, and LOS C will be used for Merge/Diverge Segments.



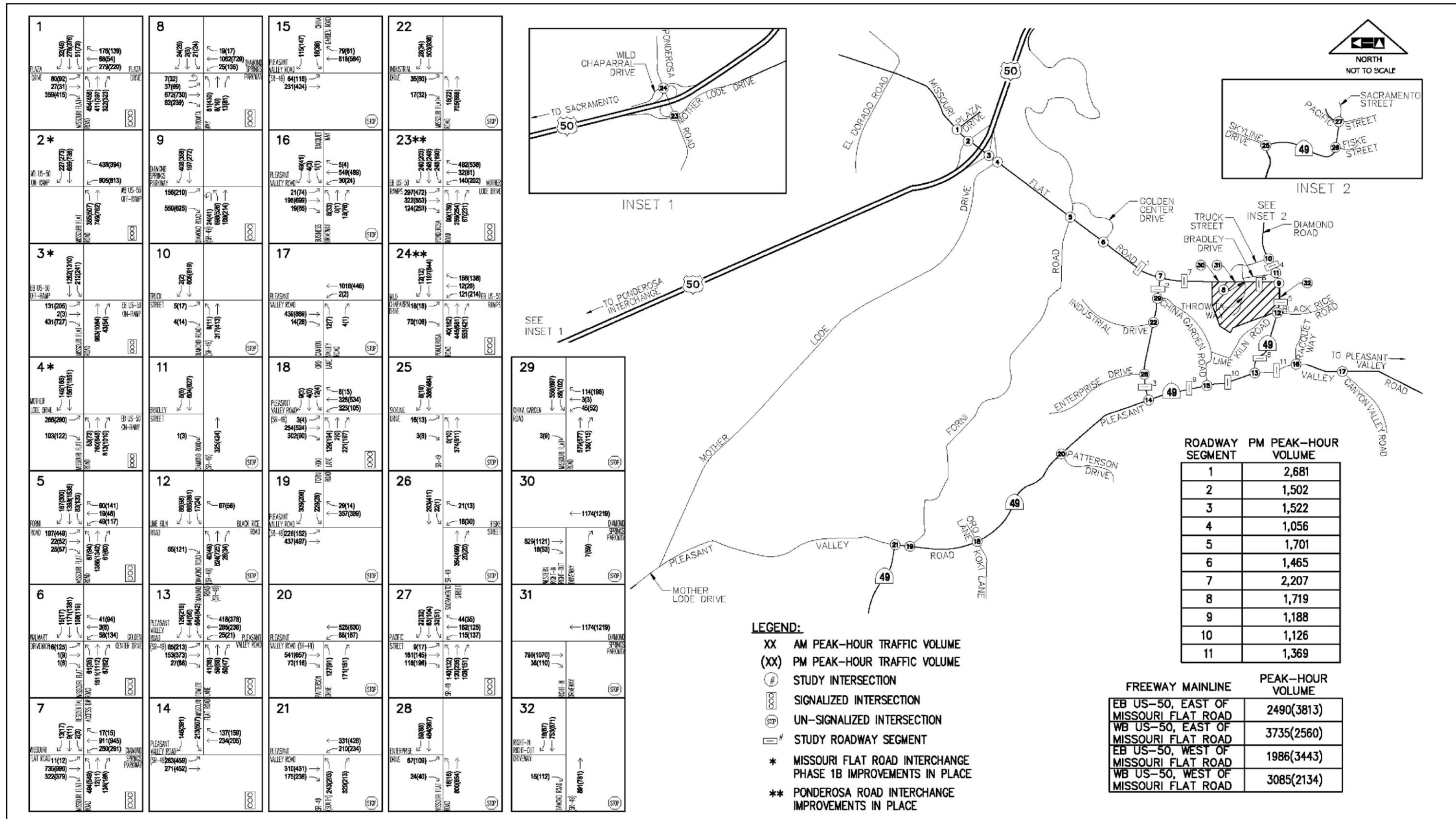
Source: Kimley-Horn and Associates, Inc 2010.



Michael Brandman Associates

33370001• 11/2011 | 4.11-3 Existing Plus Approved (2015) Peak-Hour.pdf

Exhibit 4.11-3 Existing Plus Approved Projects (2015) Peak-Hour Traffic Volumes



Source: Kimley-Horn and Associates, Inc 2010.



Michael Brandman Associates

33370001• 11/2011 | 4.11-4 Existing Plus Approved (2015) Plus Proposed.pdf

Exhibit 4.11-4 Existing Plus Approved Projects (2015) Plus Proposed Project Peak-Hour Traffic Volumes

4.11.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate. Included are construction (short-term) and operational (long-term) impacts of onsite improvements, as well as construction impacts of offsite improvements.

Existing Plus Approved Projects (2015) Plus Project Intersection and Roadway Conditions

Impact TRANS-1: The Project has the potential to result in an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

Impact Analysis

Onsite Improvements

This impact analysis evaluates the impacts of the Proposed Project on existing plus approved projects (2015) plus project intersection and roadway operations. Using the existing plus approved projects (2015) peak-hour traffic volumes (Exhibit 4.11-3), levels of service were determined at the study facilities with the addition of the Proposed Project (Exhibit 4.11-4). As previously discussed, this scenario assumes that the Parkway and Diamond Road (SR-49) are two-lane roadways.

As a condition of approval, the Project applicant will be responsible for the addition of a traffic signal at Diamond Road (SR-49) and Lime Kiln Road. In addition, traffic volumes were adjusted to account for the relocation of the MRF driveway from Throwita Way to Lime Kiln Road (Exhibit 4.11-2).

Intersections

Table 4.11-11 provides a summary of the intersection operating conditions for this analysis scenario.

Table 4.11-11: Existing Plus Approved Projects (2015) Plus Proposed Project Intersection Levels of Service

No.	Intersection	Control Type	Existing Plus Approved Projects (2015)				Existing Plus Approved Projects (2015) Plus Proposed Project			
			AM Peak-Hour		PM Peak-hour		AM Peak-Hour		PM Peak-hour	
			Delay (Seconds)	LOS	Delay (Seconds)	LOS	Delay (Seconds)	LOS	Delay (Seconds)	LOS
1	Missouri Flat Road/Plaza Drive	Signal	36.9	D	44.0	D	36.4	D	42.7	D
2	Missouri Flat Road/US-50 Westbound Ramps	Signal	22.2	C	24.4	C	22.9	C	27.3	C
3	Missouri Flat Road/US-50 Eastbound Ramps	Signal	18.4	B	28.7	C	19.8	B	34.3	C
4	Missouri Flat Road/Mother Lode Drive	Signal	13.1	B	18.0	B	13.8	B	24.5	C
5	Missouri Flat Road/Forni Road	Signal	23.1	C	36.4	D	25.0	C	63.5	E
6	Missouri Flat Road/Golden Center Drive	Signal	16.5	B	19.5	B	18.3	B	28.4	C
7	Diamond Springs Parkway/Missouri Flat Road	Signal	24.6	C	32.4	C	28.9	C	37.3	D
8	Diamond Springs Parkway/Throwita Way	Signal	14.2	B	17.7	B	15.6	B	69.2	E
9	Diamond Springs Parkway/Diamond Road (SR-49)	Signal	58.7	E	69.1	E	60.8	E	73.1	E
10	Diamond Road (SR-49)/Truck Street	TWSC*	16.8 (EB)	C	19.1 (EB)	C	17.0 (EB)	C	20.2 (EB)	C
11	Diamond Road (SR-49)/Bradley Drive	TWSC*	12.9 (EB)	B	13.1 (EB)	B	13.0 (EB)	B	13.4 (EB)	B
12	Diamond Road (SR-49)/Lime Kiln Road/Black Rice Road	TWSC* Signal	18.8 (WB)	D	19.4 (EB)	C	25.3	C	69.9	E
13	Diamond Road (SR-49)/Pleasant Valley Road (SR-49)	Signal	19.9	B	28.7	C	21.1	C	36.1	D
14	Pleasant Valley Road (SR-49)/Missouri Flat Road	Signal	10.2	B	19.0	B	10.3	B	21.1	C
15	Pleasant Valley Road (SR-49)/China Garden Road	TWSC*	19.7 (SB)	C	31.6 (SB)	D	18.5 (SB)	C	20.3 (SB)	C
16	Pleasant Valley Road/Racquet Way	TWSC*	13.3 (SB)	B	21.8 (NB)	C	13.5 (SB)	B	24.4 (NB)	C
17	Pleasant Valley Road/Canyon Valley Road	TWSC*	33.0 (NB)	D	27.2 (NB)	D	34.4 (NB)	D	30.9 (NB)	D
18	Pleasant Valley Road (SR-49)/Koki Lane	Signal	46.6	D	25.5	C	46.8	D	29.6	C

Table 4.11-11 (cont.): Existing Plus Approved Projects (2015) Plus Proposed Project Intersection Levels of Service

No.	Intersection	Control Type	Existing Plus Approved Projects (2015)				Existing Plus Approved Projects (2015) Plus Proposed Project			
			AM Peak-Hour		PM Peak-hour		AM Peak-Hour		PM Peak-hour	
			Delay (Seconds)	LOS	Delay (Seconds)	LOS	Delay (Seconds)	LOS	Delay (Seconds)	LOS
19	Pleasant Valley Road (SR-49)/Forni Road	TWSC*	718.8 (SB)	F	17.2 (SB)	C	793.8(SB)	F	24.1 (SB)	C
20	Pleasant Valley Road (SR-49)/Patterson Road	AWSC	79.4	F	137.9	F	93.3	F	194.7	F
21	Pleasant Valley Road (SR-49)/SR-49 (South)	AWSC	70.5	F	87.4	F	73.0	F	107.2	F
22	Missouri Flat Road/Industrial Drive	TWSC*	14.9 (EB)	B	22.1 (EB)	C	15.3(EB)	C	25.9 (EB)	D
23	Ponderosa Road/US-50 Eastbound Ramps	Signal	30.6	D	78.8	E	30.5	C	78.5	E
24	Ponderosa Road/US-50 Westbound Ramps	Signal	16.8	B	26.1	C	16.9	B	25.9	C
25	Sacramento Street (SR-49)/Skyline Drive	TWSC*	15.1 (EB)	B	19.2(EB)	C	15.4(EB)	C	20.3 (EB)	C
26	Sacramento Street (SR-49)/Fiske Street	TWSC*	13.1 (WB)	B	17.8(WB)	C	13.2(WB)	B	18.9 (WB)	C
27	Sacramento Street (SR-49)/Pacific Street (SR-49)	Signal	21.2	C	37.0	D	22.1	C	39.0	D
28	Missouri Flat Road/Enterprise Drive	TWSC*	18.0 (EB)	C	39.8 (EB)	E	18.3(EB)	C	48.0 (EB)	E
29	Missouri Flat Road/China Garden Road	TWSC*	19.3 (WB)	C	29.6 (WB)	D	18.5(WB)	C	25.5 (WB)	D
30	Diamond Springs Parkway/Right In/Right Out Site Access Driveway	TWSC*	Future Study Facilities				18.4(NB)	C	31.7 (NB)	D
31	Diamond Springs Parkway/Right In Site Access Driveway	TWSC*					0.0(EB)	A	0.0 (EB)	A
32	Diamond Road (SR-49)/Site Access Driveway	TWSC*					16.9(EB)	C	31.9 (EB)	D

Notes:

* Control delay for worst minor approach (worst minor movement) for two-way stop controlled (TWSC).

Bold denotes deficient intersection operations according to County and/or Caltrans

Average delay is measured as seconds per vehicle; reserve capacity is measured as passenger cars per hour.

LOS = Level of Service

Source: KHA 2010, 2011.

As shown in Table 4.11-11, the majority of the study intersections would operate at an acceptable LOS with the addition of the Proposed Project. However, the following intersections exceed the thresholds described under Standards of Significance as a result of the Proposed Project.

Intersection 19 - Pleasant Valley Road (SR-49) and Forni Road

This intersection currently operates at an unacceptable LOS F during the AM peak hour without the Proposed Project. Addition of the Proposed Project would contribute more than 10 peak-hour trips during the AM peak hour, thereby worsening the already unacceptable LOS. Accordingly, this is a potentially significant impact. The significant impact at this intersection during the AM peak hour can be mitigated with the addition of an eastbound left-turn lane and traffic signal control. Because of the close proximity, this intersection will be coordinated with the proposed signalized Pleasant Valley Road (SR-49) intersection with SR-49 (South). As shown in Table 4.11-12, this mitigation results in the intersection operating at an acceptable LOS D during the AM peak hour.

Improvements to this intersection are not currently contained in El Dorado County's 10-Year Capital Improvement Plan and are not included in the County fee program. Accordingly, Mitigation Measure TRANS-1a would require the Project applicant to be responsible for improvements to this intersection to ensure impacts would be reduced to a less than significant level.

Intersection 20 - Pleasant Valley Road (SR-49) and Patterson Road

This intersection currently operates at an unacceptable LOS F during the AM and PM peak hours without the Proposed Project. Addition of the Proposed Project would contribute more than 10 AM and PM peak-hour trips, thereby worsening the already unacceptable LOS. Accordingly, this is a potentially significant impact. The significant impact at this intersection during the AM and PM peak hours can be mitigated with the addition of a westbound left-turn lane and traffic signal control. As shown in Table 4.11-12, this mitigation results in the intersection operating at an acceptable LOS C during the AM and PM peak hours.

Signalization of this intersection is included in the County's 10-Year Capital Improvement Plan (CIP# 73320) and is included in the County fee program. Mitigation Measure TRANS-1b would require the Project applicant to ensure improvements to this intersection would reduce impacts to a less than significant level; application would be eligible for reimbursement for this improvement.

Intersection 21 - Pleasant Valley Road (SR-49) and SR-49 (South)

This intersection currently operates at an unacceptable LOS F during the AM and PM peak hours without the Proposed Project. Addition of the Proposed Project would contribute more than 10 AM and PM peak-hour trips, thereby worsening the already unacceptable LOS. Accordingly, this is a potentially significant impact. The significant impact at this intersection during the AM and PM peak hours can be mitigated with the addition of traffic signal control. Because of the close proximity, this intersection will be coordinated with the proposed signalized Pleasant Valley Road (SR-49)

intersection with Forni Road. As shown in Table 4.11-12, this mitigation results in the intersection operating at an acceptable LOS E during the AM and PM peak hours.

This improvement is not currently contained in El Dorado County's 10-Year Capital Improvement Plan and is not a part of the County fee program. Accordingly, Mitigation Measure TRANS-1c would require the Project applicant to be responsible for improvements to this intersection to ensure impacts would be reduced to a less than significant level.

Table 4.11-12: Mitigated Conditions: Existing Plus Approved Projects (2015) Plus Proposed Project – Intersection Levels of Service

No.	Intersection	Analysis Scenario	Traffic Control	AM Peak-Hour		PM Peak-Hour	
				Delay (seconds)	LOS	Delay (seconds)	LOS
19	Pleasant Valley Road (SR-49) at Forni Road	EPAP	TWSC*	718.8 (SB)	F	17.2 (SB)	C
		EPAP+PP		793.8 (SB)	F	24.1 (SB)	C
		EPAP+PP (Mit.)	Signal	35.2	D	16.8	B
20	Pleasant Valley Road (SR-49) at Patterson Road	EPAP	AWSC	79.4	F	137.9	F
		EPAP+PP		93.3	F	194.7	F
		EPAP+PP (Mit.)	Signal	21.2	C	33.1	C
21	Pleasant Valley Road (SR-49) at SR-49 (South)	EPAP	AWSC	70.5	F	87.4	F
		EPAP+PP		73.0	F	107.2	F
		EPAP+PP (Mit.)	Signal	60.8	E	65.9	E

Notes:
EPAP = Existing Plus Approved Projects (2015)
EPAP+PP = Existing Plus Approved Projects (2015) Plus Proposed Project
Mit. = Mitigated
* = Control delay for worst minor approach (worst minor movement) for TWSC.
LOS = Level of Service
Source: KHA 2010, 2011.

Roadway Segments

Table 4.11-13 presents the peak-hour roadway segment operating conditions for this analysis scenario.

Table 4.11-13: Existing Plus Approved Projects (2015) Plus Proposed Project Roadway Segment Levels of Service

No.	Roadway Segment	Roadway Classification	PM Peak-Hour			
			Existing Plus Approved Projects (2015)		Existing Plus Approved Projects (2015) Plus Proposed Project	
			Volume (vph)	LOS	Volume (vph)	LOS
1	Missouri Flat Road-Golden Center Drive to Diamond Springs Parkway	Four Lane Arterial, Divided	2,108	D	2,681	D
2	Missouri Flat Road-Diamond Springs Parkway to China Garden Road	Two-Lane Arterial	1,303	D	1,322	D
3	Missouri Flat Road-China Garden Road to Pleasant Valley Road (SR-49)	Two-Lane Arterial	1,324	D	1,444	D
4	Diamond Road (SR-49)-Truck Street to Diamond Springs Parkway	Minor Two-Lane Highway	1,007	D	1,056	D
5	Diamond Road (SR-49)-Diamond Springs Parkway to Lime Kiln Road	Minor Two-Lane Highway+	1,550	D	1,769	E
6	Diamond Road (SR-49)-Lime Kiln Road to Pleasant Valley Road (SR-49)	Minor Two-Lane Highway+	1,236	D	1,362	D
7	Diamond Springs Parkway-Missouri Flat Road to Throwita Way	Two-Lane Arterial	1,502	D	2,338	F
8	Diamond Springs Parkway-Throwita Way to Diamond Road (SR-49)	Two-Lane Arterial	1,601	D	1,853	E
9	Pleasant Valley Road (SR-49)-Missouri Flat Road to China Garden Road	Two-Lane Arterial	1,127	D	1,110	D
10	Pleasant Valley Road (SR-49)-China Garden Road to Diamond Road (SR-49)	Minor Two-Lane Highway	1,044	D	1,024	D
11	Pleasant Valley Road-Diamond Road (SR-49) to Racquet Way	Two-Lane Arterial	1,271	D	1,369	D
Notes: + From Diamond Springs Parkway Final Traffic Impact Analysis, KHA 2010. Bold = Substandard according to County and/or Caltrans. Source: KHA, 2010, 2011.						

As indicated in Table 4.11-13, the majority of the study roadway segments operate at an acceptable LOS with the addition of the Proposed Project. However, the following roadway segments exceed the thresholds described under Standards of Significance as a result of the Proposed Project.

Segment 5 - Diamond Road (SR-49): Diamond Springs Parkway to Lime Kiln Road

This roadway segment operates at an acceptable LOS D without the Proposed Project and an unacceptable LOS E with the Proposed Project. Accordingly, this is a potentially significant impact. The significant impact at this roadway segment during the PM peak hour can be mitigated by upgrading the facility to a four-lane multilane highway. This improvement will result in the roadway segment operating at an acceptable LOS B.

Improvements to this roadway segment are not currently contained in El Dorado County's 10-Year Capital Improvement Plan and are not included in the County fee program. Accordingly, Mitigation Measure TRANS-1d would require the Project applicant to be responsible for improvements to this segment to ensure impacts would be reduced to a less than significant level.

Segment 7 - Diamond Springs Parkway: Missouri Flat Road to Throwita Way

This roadway segment operates at an acceptable LOS D without the Proposed Project and an unacceptable LOS F with the Proposed Project. Accordingly, this is a potentially significant impact. The significant impact at this roadway segment during the PM peak hour can be mitigated by upgrading the facility to a divided four lane arterial. This improvement will result in the roadway segment operating at an acceptable LOS D.

This improvement is currently listed in El Dorado County's 10-Year Capital Improvement Plan as a future project (occurring beyond fiscal year 2018/2019) under Phase 2 of the Diamond Springs Parkway Project. As indicated by the Traffic Impact Analysis, the Proposed Project is solely responsible for the impact to this roadway segment. Accordingly, Mitigation Measure TRANS-1e would require the Project applicant to be responsible for improvements to this roadway segment and enter into a reimbursement agreement with the County as necessary to ensure impacts would be reduced to a less than significant level.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

- MM TRANS-1a** Prior to the issuance of building permits, the Project applicant shall be responsible for the addition of an eastbound left-turn lane and traffic signal control at the intersection of Pleasant Valley Road (SR-49) and Forni Road. Because of the close proximity, this intersection shall be coordinated with the proposed signalized Pleasant Valley Road (SR-49) intersection with SR-49 (South). The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation.
- MM TRANS-1b** Prior to the issuance of building permits, the Project applicant, at the discretion of El Dorado County General Plan Policy TC-Xg, shall be responsible for the addition of a

westbound left-turn lane and traffic signal control at the intersection of Pleasant Valley Road (SR-49) and Patterson Road in one of the following ways:

- Build the needed improvements and enter into a reimbursement agreement with El Dorado County;
- If the needed improvement is already built, pay a fair-share fee to El Dorado County; or
- If the needed improvement is not yet built, but the Project results in only marginal cause (as determined by the Director of El Dorado County Department of Transportation) and is included in the 10-year Capital Improvement Plan, pay fair-share fees to El Dorado County.

MM TRANS-1c Prior to the issuance of building permits, the Project applicant shall be responsible for the addition of a traffic signal at the intersection of Pleasant Valley Road (SR-49) and SR-49 (South). Because of the close proximity, this intersection shall be coordinated with the proposed signalized Pleasant Valley Road (SR-49) and Forni Road. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation and Caltrans.

MM TRANS-1d Prior to the issuance of building permits, the Project applicant shall be responsible for upgrading Diamond Road (SR-49) between Diamond Springs Parkway and Lime Kiln Road to a four-lane multilane highway. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation and Caltrans.

MM TRANS-1e Prior to the issuance of building permits, the Project applicant shall be responsible for upgrading Diamond Springs Parkway between Missouri Flat Road and Throwita Way to a four-lane divided arterial and shall enter into a reimbursement agreement with El Dorado County for the improvements as applicable. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

Because the proposed offsite improvements are designed to alleviate congestion and improve safety and access for drivers in the project area, impacts on traffic will be limited to construction activities. Except for temporary off-peak lane closures, the same number of traffic lanes will be maintained on offsite roadway improvement areas during the construction period. Narrowed lanes may occur during construction and the roadway may be temporarily shifted to allow work on portions of the roadway.

Prior to construction, a Transportation Management Plan (TMP) will be prepared as required by Caltrans. The TMP will address all traffic-related aspects of construction, including but not limited to traffic handling in each stage of construction, pedestrian safety/access, and bicycle safety/access. A component of the TMP will involve public dissemination of construction-related information through notices to neighborhoods, press releases, and use of message signs. Impacts to traffic capacity as a result of offsite improvements would be considered less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Existing Plus Approved Projects (2015) Plus Project Freeway and Ramp Conditions

Impact TRANS-2: The Proposed Project would not contribute a substantial number of trips to freeway ramp junctions under existing plus approved project conditions.

Impact Analysis

Onsite Improvements

This impact addresses the Proposed Project's impacts to freeway mainline segments and freeway ramp segments under the Existing Plus Approved Projects (2015) Plus Project scenario. Note that this scenario assumes that Phase 1B improvements for the Missouri Flat Road/US-50 interchange, scheduled for completion in 2011, are in place.

Freeway Mainline Segments

Table 4.11-14 presents the peak-hour freeway mainline LOS for the existing plus approved projects (2015), plus proposed project analysis scenario. Table 4.11-14 indicates that the US-50 freeway segments operate from LOS B to LOS D during the AM and PM peak hours both without and with the Proposed Project under this scenario. Accordingly, the Proposed Project would not cause a freeway mainline segment to exceed a standard of significance under this scenario and impacts would be less than significant.

Table 4.11-14: Existing Plus Approved Projects (2015) Plus Proposed Project Freeway Mainline Levels of Service

Location	Existing Plus Approved Projects (2015)						Existing Plus Approved Projects (2015) Plus Proposed Project					
	AM Peak-Hour			PM Peak-Hour			AM Peak-Hour			PM Peak-Hour		
	Total Volume	Flow Rate (pc/h/ln)	LOS	Total Volume	Flow Rate (pc/h/ln)	LOS	Total Volume	Flow Rate (pc/h/ln)	LOS	Total Volume	Flow Rate (pc/h/ln)	LOS
EB US-50, East of Missouri Flat Road	2,464	935	B	3,695	1,403	C	2,490	945	B	3,813	1,448	C
WB US-50, East of Missouri Flat Road	3,695	1,403	C	2,464	935	B	3,735	1,418	C	2,560	972	B
EB US-50, West of Missouri Flat Road	1,946	1,108	B	3,347	1,906	D	1,986	1,131	B	3,443	1,961	D
WB US-50, West of Missouri Flat Road	3,059	1,742	D	2,016	1,148	B	3,085	1,757	D	2,134	1,215	C
Source: KHA, 2010.												

Freeway Ramp Segments

Table 4.11-15 presents the peak-hour freeway ramp operating conditions in the vicinity of the Proposed Project for this analysis scenario.

Table 4.11-15: Existing (2010) Freeway Ramp Junction Levels of Service

Location	Junction Type	Existing Plus Approved Projects (2015)						Existing Plus Approved Projects (2015) Plus Proposed Project					
		AM Peak-Hour			PM Peak-Hour			AM Peak-Hour			PM Peak-Hour		
		Total Volume	Density (pc/mi/ln)	LOS	Total Volume	Density (pc/mi/ln)	LOS	Total Volume	Density (pc/mi/ln)	LOS	Total Volume	Density (pc/mi/ln)	LOS
EB US-50 to Missouri Flat Road	Diverge	524	21.7	C	839	35.4	E	564	22.1	C	935	36.4	E
WB US-50 to Missouri Flat Road	MDA+	1,203	21.6	C	1,111	14.4	B	1,243	21.8	C	1,207	14.9	B
Missouri Flat Road to EB US-50	MMA++	1,042	14.4	B	1,187	21.6	C	1,068	14.5	B	1,305	22.3	C
Missouri Flat Road to WB US-50	Merge	567	29.8	D	663	20.5	C	593	30.1	D	781	21.5	C
Notes: MMA = Major Merge Area MDA = Major Diverge Area + Density computed for MDA from Equation 25-12, Highway Capacity Manual (HCM) 2000. ++ Density Computed for MMA from pages 25-7 to 25-10, Highway Capacity Manual (HCM) 200. Bold = Substandard according to County and/or Caltrans Source: KHA 2010.													

As indicated in Table 4.11-15, the existing US-50 freeway ramp junctions operate from LOS B to LOS E during the AM and PM peak hours without the Proposed Project. The addition of the Proposed Project would increase the volume and density on the following two freeway ramp junctions that already operate at an unacceptable LOS: (1) the east-bound US-50 to Missouri Flat Road in the PM peak hour and (2) Missouri Flat Road to west-bound US-50 in the AM peak hour. However, the increase in volume and density is not expected to result in a noticeable change and impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

Because the proposed offsite improvements are designed to alleviate congestion while improving safety and access in the project area, impacts on traffic will be limited to construction activities; these construction activities would not result in noticeable changes or impacts to freeway ramp junctions in the vicinity. Impacts to freeway ramp junctions as a result of offsite improvements would be considered less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Cumulative (2025) Plus Project Intersection and Roadway Conditions

Impact TRANS-3: The Project would exceed, either individually or cumulatively, a level of service standard established by the El Dorado County General Plan or Caltrans for designated roads or highways.

Impact Analysis

Onsite Improvements

2025 Conditions

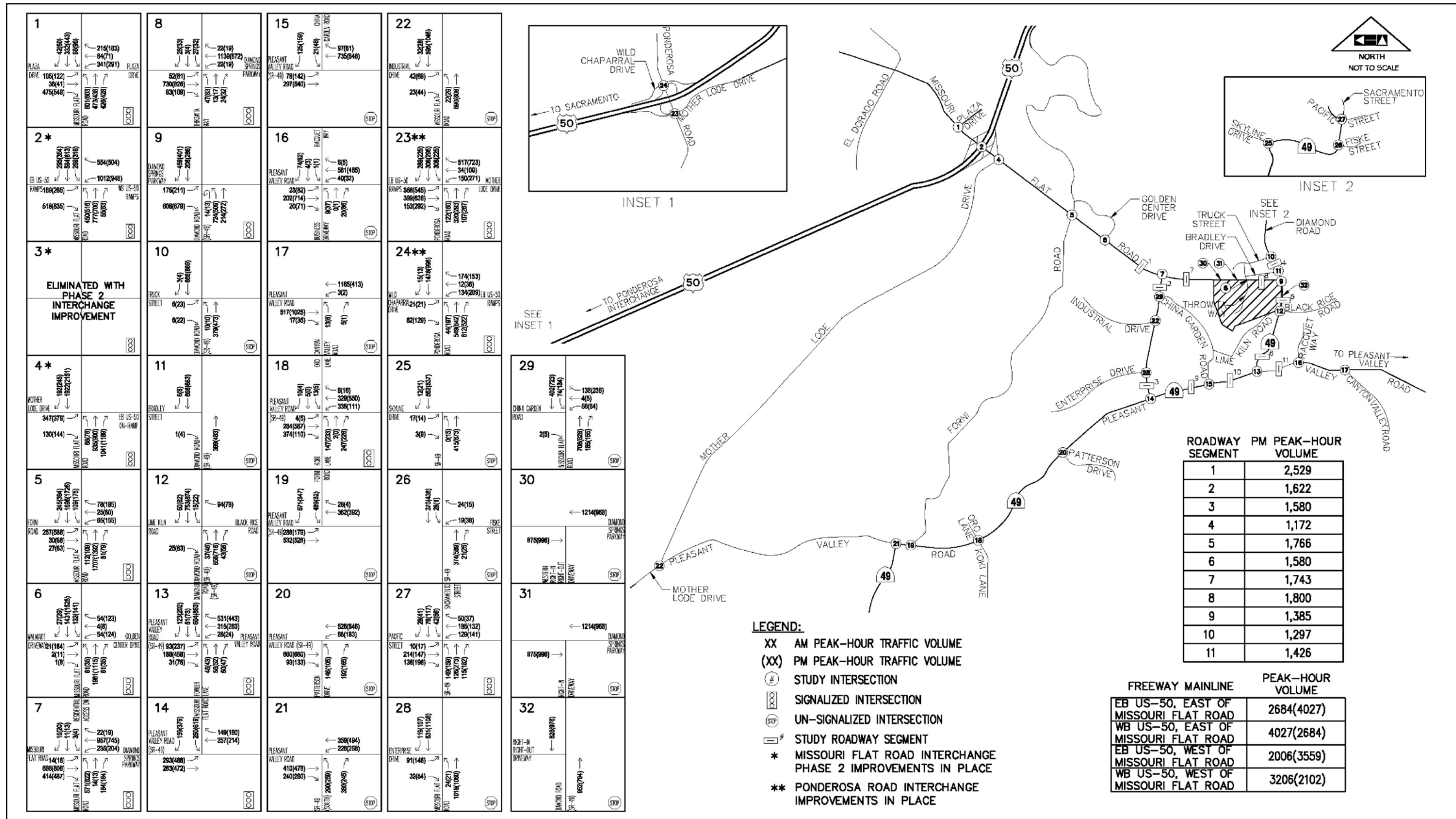
This impact evaluates the impacts of the Proposed Project on cumulative (2025) plus project intersection and roadway operations. As previously noted, this scenario assumes a two-lane parkway

and Diamond Road (SR-49), and a signalized Diamond Road (SR-49)/Lime Kiln Road intersection (with the addition of the Project). This scenario also assumes that Phase 1B of the US-50/Missouri Flat Road Interchange remains in place, as the single-point urban interchange improvements are not currently funded or included in the County's CIP or TIM Fee Program and, therefore, do not have a mechanism for implementation.

Utilizing the Cumulative (2025) volumes, levels of service were determined at the study facilities with and without the addition of the Proposed Project. Exhibit 4.11-5 illustrates the cumulative (2025) peak-hour traffic volumes at the study intersections. Exhibit 4.11-6 illustrates the cumulative (2025) plus project peak-hour traffic volumes. An explanation of the methodology used to derive the 2025 Conditions is included in Appendix L.

Intersections

Table 4.11-16 presents peak-hour intersection operating conditions for the Cumulative (2030) scenario.



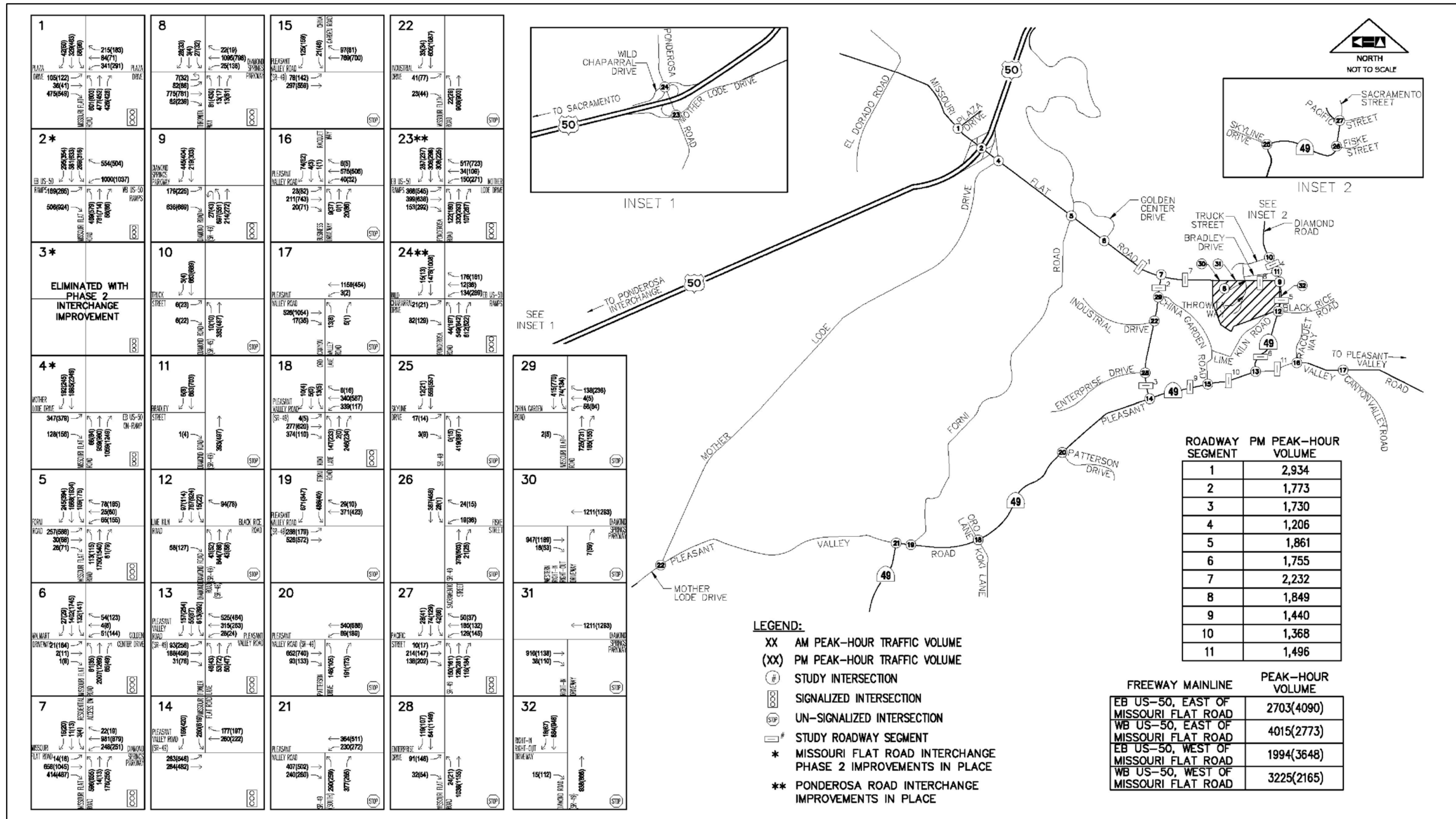
Source: Kimley-Horn and Associates, Inc 2010.



Michael Brandman Associates

33370001• 11/2011 | 4.11-5 Cumulative (2025) Peak-Hour Traffic Volumes.pdf

Exhibit 4.11-5 Cumulative (2025) Peak-Hour Traffic Volumes



Source: Kimley-Horn and Associates, Inc 2010.



NOT TO SCALE

Michael Brandman Associates

33370001• 11/2011 | 4.11-6 Cumulative (2025) Plus Proposed Project

Exhibit 4.11-6 Cumulative (2025) Plus Proposed Project Peak-Hour Traffic Volumes

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Table 4.11-16: Cumulative (2025) Plus Proposed Project Intersection Levels of Service

No.	Intersection	Control Type	Cumulative (2025)				Cumulative (2025) Plus Proposed Project			
			AM Peak-Hour		PM Peak-hour		AM Peak-Hour		PM Peak-Hour	
			Delay (Seconds)	LOS	Delay (Seconds)	LOS	Delay (Seconds)	LOS	Delay (Seconds)	LOS
1	Missouri Flat Road/Plaza Drive	Signal	54.5	D	57.9	E	54.6	D	59.4	E
2	Missouri Flat Road/US-50 Westbound Ramps	Signal	38.5	D	37.6	E	38.8	D	49.5	D
3	Missouri Flat Road/US-50 Eastbound Ramps	Signal	29.7	C	51.9	D	29.4	C	70.4	E
4	Missouri Flat Road/Mother Lode Drive	Signal	27.3	C	62.1	E	26.1	C	94.7	F
5	Missouri Flat Road/Forni Road	Signal	73.1	E	109.0	F	75.0	E	151.5	F
6	Missouri Flat Road/Golden Center Drive	Signal	45.8	D	34.6	C	50.8	D	63.4	E
7	Diamond Springs Parkway/Missouri Flat Road	Signal	31.3	C	33.4	C	30.9	C	48.2	D
8	Diamond Springs Parkway/Throwita Way	Signal	20.3	C	22.8	C	19.4	B	58.0	E
9	Diamond Springs Parkway/Diamond Road (SR-49)	Signal	58.8	E	45.1	D	60.2	E	63.3	E
10	Diamond Road (SR-49)/Truck Street	TWSC*	18.9 (EB)	C	24.2 (EB)	C	19.0 (EB)	C	25.5 (EB)	D
11	Diamond Road (SR-49)/Bradley Drive	TWSC*	13.8 (EB)	B	14.1 (WB)	B	13.7 (EB)	B	14.4 (EB)	B
12	Diamond Road (SR-49)/Lime Kiln Road/Black Rice Road	TWSC* Signal	16.4 (EB)	C	25.0 (EB)	D	28.8	C	89.3	F
13	Diamond Road (SR-49)/Pleasant Valley Road (SR-49)	Signal	22.3	C	43.2	D	22.0	C	46.5	D
14	Pleasant Valley Road (SR-49)/Missouri Flat Road	Signal	13.4	B	28.4	C	12.9	B	32.4	C
15	Pleasant Valley Road (SR-49)/China Garden Road	TWSC*	32.3 (SB)	D	121.6 (SB)	F	27.3 (SB)	E	33.9 (SB)	D
16	Pleasant Valley Road/Racquet Way	TWSC*	14.6 (SB)	B	28.7 (NB)	D	14.5 (SB)	B	31.6 (NB)	D
17	Pleasant Valley Road/Canyon Valley Road	TWSC*	49.1 (NB)	E	37.8 (NB)	E	49.4 (NB)	E	41.9 (NB)	E
18	Pleasant Valley Road (SR-49)/Koki Lane	Signal	51.0	D	44.7	D	51.1	D	59.6	E

Table 4.11-16 (cont.): Cumulative (2025) Plus Proposed Project Intersection Levels of Service

No.	Intersection	Control Type	Cumulative (2025)				Cumulative (2025) Plus Proposed Project			
			AM Peak-Hour		PM Peak-hour		AM Peak-Hour		PM Peak-Hour	
			Delay (Seconds)	LOS	Delay (Seconds)	LOS	Delay (Seconds)	LOS	Delay (Seconds)	LOS
19	Pleasant Valley Road (SR-49)/Forni Road	TWSC*	>900 (SB)	F	52.9 (SB)	F	>900 (SB)	F	95.7 (SB)	F
20	Pleasant Valley Road (SR-49)/Patterson Road	AWSC	154.4	F	228.8	F	154.0	F	271.7	F
21	Pleasant Valley Road (SR-49)/SR-49 (South)	AWSC	148.6	F	167.0	F	146.9	F	182.1	F
22	Missouri Flat Road/Industrial Drive	TWSC*	19.3 (EB)	C	39.6 (EB)	E	19.0 (EB)	C	47.0 (EB)	E
23	Ponderosa Road/US-50 Eastbound Ramps	Signal	42.6	D	127.9	F	42.7	D	127.5	F
24	Ponderosa Road/US-50 Westbound Ramps	Signal	20.7	C	30.3	C	20.7	C	30.6	C
25	Sacramento Street (SR-49)/Skyline Drive	TWSC*	20.3 (EB)	C	31.4 (EB)	D	20.4 (EB)	C	33.1 (EB)	D
26	Sacramento Street (SR-49)/Fiske Street	TWSC*	14.6 (WB)	B	23.0 (WB)	C	14.6 (WB)	B	24.1 (WB)	C
27	Sacramento Street (SR-49)/Pacific Street (SR-49)	Signal	24.5	C	40.1	D	24.6	C	41.8	D
28	Missouri Flat Road/Enterprise Drive	TWSC*	31.5 (EB)	D	182.6 (EB)	F	30.9 (EB)	D	204.7 (EB)	F
29	Missouri Flat Road/China Garden Road	TWSC*	38.4 (WB)	E	115.8 (WB)	F	29.7 (WB)	D	57.6 (WB)	F
30	Diamond Springs Parkway/Right In/Right Out Site Access Driveway	TWSC*	Future Study Facility				21.4 (NB)	C	35.8 (NB)	E
31	Diamond Springs Parkway/Right In Site Access Driveway	TWSC*					0.0 (EB)	A	0.0 (EB)	A
32	Diamond Road (SR-49)/Site Access Driveway	TWSC*					19.8 (EB)	C	41.5 (EB)	E
Notes: * Control delay for worst minor approach (worst minor movement) for two-way stop controlled (TWSC). Bold denotes deficient intersection operations according to County and/or Caltrans Average delay is measured as seconds per vehicle; reserve capacity is measured as passenger cars per hour. LOS = Level of Service Source: KHA, 2010, 2011.										

As shown in Table 4.11-16, two intersections would operate at an unacceptable LOS in the PM peak hour as a direct result of the Proposed Project. In addition, the Proposed Project would contribute more than 10 trips to seven intersections that operate at LOS F without the Proposed Project. Accordingly, the following intersections exceed the thresholds described under Standards of Significance as a result of the Proposed Project.

Intersection 4 - Missouri Flat Road/Mother Lode Drive

This intersection operates at an unacceptable LOS F during the PM peak hour with the Proposed Project. Addition of the Proposed Project would contribute more than 10 peak-hour trips to the intersection during the PM peak hour, thereby worsening the already unacceptable LOS. Accordingly, this is a potentially significant impact. The significant impact at this intersection during the PM peak hour can be mitigated with the conversion of the southbound right-turn lane to a through-right turn lane, and the addition of a southbound through lane south of Mother Lode Drive. In addition, the dual eastbound right-turn lanes from the eastbound US-50 ramps to Missouri Flat Road should be converted into a single, free right-turn lane. As shown Table 4.11-17, the added southbound capacity and ramp intersection improvements would result in the intersection operating at an acceptable LOS D during the PM peak hour.

This improvement is not currently listed in El Dorado County's 10-Year Capital Improvement Plan and is therefore not eligible for fair-share payments by the Project applicant. Accordingly, Mitigation Measure TRANS-3a would require the Project applicant to be responsible for improvements. While the implementation of this mitigation would create an acceptable LOS at the intersection, it would also result in queuing greater than the available storage pockets at the US-50 ramp intersections. Refer to Impact TRANS-5 for further discussing regarding the remaining queuing impacts.

Intersection 5 - Missouri Flat Road and Forni Road

This intersection operates at an unacceptable LOS F during the PM peak hour without the Proposed Project. Addition of the Proposed Project would contribute more than 10 peak-hour trips to the intersection during the PM peak hour, thereby worsening the already unacceptable LOS. Accordingly, this is a potentially significant impact. The significant impact at this intersection during the PM peak hour can be mitigated with the addition of a southbound through lane. As shown Table 4.11-17, the mitigation results in the intersection operating at an acceptable LOS E during the PM peak hour.

This improvement is not currently listed in El Dorado County's 10-Year Capital Improvement Plan and is therefore not eligible for fair-share payments by the Project applicant. Accordingly, Mitigation Measure TRANS-3b would require the Project applicant to be responsible for improvements to this intersection to ensure impacts would be reduced to a less than significant level.

Intersection 12 - Diamond Road (SR-49)/Lime Kiln Road/Black Rice Road

This intersection operates at an unacceptable LOS F during the PM peak hour with the Proposed Project. Addition of the Proposed Project would contribute more than 10 peak-hour trips to the intersection during the PM peak hour, thereby worsening the already unacceptable LOS.

Accordingly, this is a potentially significant impact. The significant impact at this intersection during the PM peak hour can be mitigated with the addition of a northbound through lane and a southbound through lane. As shown Table 4.11-17, the added northbound and southbound capacity results in the intersection operating at an acceptable LOS C during the PM peak hour.

This improvement is not currently listed in El Dorado County's 10-Year Capital Improvement Plan and is therefore not eligible for fair-share payments by the Project applicant. Accordingly, Mitigation Measure TRANS-3c would require the Project applicant to be responsible for improvements to this intersection to ensure impacts would be reduced to a less than significant level.

Intersection 19 - Pleasant Valley Road (SR-49) and Forni Road

This intersection operates at an unacceptable LOS F during the AM and PM peak hours without the Proposed Project. Addition of the Proposed Project would contribute more than 10 peak-hour trips to the intersection during the AM and PM peak hour, thereby worsening the already unacceptable LOS. Accordingly, this is a potentially significant impact. The significant impact at this intersection during the AM and PM peak hours can be mitigated with the addition of a southbound right-turn lane, an eastbound left-turn lane, and traffic signal control. In addition, Because of the close proximity, this intersection should be coordinated with the proposed signalized Pleasant Valley Road (SR-49) intersection with SR-49 (South). As shown Table 4.11-17, the mitigation would result in the intersection operating at an acceptable LOS D and LOS B during the AM and PM peak hours, respectively.

This improvement is not currently listed in El Dorado County's 10-Year Capital Improvement Plan and is therefore not eligible for fair-share payments by the Project applicant. Accordingly, Mitigation Measure TRANS-3d would require the Project applicant to be responsible for improvements to this intersection to ensure impacts would be reduced to a less than significant level.

Intersection 20 - Pleasant Valley Road (SR-49) and Patterson Road

This intersection operates at an unacceptable LOS F during the AM and PM peak hours without the Proposed Project. Addition of the Proposed Project would contribute more than 10 peak-hour trips to the intersection during the AM and PM peak hours, thereby worsening the already unacceptable LOS. Accordingly, this is a potentially significant impact. However, implementation of Mitigation Measure TRANS-1b would require the Project applicant to implement a westbound left-turn lane and traffic signal control. As shown Table 4.11-17, the mitigation would result in the intersection operating at an acceptable LOS B and LOS C during the AM and PM peak hour, respectively. As such, impacts to this roadway intersection would be reduced to less than significant.

Intersection 21 - Pleasant Valley Road (SR-49) and SR-49 (South)

This intersection operates at an unacceptable LOS F during the AM and PM peak hours without the Proposed Project. Addition of the Proposed Project would contribute more than 10 peak-hour trips to the intersection during the AM and PM peak hours, thereby worsening the already unacceptable LOS. Accordingly, this is a potentially significant impact. The significant impact at this intersection during the AM and PM peak hours can be mitigated with the addition of a northbound right-turn lane and traffic signal control. In addition, Because of the close proximity, this intersection should be coordinated with the proposed signalized Pleasant Valley Road (SR-49) intersection with Forni Road. As shown in Table 4.11-17, this mitigation results in the intersection operating at an acceptable LOS D and LOS E during the AM and PM peak hour, respectively.

This improvement is not currently listed in El Dorado County's 10-Year Capital Improvement Plan and is therefore not eligible for fair-share payments by the Project applicant. Accordingly, Mitigation Measure TRANS-3e would require the Project applicant to be responsible for improvements to this intersection to ensure impacts would be reduced to a less than significant level.

Intersection 23 - Ponderosa Road and US-50 Eastbound Ramps

This intersection operates at an unacceptable LOS F in the PM peak hour without the Proposed Project. Addition of the Proposed Project would contribute more than 10 peak-hour trips to the intersection during the PM peak hour, thereby worsening the already unacceptable LOS. Accordingly, this is a potentially significant impact. The significant impact at this intersection during the PM peak hour can be mitigated with the conversion of the westbound right-turn lane to a free-right turn lane. As shown in Table 4.11-17, this mitigation would result in the intersection operating at an acceptable LOS E during the PM peak hour.

Improvements necessary to reduce impacts to less than significant at this intersection are included in El Dorado County's 10-Year Capital Improvement Plan under project number 71333, U.S. 50/Ponderosa Road/South Shingle Road Interchange Improvements and, therefore, may be eligible for fair-share payments by the Project applicant. However, construction is not scheduled to occur until sometime between 2014 and 2019. As such, Mitigation Measure TRANS-3f would require the Project applicant to either complete improvements to the intersection or pay fair-share fees, dependent upon whether or not the improvements have already occurred. Implementation of TRANS-f would ensure impacts are reduced to a less than significant level.

Intersection 28 - Missouri Flat Road and Enterprise Drive

The minor, stop-controlled eastbound Enterprise Drive approach operates at an unacceptable LOS F in the PM peak hour without the Proposed Project. While the Proposed Project does not add traffic to the eastbound approach, it would increase the delay for the eastbound approach, confounding the existing unacceptable LOS F in the PM peak hour. (Delay at the intersection will be caused by additional through traffic on Missouri Flat Road.) Construction of a signal at the intersection would mitigate the eastbound approach delay, but it would result in a significant southbound queuing issue

on Missouri Flat Road exceeding 1,500 feet. As such, implementation of a signal at this intersection would result in unacceptable queuing issues and is not an acceptable option for mitigation and no other feasible mitigation is available. Therefore, impacts would be significant and unavoidable.

Intersection 29 - Missouri Flat Road and China Garden Road

This intersection operates at an unacceptable LOS F in the PM peak hour without the Proposed Project. Addition of the Proposed Project would contribute more than 10 peak-hour trips to the intersection during the PM peak hour, thereby worsening the already unacceptable LOS.

Accordingly, this is a potentially significant impact. The significant impact at this intersection during the PM peak hour can be mitigated with the addition of a westbound right-turn lane. As shown in Table 4.11-17, this mitigation would result in the intersection operating at an acceptable LOS D during the PM peak hour.

This improvement is not currently listed in El Dorado County's 10-Year Capital Improvement Plan and is therefore not eligible for fair-share payments by the Project applicant. Accordingly, Mitigation Measure TRANS-3g would require the Project applicant to be responsible for improvements to this intersection to ensure impacts would be reduced to a less than significant level.

Table 4.11-17: Mitigated Conditions: Cumulative (2025) Plus Proposed– Intersection Levels of Service

No.	Intersection	Analysis Scenario	Traffic Control	AM Peak-Hour		PM Peak-Hour	
				Delay (seconds)	LOS	Delay (seconds)	LOS
4	Missouri Flat Road at Mother Lode Drive	CUM	Signal	23.7	C	62.1	E
		CUM+PP		26.1	C	94.7	F
		CUM+PP (Mit.)		17.2	B	43.1	D
5	Missouri Flat Road at Forni Road	CUM	Signal	73.1	E	109.0	F
		CUM+PP		75.0	E	151.5	F
		CUM+PP (Mit.)		48.5	D	79.9	E
12	Diamond Road (SR-49) at Lime Kiln Road/Black Rice Road	CUM	TWSC*	16.4 (EB)	C	25.0 (EB)	D
		CUM+PP	Signal	28.8	C	89.3	F
		CUM+PP (Mit.)		17.0	B	26.5	C
19	Pleasant Valley Road (SR-49) at Forni Road	CUM	TWSC*	>900 (SB)	F	52.9 (SB)	F
		CUM+PP	Signal	>900 (SB)	F	95.7 (SB)	F
		CUM+PP (Mit.)		39.5	D	19.9	B
20	Pleasant Valley Road (SR-49) at Patterson Road	CUM	AWSC	154.4	F	228.8	F
		CUM+PP		154.0	F	271.1	F
		CUM+PP (Mit.)	Signal	16.4	B	22.0	C

Table 4.11-17 (cont.): Mitigated Conditions: Cumulative (2025) Plus Proposed– Intersection Levels of Service

No.	Intersection	Analysis Scenario	Traffic Control	AM Peak-Hour		PM Peak-Hour	
				Delay (seconds)	LOS	Delay (seconds)	LOS
21	Pleasant Valley Road (SR-49) at SR-49 (South)	CUM	AWSC	148.6	F	167.0	F
		CUM+PP		146.9	F	182.1	F
		CUM+PP (Mit.)	Signal	38.8	D	57.1	E
23	Ponderosa Road at US-50 Eastbound Ramps	CUM	Signal	42.6	D	127.9	F
		CUM+PP		42.7	D	127.5	F
		CUM+PP (Mit.)		30.6	C	56.8	E
29	Missouri Flat Road at China Garden Road	CUM	TWSC*	38.4 (WB)	E	115.8 (WB)	F
		CUM+PP		29.7 (WB)	E	57.6 (WB)	F
		CUM+PP (Mit.)		20.7 (WB)	C	27.9 (WB)	D

Notes:
EPAP = Existing Plus Approved Projects (2015)
EPAP+PP = Existing Plus Approved Projects (2015) Plus Proposed Project
Mit. = Mitigated
* = Control delay for worst minor approach (worst minor movement) for TWSC.
LOS = Level of Service
Source: KHA 2010, 2011.

Roadway Segments

Table 4.11-18 below provides LOS for cumulative (2025) plus the proposed project roadway segments.

Table 4.11-18: Cumulative (2025) Plus Proposed Project Roadway Segment Levels of Service

#/(LOS threshold)	Roadway Segment	Roadway Classification	PM Peak-Hour			
			Cumulative (2025)		Cumulative (2025) Plus Proposed Project	
			Volume (vph)	LOS	Volume (vph)	LOS
1/(E)	Missouri Flat Road-Golden Center Drive to Diamond Springs Parkway	Four Lane Arterial, Divided ⁺	2,529	D	2,934	D
2/(E)	Missouri Flat Road-Diamond Springs Parkway to China Garden Road	Two-Lane Arterial	1,622	D	1,572	D
3/(E)	Missouri Flat Road-China Garden Road to Pleasant Valley Road (SR-49)	Two-Lane Arterial ⁺	1,580	D	1,646	D

Table 4.11-18 (cont.): Cumulative (2025) Plus Proposed Project Roadway Segment Levels of Service

#/(LOS threshold)	Roadway Segment	Roadway Classification	PM Peak-Hour			
			Cumulative (2025)		Cumulative (2025) Plus Proposed Project	
			Volume (vph)	LOS	Volume (vph)	LOS
4/(E)	Diamond Road (SR-49)-Truck Street to Diamond Springs Parkway	Minor Two-Lane Highway	1,172	D	1,206	D
5/(D)	Diamond Road (SR-49)-Diamond Springs Parkway to Lime Kiln Road	Major Two-Lane Highway	1,766	E	1,936	E
6/(D)	Diamond Road (SR-49)-Lime Kiln Road to Pleasant Valley Road (SR-49)	Major Two-Lane Highway ⁺	1,580	D	1,640	E
7/(E)	Diamond Springs Parkway-Missouri Flat Road to Throwita Way	Two-Lane Arterial ⁺	1,743	D	2,359	F
8/(E)	Diamond Springs Parkway-Throwita Way to Diamond Road (SR-49)	Two-Lane Arterial	1,800	E	1,998	F
9/(E)	Pleasant Valley Road (SR-49)-Missouri Flat Road to China Garden Road	Two-Lane Arterial ⁺⁺	1,385	D	1,356	D
10/(D)	Pleasant Valley Road (SR-49)-China Garden Road to Diamond Road (SR-49)	Minor Two-Lane Highway	1,297	D	1,253	D
11/(E)	Pleasant Valley Road-Diamond Road (SR-49) to Racquet Way	Two-Lane Arterial ⁺	1,426	D	1,496	D
Notes: ⁺ From Diamond Springs Parkway Final Traffic Impact Analysis, KHA 2010. ⁺⁺ According to Caltrans and El Dorado Department of Transportation. Bold = Substandard according to County and/or Caltrans. Source: KHA, 2010, 2011.						

Segment 5 - Diamond Road (SR-49): Diamond Springs Parkway to Lime Kiln Road

This roadway segment operates at an unacceptable LOS E during the PM peak hour without the Proposed Project and an unacceptable LOS E with the Proposed Project. Accordingly, this is a potentially significant impact. However, implementation of Mitigation Measure TRANS-1d would require the Project applicant to upgrade this roadway segment to a four-lane multilane highway prior to the issuance of building permits. This improvement will result in an acceptable LOS C. As such, impacts to this roadway segment would be reduced to less than significant.

Segment 6 - Diamond Road (SR-49): Lime Kiln Road to Pleasant Valley Road (SR-49)

This roadway segment operates at an acceptable LOS D during the PM peak hour without the Proposed Project and an unacceptable LOS E with the Proposed Project. Accordingly, this is a potentially significant impact. The significant impact at this roadway segment during the PM peak hour can be mitigated by upgrading the facility to a four-lane, multilane highway, resulting in an acceptable LOS B.

Improvements to this segment are not currently contained in El Dorado County's 10-Year Capital Improvement Plan and are not included in the County fee program. As indicated by the Traffic Impact Analysis, the Proposed Project is solely responsible for the impact to this roadway segment. Accordingly, Mitigation Measure TRANS-3h would require the Project applicant to be responsible for improvements to this segment to ensure impacts would be reduced to a less than significant level.

Segment 7 - Diamond Springs Parkway: Missouri Flat Road to Throwita Way

This roadway segment operates at an acceptable LOS D during the PM peak hour without the Proposed Project and an unacceptable LOS F with the Proposed Project. Accordingly, this is a potentially significant impact. However, implementation of Mitigation Measure TRANS-1e would require the Project applicant to upgrade this roadway segment to a four-lane divided arterial prior to the issuance of building permits. This improvement would result in an acceptable LOS D. As such, impacts to this roadway segment would be reduced to less than significant.

Segment 8 - Diamond Springs Parkway - Throwita Way to Diamond Road (SR-49)

This roadway segment operates at an acceptable LOS E during the PM peak hour without the Proposed Project and an unacceptable LOS F with the Proposed Project. Accordingly, this is a potentially significant impact. The significant impact at this roadway segment during the PM peak hour can be mitigated by upgrading the facility to a divided four-lane arterial. This improvement would result in an acceptable LOS D.

This improvement is currently listed in El Dorado County's 10-Year Capital Improvement Plan as a future project (occurring beyond fiscal year 2018-2019) under Phase 2 of the Diamond Springs Parkway Project. Accordingly, Mitigation Measure TRANS-3i would require the Project applicant to be responsible for improvements to this roadway segment and enter into a reimbursement agreement with the County as necessary to ensure impacts would be reduced to a less than significant level.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-3a Prior to the issuance of building permits, the Project applicant shall be responsible for upgrades to the Missouri Flat Road/Mother Lode Drive consisting of the conversion of the southbound right-turn lane to a through-right turn lane, and the addition of a

southbound through lane south of Mother Lode Drive. In addition, the dual eastbound right-turn lanes from the eastbound US-50 ramps to Missouri Flat Road should be converted into a single free right-turn lane. The exclusive right-turn lane exiting eastbound US-50 shall channel vehicles destined for southbound Missouri Flat Road into the proposed southbound through-right lane at Mother Lode Drive.

MM TRANS-3b Prior to the issuance of building permits, the Project applicant shall be responsible for the addition of a southbound through lane at the intersection Missouri Flat Road and Forni Road. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation.

MM TRANS-3c Prior to the issuance of building permits, the Project applicant shall be responsible for the addition of a northbound through lane and a southbound through lane at the intersection Diamond Road (SR-49) and Lime Kiln Road/Black Rice Road. In addition, the re-optimization of the signal timing along the signal corridor (including the following intersections: Diamond Springs Parkway and Throwita Way, Diamond Springs Parkway and Diamond Road (SR-29), and Diamond Road (SR-29) and Lime Kiln Road/Black Rice Road) shall be completed. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation and Caltrans.

MM TRANS-3d Prior to the issuance of building permits, and upon approval from Caltrans, the Project applicant shall be responsible for the addition of a southbound right-turn lane, an eastbound left-turn lane, and traffic signal control at the intersection of Pleasant Valley Road (SR-49) and Forni Road. Additionally, the intersection shall be coordinated with the signalized Pleasant Valley Road (SR-49) intersection with SR-49 (South).

MM TRANS-3e Prior to the issuance of building permits, and upon approval from Caltrans, the Project applicant shall be responsible for the addition of a northbound right-turn lane and traffic signal control at the intersection of Pleasant Valley Road (SR-49) and SR-49 (South). Additionally, the intersection shall be coordinated with the signalized Pleasant Valley Road (SR-49) intersection with Forni Road.

MM TRANS-3f Prior to the issuance of building permits, and in the event that the conversion of the westbound right-turn lane to a free-right turn lane at the intersection of Ponderosa Road and the US-50 Eastbound Ramps has not yet occurred, the Project applicant shall fund and implement said improvements and shall enter into a reimbursement agreement with El Dorado County for the improvements as applicable. If said improvements have been implemented prior to the issuance of building permits, the Project applicant shall pay fair-share fees for the intersection improvements. The

improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation and Caltrans.

MM TRANS-3g Prior to the issuance of building permits, the Project applicant shall be responsible for the addition of a westbound right-turn lane at the intersection of Missouri Flat Road and China Garden Road. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation.

MM TRANS-3h Prior to the issuance of building permits, the Project applicant shall be responsible for upgrading Diamond Road (SR-49) between Lime Kiln Road and Pleasant Valley Road (SR-49) to a four-lane multilane highway. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation and Caltrans.

MM TRANS-3i Prior to the issuance of building permits, the Project applicant shall be responsible for upgrading Diamond Springs Parkway between Throwita Way and Diamond Road (SR-29) to a four-lane divided arterial and shall enter into a reimbursement agreement with El Dorado County for the improvements as applicable. The improvements shall be completed to the satisfaction of the El Dorado County Department of Transportation.

Level of Significance After Mitigation

Significant and unavoidable impact.

Offsite Improvements

Because the proposed offsite improvements are designed to alleviate congestion while improving safety and access in the project area, impacts on traffic will be limited to construction activities. Except for temporary off-peak lane closures, the same number of traffic lanes will be maintained on offsite roadway improvement areas during the construction period. Narrowed lanes may occur during construction and the roadway may be temporarily shifted to allow work on portions of the roadway.

Prior to construction, a TMP will be prepared as required by Caltrans. The TMP will address all traffic-related aspects of construction, including but not limited to traffic handling in each stage of construction, pedestrian safety/access, and bicycle safety/access. A component of the TMP will involve public dissemination of construction-related information through notices to neighborhoods, press releases, and use of message signs. In addition, impacts from construction activities for offsite roadway improvements are short-term in nature, and upon completion of roadway improvements would increase the level of service at each intersection. Impacts to the level of service at the intersections where offsite roadway improvements would occur would be considered less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Cumulative (2025) Plus Project Freeway and Ramp Conditions

Impact TRANS-4: The Proposed Project would not contribute to a substantial number of trips to freeway ramp junctions directly causing unacceptable levels of service under cumulative (2025) conditions.

Impact Analysis*Onsite Improvements*

This impact addresses the Proposed Project's impacts related to freeway mainline segments and freeway ramp segments under the Cumulative (2025) Plus Project scenario.

Freeway Mainline Segments

Table 4.11-19 presents the peak-hour freeway mainline LOS for the cumulative analysis scenario. As indicated in Table 4.11-19, the US-50 freeway segments operate from LOS B to LOS D during the AM and PM peak hours both with and without the Proposed Project. Accordingly, the Proposed Project would not cause a freeway mainline segment to exceed a standard of significance under the cumulative scenario and impacts would be less than significant.

Table 4.11-19: Cumulative (2025) Plus Proposed Project Freeway Mainline Levels of Service

Location	Cumulative (2025)						Cumulative (2025) Plus Proposed Project					
	AM Peak-Hour			PM Peak-Hour			AM Peak-Hour			PM Peak-Hour		
	Total Volume	Flow Rate (pc/h/ln)	LOS	Total Volume	Flow Rate (pc/h/ln)	LOS	Total Volume	Flow Rate (pc/h/ln)	LOS	Total Volume	Flow Rate (pc/h/ln)	LOS
EB US-50, East of Missouri Flat Road	2,684	1,014	B	4,027	1,521	C	2,703	1,021	B	4,090	1545	C
WB US-50, East of Missouri Flat Road	4,027	1,524	C	2,684	1,014	B	4,015	1,517	C	2,773	1048	B
EB US-50, West of Missouri Flat Road	2,006	758	B	3,559	1,345	C	1,994	761	B	3,648	1392	C
WB US-50, West of Missouri Flat Road	3,206	1,817	D	2,102	1,191	C	3,225	1,828	D	2,165	1227	C
Source: KHA, 2010.												

Freeway Ramp Segments

Table 4.11-20 presents the peak-hour freeway ramp operating conditions in the vicinity of the Proposed Project for the cumulative analysis scenario.

Table 4.11-20: Cumulative (2025) Plus Proposed Project Freeway Ramp Junction Levels of Service

Location	Junction Type	Existing Plus Approved Projects (2015)						Existing Plus Approved Projects (2015) Plus Proposed Project					
		AM Peak-Hour			PM Peak-Hour			AM Peak-Hour			PM Peak-Hour		
		Total Volume	Density (pc/mi/ln)	LOS	Total Volume	Density (pc/mi/ln)	LOS	Total Volume	Density (pc/mi/ln)	LOS	Total Volume	Density (pc/mi/ln)	LOS
EB US-50 to Missouri Flat Road	MDA ⁺	687	11.7	B	1,100	20.8	C	675	11.6	B	1,189	21.3	C
WB US-50 to Missouri Flat Road	MDA ⁺	1,566	23.5	C	1,452	15.7	B	1,554	23.4	C	1,541	16.2	B
Missouri Flat Road to EB US-50	MMA ⁺⁺	1,365	15.6	B	1,568	23.4	C	1,384	15.7	B	1,631	23.8	C
Missouri Flat Road to WB US-50	Merge	745	30.9	D	870	21.1	C	764	31.1	D	933	21.6	C

Notes:
MMA = Major Merge Area, MDA = Major Diverge Area + Density computed for MDA from Equation 25-12, Highway Capacity Manual (HCM) 2000.
++ Density Computed for MMA from pages 25-7 to 25-10, Highway Capacity Manual (HCM) 200. **Bold** = Substandard according to County and/or Caltrans
Source: KHA, 2010.

As indicated in Table 4.11-20, the existing US-50 freeway ramp junctions operate from LOS B to LOS D during the AM and PM peak hours without the Proposed Project. The addition of the Proposed Project would increase the volume and density on the Missouri Flat Road to westbound US-50 in the AM peak hour. However, the increase in volume and density is not expected to result in a noticeable change and impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

Because the proposed offsite improvements are designed to alleviate congestion while improving safety and access in the project area, impacts on traffic will be limited to construction activities. Except for temporary off-peak lane closures, the same number of traffic lanes will be maintained on offsite roadway improvement areas during the construction period. Narrowed lanes may occur during construction and the roadway may be temporarily shifted to allow work on portions of the roadway.

Prior to construction, a TMP will be prepared as required by Caltrans. The TMP will address all traffic-related aspects of construction, including but not limited to traffic handling in each stage of construction, pedestrian safety/access, and bicycle safety/access. A component of the TMP will involve public dissemination of construction-related information through notices to neighborhoods, press releases, and use of message signs. In addition, impacts from construction activities for offsite roadway improvements are short-term in nature, and upon completion of roadway improvements would increase the Level of Service at each intersection. While the onsite improvements, discussed above would increase the volume and density of vehicles at freeway junctions, the proposed offsite roadway improvements are designed to increase the Level of Service and thus impacts to ramp junctions where offsite roadway improvements would occur would be considered less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Queuing

Impact TRANS-5: The Project would contribute to deficient queuing.

Impact Analysis

Onsite Improvements

As congestion increases, it is common for traffic at signals and stop signs to form lines of stopped (or queued) vehicles. Existing queue lengths (the length of traffic lanes used for intersection queuing) were evaluated at each of the study intersections and compared to the peak-hour 95th percentile traffic queue lengths (the total length of vehicles waiting at an intersection). Note that average traffic queue lengths are generally shorter than the peak-hour 95th percentile; therefore, this analysis presents a conservative estimate. A typical vehicle length of 25 feet was used in the queuing analysis. A summary of the queuing results is included in Appendix L.

Vehicle queuing was evaluated at the following 11 intersections.

- Diamond Road (SR-49) at Truck Street
- Diamond Road (SR-49) at Bradley Drive
- Pleasant Valley Road (SR-49) at China Garden Road
- Pleasant Valley Road at Racquet Way
- Pleasant Valley Road at Canyon Valley Road
- Pleasant Valley Road (SR-49) at Forni Road
- Pleasant Valley Road (SR-49) at Patterson Road
- Pleasant Valley Road (SR-49) at SR-49 (South)
- Missouri Flat Road at Industrial Drive
- Sacramento Street (SR-49) at Skyline Drive
- Sacramento Street (SR-49) at Fiske Street
- Missouri Flat Road at Enterprise Drive
- Missouri Flat Road at China Garden Road
- Diamond Springs Parkway at Right-In/Right-Out Site Access Driveway
- Diamond Springs Parkway at Right-In Site Access Driveway
- Diamond Road (SR-49) at Site Access Driveway

Results of the queuing evaluation at intersections where vehicle queuing lengths exceeded available queue lane lengths are presented in Table 4.11-21. Queuing evaluations for all other study intersection's turning and through queues (where available queuing lane lengths were not exceeded) can be found in Appendix L. Note that the following analysis was performed on queues resulting after the implementation of mitigation measures proposed for LOS impacts as previously described in this Draft EIR.

Table 4.11-21: Intersection Queuing Evaluation Results for Select Locations

Intersection	Movement	AM Peak-Hour		PM Peak-Hour	
		Available Storage (ft)	95 th % Queue (ft)	Available Storage (ft)	95 th % Queue (ft)
#2, Missouri Flat Rd at WB US-50 Ramps	WBLT				
Cumulative (2025) No SPUI	600 [*]	620	600 [*]	561	
Cumulative (2025) No SPUI Plus DDRC		608		645	
Cumulative (2025) No SPUI Plus DDRC (LOS Mitigated)		560		593	
	NBLT				
Cumulative (2025) No SPUI	125 ⁺	310	125 ⁺	241	
Cumulative (2025) No SPUI Plus DDRC		331		273	
Cumulative (2025) No SPUI Plus DDRC (LOS Mitigated)		307		372	
#3, Missouri Flat Rd at EB US-50 Ramps	EBRT				
Cumulative (2025) No SPUI	545	374	545	615	
Cumulative (2025) No SPUI Plus DDRC		370		716	
Cumulative (2025) No SPUI Plus DDRC (LOS Mitigated)		0 (Free)		0 (Free)	
	SBLT				
Cumulative (2025) No SPUI	100 ⁺	132	100 ⁺	150	
Cumulative (2025) No SPUI Plus DDRC		134		130	
Cumulative (2025) No SPUI Plus DDRC (LOS Mitigated)		120		107	
#7, Diamond Springs Parkway at Missouri Flat Rd	WBLT				
Existing (2010)	325 ⁺		325 ⁺		
Existing Plus Approved Project (2015)		373		315	
Existing Plus Approved Project Plus Proposed Project (2015)		397		509	
Cumulative (2025)		414		391	
Cumulative (2025) Plus Proposed Project		436		546	
	NBLT				
Existing (2010)	325 ⁺		325 ⁺		
Existing Plus Approved Project (2015)		332		375	
Existing Plus Approved Project Plus Proposed Project (2015)		321		337	
Cumulative (2025)		357		405	
Cumulative (2025) Plus Proposed Project		332		278	

Table 4.11-21 (cont.): Intersection Queuing Evaluation Results for Select Locations

Intersection	Movement	AM Peak-Hour		PM Peak-Hour	
		Available Storage (ft)	95 th % Queue (ft)	Available Storage (ft)	95 th % Queue (ft)
#8, Diamond Springs Parkway at Throwita Way	EBLT				
Existing (2010)		175		175	
Existing Plus Approved Project (2015)			88		104
Existing Plus Approved Project Plus Proposed Project (2015)			111		173
Cumulative (2025)			123		147
Cumulative (2025) Plus Proposed Project			150		199
	WBLT				
Existing (2010)		100		100	
Existing Plus Approved Project (2015)			29		30
Existing Plus Approved Project Plus Proposed Project (2015)			32		291
Cumulative (2025)			26		29
Cumulative (2025) Plus Proposed Project			35		233
#13, Diamond Rd (SR-49) at Pleasant Valley Rd	EBLT				
Existing (2010)		180	83	180	165
Existing Plus Approved Project (2015)			83		185
Existing Plus Approved Project Plus Proposed Project (2015)			85		182
Cumulative (2025)			97		244
Cumulative (2025) Plus Proposed Project			90		216
Cumulative (2025) Plus Proposed Project (Mitg. For Queuing)			85		213
#19, Pleasant Valley Rd (SR-49) at Forni Rd	EBLT				
Existing (2010)					
Existing Plus Approved Project (2015)					
Existing Plus Approved Project Plus Proposed Project (2015)					
EPAP Plus Proposed Project (with LOS Mitigation)		150	97	150	84
Cumulative (2025)					
Cumulative (2025) Plus Proposed Project					
Cumulative (2025) Plus Proposed Project (with LOS Mitigation)		150	287	150	150

Table 4.11-21 (cont.): Intersection Queuing Evaluation Results for Select Locations

Intersection	Movement	AM Peak-Hour		PM Peak-Hour	
		Available Storage (ft)	95 th % Queue (ft)	Available Storage (ft)	95 th % Queue (ft)
#21, Pleasant Valley Rd (SR-49) at SR-49 (South)	WBLT				
Existing (2010) ⁺⁺		45	180	45	172
Existing Plus Approved Project (2015) ⁺⁺			189		192
Existing Plus Approved Project Plus Proposed Project (2015) ⁺⁺			194		217
Existing Plus Approved Project Plus Proposed Project (with LOS Mitigation)			127		314
Cumulative (2025) ⁺⁺			209		239
Cumulative (2025) Plus Proposed Project ⁺⁺			213		252
Cumulative (2025) Plus Proposed Project (with LOS Mitigation)			197		406
Notes: + Dual left-turn lanes * Intersection approach with available storage length equal to segment length Bold denotes vehicle queues exceed available queue lengths. WBLT = west bound left turn NBLT = north bound left turn EBLT = east bound left turn Source: KHA, 2010, 2011.					

As indicated in Table 4.11-21, the Proposed Project would result in vehicle queues exceeding available queue length at several intersections resulting in significant impacts at the following turning movements:

- Missouri Flat Road/Westbound US-50 Ramps – Northbound left.
- Missouri Flat Road/Eastbound US-50 Ramps – Southbound left.
- Diamond Springs Parkway/Missouri Flat Road – Westbound left and northbound left.
- Diamond Springs Parkway/Throwita Way – Eastbound left and westbound left.
- Diamond Springs Parkway/Diamond Road (SR-49) – Northbound left.
- Diamond Road (SR-49)/Pleasant Valley Road – Eastbound left.
- Pleasant Valley Road (SR-49)/Forni Road – Eastbound left.
- Pleasant Valley Road (SR-49)/SR-49 (South) – Westbound left.

Mitigation for each of these queue lanes was recommended by the Traffic Impact Analysis and the Supplemental Traffic Analysis and is included below. Implementation of Mitigation Measures TRANS-5b through 5f would ensure queuing impacts would be reduced to a less than significant level at the respective intersections.

Implementation of Mitigation Measure TRANS-5a (Option 1 from the Supplemental Traffic Analysis in Appendix L) would result in the occasional blocking of the inside southbound through lane on the

Missouri Flat Road/Eastbound US-50 ramp intersection, while accommodating nearly all of the northbound left-turn queue at the Missouri Flat Road/Westbound US-50 Ramp intersection. While acceptable delay and LOS are maintained, left-turn spill-back in excess of that experienced with the LOS mitigation would persist (refer to Table 5 of the Supplemental Traffic Analysis in Appendix L). As such, minor queuing issues remain at the southbound left turn from the Missouri Flat Road/Eastbound US-50 Ramp intersection. No acceptable mitigation is available to resolve the remaining queuing issue. As such, significant unavoidable impacts would remain.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-5a Prior to the issuance of building permits, the Project applicant, at the discretion of El Dorado County, shall be responsible for the modification of lane assignments on the Missouri Flat Road/US-50 interchange bridge structure to provide for a continuous northbound left turn lane at Missouri Flat Road/Westbound US-50 Ramp intersection thereby removing one of the southbound left-turn lanes at the Missouri Flat Road/Eastbound US-50 Ramp intersection. The applicant, at the discretion of El Dorado County, shall be responsible for the improvements in one of the following ways:

- Build the needed improvements and enter into a reimbursement agreement with El Dorado County;
- If the needed improvement is already built, pay a fair-share fee to El Dorado County; or
- If the needed improvement is not yet built, but the Project results in only marginal cause (as determined by the Director of El Dorado County Department of Transportation) and is included in the 10-year Capital Improvement Plan, pay fair-share fees to El Dorado County.

MM TRANS-5b Prior to the issuance of building permits, the Project applicant, at the discretion of El Dorado County, shall be responsible for the extension of the westbound left-turn lane to a total length of 500 feet and for extension of the dual northbound left-turn lanes at the intersection of Diamond Springs Parkway and Missouri Flat Road to a total length of 440 feet. The applicant, at the discretion of El Dorado County, shall be responsible for the improvements in one of the following ways:

- Build the needed improvements and enter into a reimbursement agreement with El Dorado County;
- If the needed improvement is already built, pay a fair-share fee to El Dorado County; or

- If the needed improvement is not yet built, but the Project results in only marginal cause (as determined by the Director of El Dorado County Department of Transportation) and is included in the 10-year Capital Improvement Plan, pay fair-share fees to El Dorado County.

MM TRANS-5c Prior to the issuance of building permits, the Project applicant, at the discretion of El Dorado County shall be responsible for the extension of the eastbound left-turn lane to a total length of 240 feet and for extension of the westbound left-turn lane at the intersection of Diamond Springs Parkway and Throwita Way to a total of 350 feet. The applicant, at the discretion of El Dorado County, shall be responsible for the improvements in one of the following ways:

- Build the needed improvements and enter into a reimbursement agreement with El Dorado County;
- If the needed improvement is already built, pay a fair-share fee to El Dorado County; or
- If the needed improvement is not yet built, but the Project results in only marginal cause (as determined by the Director of El Dorado County Department of Transportation) and is included in the 10-year Capital Improvement Plan, pay fair-share fees to El Dorado County.

MM TRANS-5d Prior to the issuance of building permits, the Project applicant, at the discretion of El Dorado County, shall be responsible for the extension of the dual northbound left-turn lanes to a total length of 375 feet at the intersection of Diamond Springs Parkway and Diamond Road (SR-49). The Project applicant, at the discretion of El Dorado County, shall be responsible for the improvements in one of the following ways:

- Build the needed improvements and enter into a reimbursement agreement with El Dorado County;
- If the needed improvement is already built, pay a fair-share fee to El Dorado County; or
- If the needed improvement is not yet built, but the Project results in only marginal cause (as determined by the Director of El Dorado County Department of Transportation) and is included in the 10-year Capital Improvement Plan, pay fair-share fees to El Dorado County.

MM TRANS-5e Prior to the issuance of building permits, the Project applicant, at the discretion of El Dorado County, shall be responsible for the conversion of the northbound right-turn lane to a shared through-right lane, and the modification of signal phasing as

appropriate at the intersection of Diamond Road (SR-49) and Pleasant Valley Road. The applicant, at the discretion of El Dorado County, shall be responsible for the improvements in one of the following ways:

- Build the needed improvements and enter into a reimbursement agreement with El Dorado County;
- If the needed improvement is already built, pay a fair-share fee to El Dorado County; or
- If the needed improvement is not yet built, but the Project results in only marginal cause (as determined by the Director of El Dorado County Department of Transportation) and is included in the 10-year Capital Improvement Plan, pay fair-share fees to El Dorado County.

MM TRANS-5f Prior to the issuance of building permits, and upon receiving the approval of Caltrans, the Project applicant shall provide fair-share fees to El Dorado County for the eastern realignment of the Forni Road approach at the Pleasant Valley Road (SR-49)/Forni Road intersection. Fair-share fees shall be used by the County to realign the Forni Road approach to the east to improve the southbound intersection approach angle and maximize the spacing between the Pleasant Valley Road (SR-49) and Forni Road intersection and the Pleasant Valley Road (SR-49) and SR-49 (South) intersection. The ultimate intersection configuration shall be at the discretion of Caltrans and El Dorado County DOT.

Level of Significance After Mitigation

Significant and unavoidable impact.

Offsite Improvements

The proposed offsite improvements are designed to alleviate congestion in the project area; impacts on traffic will be limited to construction activities. Prior to construction, a TMP will be prepared as required by Caltrans. The TMP will address all traffic-related aspects of construction, including but not limited to traffic handling in each stage of construction, pedestrian safety/access, and bicycle safety/access. Except for temporary off-peak lane closures, the same number of traffic lanes will be maintained on offsite roadway improvement areas during the construction period. Narrowed lanes may occur during construction and the roadway may be temporarily shifted to allow work on portions of the roadway.

While there may be temporary impacts to queuing as a result of narrowed lanes and potential lane closures during construction, such impacts are temporary in nature, and impacts to queuing as a result of offsite improvement construction activities would be considered less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Safety and Road Hazards

Impact TRANS-6:	The Project has the potential to substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
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Impact Analysis*Onsite Improvements***Vehicular Access**

The Proposed Project would construct four site access points: three on Diamond Springs Parkway and one on Diamond Road (SR-49). The main access to the project site would be located at the easternmost access point on Diamond Springs Parkway at its intersection with Throwita Way. Extensive level of service, delay, and queuing data for these access points have been previously discussed in this section. According to the TIA, the Proposed Project would have adequate access to and from both Diamond Springs Parkway and Diamond Road (SR-49).

However, as currently proposed, the Throwita Way site entrance approach from Diamond Springs Parkway (the main site access) is not stop-controlled at its onsite intersection with the main internal drive aisles. This onsite intersection will likely serve as the focal point of conflicting vehicle and pedestrian movement onsite. Further, the lack of traffic control would increase the likelihood of onsite vehicle queuing extending to Diamond Springs Parkway, resulting in a potentially unsafe intersection. Accordingly, mitigation is proposed to maximize the throat depth of the middle Diamond Springs Parkway driveway (right-in only), provide stop signs at the main internal drive aisles, and minimize pedestrian conflict through proper crosswalk identification.

Internal Circulation

Internal circulation within the Proposed Project's parking areas would consist of two-way aisles. Parking is proposed along the drive aisles at 90-degree angles. This design allows for efficient two-way circulation on all aisles. Drive aisles would be provided along all building frontages (Exhibit 3-5). These facilities align with the building orientations, parking supply, and access locations, and appear to be consistent with driver expectations as pertains to onsite connectivity. Drive aisles and parking configurations are based on requirements of the Zoning Ordinance.

Pedestrian routes would be located throughout the project site. Patterned paving would be used to demarcate pedestrian crossing areas in front of the retail buildings.

As indicated in the TIA, a review of the proposed project site plan shows that there is adequate internal circulation, and the overall layout of the site provides satisfactory vehicle circulation throughout the project site. Impacts would be less than significant.

Truck Access

Trucks serving the Proposed Project would be anticipated to use US-50, Missouri Flat Road, and Diamond Springs Parkway to reach the project site. These roadways are not located in residential areas and currently support truck traffic.

Trucks would enter the project site via the western most and eastern most access points on Diamond Springs Road. Trucks delivering to Major 2, Building P1, P2, P3, and P4 would enter the site at the westernmost access point from the proposed Parkway and continue south along the site's western boundary to access the loading areas. Trucks would then exit the DDRC site via the main (eastern most) entrance from the Parkway (Exhibit 3-5). Trucks delivering to Major 1 would enter the site from the proposed Parkway via the main entrance, utilize the truck turn area to access the loading docks, and then return to the Parkway via the same route. Impacts would be less than significant.

Roadway Safety

To analyze roadway safety the El Dorado County's 2007 Accident Location Study was used to determine which project study intersections and roadway segments experienced three or more accidents during the period between January 1 2005 and December 31, 2007. The Accident Location Study includes a countywide analysis of sites and determination of corrective actions. Table 4.11-22 provides a summary of the project study intersections and their selected actions as determined by the Accident Location Study.

Table 4.11-22: Project Area Sites Selected for Investigation

Intersection or Roadway Segment	Accident Rate ⁺	Identified Action
Missouri Flat Road at El Dorado Road	0.28	None Required
Missouri Flat Road from Plaza Dr to County Road 2233	2.78	Pending Improvement
Missouri Flat Road in vicinity of Golden Center Drive	0.78	None Required
Missouri Flat Road in vicinity of China Garden Road	0.77	None Required
Missouri Flat Road in vicinity of Enterprise Drive	0.51	None Required

Note:

⁺ # Accidents per Million Vehicles (MV) for single sites (intersections/curves), # Accidents per Million Vehicle Miles (MVM) for roadway sections.

Sources: Annual Accident Location Study 2007, County of El Dorado Department of Transportation, March 28, 2008; KHA, 2010.

According to the Accident Location Study, one site (Missouri Flat Road at El Dorado Road) was “previously identified, and [is] currently scheduled for improvement. It is anticipated that, upon completion, [this] improvement will substantially reduce the number of accidents.” Furthermore, the Accident Location Study indicates that the remaining four sites “do not require further review at this time. However, these sites will continue to be monitored and any subsequent increase in the frequency of accidents may necessitate further review and analysis.” Impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-6 Prior to approval of Improvement Plans and in conjunction with the Project’s approved traffic study, the Project applicant shall consult with a qualified traffic engineer to identify and implement measures to reduce potential queuing and pedestrian conflicts at the project sites main access point and drive aisle. The potential measures may include but are not limited to maximizing the throat depth of the main drive aisle, provision of stop signs for internal drive aisles intersecting the main drive aisle, and proper identification of crosswalks. Any measures implemented as a result of this mitigation shall not cause traffic queuing at the site’s main entrance to back up onto Diamond Springs Parkway. No stop sign shall be allowed on the southbound leg of the main entrance.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

The proposed offsite roadway improvements are designed to alleviate congestion and increase the access and safety of drivers in the project area. In general, safety and hazard impacts will be limited to times during construction activities. Prior to construction, a TMP will be prepared as required by Caltrans. The TMP will address all traffic-related aspects of construction, including but not limited to traffic handling in each stage of construction, pedestrian safety/access, and bicycle safety/access. Except for temporary off-peak lane closures, the same number of traffic lanes will be maintained on offsite roadway improvement areas during the construction period. Narrowed lanes may occur during construction and the roadway may be temporarily shifted to allow work on portions of the roadway.

While there may be temporary safety and roadway hazards as a result of narrowed lanes and potential lane closures during construction, such impacts are temporary in nature and such impacts as a result of offsite improvement construction activities would be considered less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Emergency Access

Impact TRANS-7: **The Proposed Project would not result in inadequate emergency access to the project site or its surroundings.**

Impact Analysis

Onsite Improvements

The Proposed Project's four access points would be a minimum of 30 feet wide, which would provide sufficient width for large emergency vehicles (e.g., fire engines).

The Proposed Project would be constructed after the implementation of the Diamond Springs Parkway, which, in combination with Diamond Road (SR-49), would provide efficient circulation in the project vicinity. The Proposed Project would remove the existing MRF's site access on Throwita Way, but would construct a new MRF access point on Lime Kiln Road that, upon completion, would meet all required specifications for emergency vehicle access to the MRF. As shown on Exhibit 3-2, a secondary, emergency-only access point would be constructed on the MRF site near the southwestern corner of the DDRC.

Both the El Dorado County Sheriff and the Diamond Springs/El Dorado Fire Protection District were consulted about the Proposed Project's impacts on public safety. Responses are provided in Appendix K. Neither agency indicated that emergency access would be impaired at the proposed project site.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

The proposed offsite roadway improvements are designed to alleviate congestion and increase the access and safety of drivers in the project area. In general, emergency access impacts will be limited to times during construction activities. Prior to construction, a TMP will be prepared. The TMP will address all traffic-related aspects of construction, including but not limited to traffic handling in each stage of construction, pedestrian safety/access, and bicycle safety/access. Except for temporary off-peak lane closures, the same number of traffic lanes will be maintained on offsite roadway improvement areas during the construction period. Narrowed lanes may occur during construction and the roadway may be temporarily shifted to allow work on portions of the roadway.

While there will be temporarily narrowed lanes and potential lane closures during construction, there would be no complete roadway closures enabling continued emergency access; thus, impacts would be considered less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Parking

Impact TRANS-8: The Proposed Project would provide adequate off-street parking.

Impact Analysis*Onsite Improvements*

Based on the proposed site plan shown in Exhibit 3-5, the Proposed Project would provide 1,279 off-street parking spaces. As determined in consultation with the El Dorado County Planning Department, the DDRC would fall under the category of a regional shopping center and would therefore be required by the County's Ordinance Code to provide one parking space for every 300 square feet of gross floor area (3.33 spaces per 1,000 square feet). As shown in Table 4.11-23, the Proposed Project would provide 344 spaces more than required by the Ordinance Code. Therefore, adequate off-street parking would be provided. Impacts would be less than significant.

Table 4.11-23: Parking Analysis

Project Square Footage	Municipal Code Parking Requirement	Parking Spaces		
		Required	Provided	Difference
280,515	3.33 spaces/1,000 square feet	935	1,279	344
Source: MBA, 2010.				

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

The proposed offsite roadway improvements are designed to alleviate congestion by creating free right-turn lanes and by increasing the access and safety of drivers in the project area. In general, no off-street parking would be required as a part of these roadway improvements; therefore, no impact would occur.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No impact.

Construction Traffic, Staging, and Parking

Impact TRANS-9: Construction activities associated with the Project would have the potential to adversely affect circulation and parking on nearby roadways.

Impact Analysis

Onsite Improvements

This analysis evaluates the Proposed Project's impacts associated with construction traffic, staging, and parking.

Project construction is anticipated to take twelve months to complete and would require regular deliveries of equipment and materials to the project site, as well as daily trips by construction

workers. These activities have the potential to create congestion on nearby roadways. Note that all construction parking and materials and equipment storage would occur onsite or in areas designated and allowed for such use as arranged by the Project applicant.

Much of the construction traffic, especially trucks and equipment delivery vehicles, would be expected to travel via US-50, Missouri Flat Road, and Diamond Springs Parkway. The Proposed Project is located within a commercial and industrial area of El Dorado County that currently experiences a significant number of truck movements on a daily basis; therefore, these routes would be adequate to support construction traffic associated with the Proposed Project. The routing would also avoid residential areas and would minimize potential congestion on the local street system.

Construction activities related to the implementation of offsite roadway improvements would likely result in reduced traffic speeds in the vicinity of the affected intersections and roadway segments. In some cases, lane closures may be required during construction. However, these impacts would be temporary and therefore less than significant.

The majority of the activities associated with constructing the proposed DDRC and MRF site access would take place in an area where motor vehicle travel does not presently occur. Traffic accessing the MRF site would be rerouted once new site access is constructed. Prior to the completion of the MRF access, Throwita Way, the current MRF access route, would not be disturbed. The removal of Throwita Way at its intersection with Diamond Springs Parkway and the construction of the new MRF access may result in temporary lane closures on Diamond Springs Parkway and Lime Kiln Road, respectively. Accordingly, mitigation is proposed requiring the Project applicant to implement a Construction Traffic Control Plan during construction activities to minimize impacts on surrounding roadways and nearby parking areas. The implementation of this mitigation measure would reduce potential impacts to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-9 Prior to issuance of a grading permit, the Project applicant shall submit a Construction Traffic Control Plan to El Dorado County for review and approval. The plan shall identify the timing and routing of all major construction equipment and materials deliveries to avoid potential traffic congestion and delays on the local street network and MRF site access, and to encourage the use of US-50, Missouri Flat Road, and Diamond Springs Parkway. If necessary, construction equipment and materials deliveries shall be limited to off-peak hours (e.g., mornings or evenings) to avoid conflicts with local traffic circulation. The plan shall also identify suitable locations for construction worker parking and materials and equipment storage.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

The proposed offsite roadway improvements are designed to alleviate congestion and increase the access and safety of drivers in the project area. In general, safety and hazard impacts will be limited to times during construction activities. Prior to construction, a TMP will be prepared. The TMP will address all traffic-related aspects of construction, including but not limited to traffic handling in each stage of construction, pedestrian safety/access, and bicycle safety/access. Except for temporary off-peak lane closures, the same number of traffic lanes will be maintained on offsite roadway improvement areas during the construction period. Narrowed lanes may occur during construction and the roadway may be temporarily shifted to allow work on portions of the roadway.

While there may be temporary traffic congestion as a result of narrowed lanes and potential lane closures during construction in addition to implementing Mitigation Measure TRANS-9 above, such impacts are temporary in nature, and such impacts as a result of offsite improvement construction activities would be considered less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

Implement Mitigation Measure TRANS-9.

Level of Significance After Mitigation

Less than significant impact.

Alternative Transportation

Impact TRANS-10: The Proposed Project would not conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Impact Analysis

Onsite Improvements

Public Transit

The El Dorado County Transit Authority (El Dorado Transit) provides general public transportation services within the greater Placerville area, inclusive of Diamond Springs and the project site. Currently, the El Dorado Transit local bus system provides six local routes near the project area, including the Placerville Eastbound and Westbound, Pollock Pines Eastbound and Westbound, Diamond Springs, Cameron Park, Folsom Lake College, and Grizzly Flat.

As a part of the Diamond Springs Parkway's construction, bus turnouts will be constructed at the northwest and southeast corners of the Diamond Springs Parkway and Throwita Way intersection. A

third bus turnout would be provided along northbound Diamond Road (SR-49), north of the intersection with Black Rice Road. As a condition of approval for the Proposed Project, a bus turnout would be provided at the northwest corner of the Diamond Road (SR-49) and Lime Kiln Road intersection. Service levels at these bus stops would be determined by El Dorado Transit upon completion of the Parkway.

It is assumed that some customers and employees would travel to the DDRC project site by bus and that the bus stops would be adequate to serve the Proposed Project's needs.

The 2006-2008 American Community Survey completed by the U.S. Census Bureau, indicated that approximately 1.8 percent of El Dorado County residents utilize public transportation as a means of travel to work. While employment levels of the DDRC are currently unknown, it is unlikely that 1.8 percent of employees would result in significant impacts to local bus routes. Considering that the Proposed Project would be a regional shopping center and would attract customers from the surrounding rural areas, the use of a vehicle to reach the project site and transport goods would likely be the most common choice of transportation and would limit the number of customers regularly accessing the site via public transportation.

Based on these characteristics, the Proposed Project would not impair access to bus operations in the project vicinity. Impacts would be less than significant.

Bicycles

A Class I bike lane is located north of the project site, known as the El Dorado Multi-Use Trail or EDMUT. This Class I bike lane will be connected to Class II bike lanes to be located along Diamond Springs Parkway that would serve the Proposed Project. Class II Bike Lanes are currently in place east of the project site, along Missouri Flat Road from approximately Mother Lode Drive to Golden Center Drive.

As a part of the Proposed Project, a path would be constructed between the EDMUT and the Diamond Springs Parkway along the western side of Parcel 11. Pedestrians and bicyclists would be able to exit the EDMUT via the proposed path on Parcel 11, connect to the sidewalk or Class II bike lanes on the northern side of the Diamond Springs Parkway, and then use the crosswalk at the intersection of Diamond Springs Parkway and Throwita Way to access the DDRC. To further facilitate bicycle access, the Proposed Project would include bicycle storage facilities located throughout the project site. The provision of these bicycle facilities would ensure that adequate access and storage is available. Through these connections to the existing and future bicycle transportation network, the Proposed Project would provide continuity with adjacent projects, schools, parks, and other public facilities. The Proposed Project would not conflict with the Bicycle Transportation Plan. Impacts would be less than significant.

Pedestrians

The Proposed Project would construct sidewalks along the Project's frontages with Diamond Springs Parkway and Diamond Road (SR-49). Direct pedestrian connections would be provided from the sidewalks to major store entrances. All pedestrian facilities would comply with the applicable provisions of the Americans with Disabilities Act (ADA) and, therefore, would allow for convenient and safe access for all persons. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Offsite Improvements

The proposed offsite roadway improvements are designed to alleviate congestion and increase the access and safety of drivers in the project area. In general, safety and hazard impacts will be limited to times during construction activities. Prior to construction, a TMP will be prepared. The TMP will address all traffic-related aspects of construction, including but not limited to traffic handling in each stage of construction, pedestrian safety/access, and bicycle safety/access. Except for temporary off-peak lane closures, the same number of traffic lanes will be maintained on offsite roadway improvement areas during the construction period. Narrowed lanes may occur during construction and the roadway may be temporarily shifted to allow work on portions of the roadway. El Dorado Transit would be able to continue providing transit services to riders in the offsite improvement areas.

While there may be temporary impacts as a result of narrowed lanes and potential lane closures during construction, such impacts are temporary in nature and would be considered less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

SECTION 5: ALTERNATIVES TO THE PROPOSED PROJECT

In accordance with CEQA Guidelines Section 15126.6, this Environmental Impact Report (EIR) contains a comparative impact assessment of alternatives to the Proposed Project. The primary purpose of this section is to provide decision makers and the public with a reasonable number of feasible project alternatives that could attain most of the basic project objectives, while avoiding or reducing any of the Project's significant adverse environmental effects. Important considerations for these alternatives analyses are noted below (as stated in CEQA Guidelines Section 15126.6).

- An EIR need not consider every conceivable alternative to a project.
- An EIR should identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process.
- Reasons for rejecting an alternative include:
 - Failure to meet most of the basic project objectives;
 - Infeasibility; or
 - Inability to avoid significant environmental effects.

5.1 - Significant Unavoidable Impacts

The Proposed Project would result in the following significant unavoidable impacts:

- **Air Quality Plan Consistency (Impact AIR-1):** The Proposed Project is inconsistent with the applicable Air Quality Management Plan. Mitigation is identified that would reduce operational emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x); however, the necessary trip and vehicle miles traveled reductions are not feasible for the Project. Therefore, the residual significance would be significant and unavoidable.
- **Regional Air Quality Impact Contribution (Impact AIR-3).** The Proposed Project would also exceed the operational project-level threshold of significance for ROG and NO_x, thereby contributing considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standards. Mitigation is identified that would reduce operational emissions of ROG and NO_x; however, the necessary trip and vehicle miles traveled reductions are not feasible for the Project. Therefore, the residual significance would be significant and unavoidable.
- **Greenhouse Gas Generation (Impact AIR-6).** The Proposed Project would generate significant levels of greenhouse gases from project operations. Mitigation is identified that would reduce operational emissions of greenhouse gases; however, the necessary trip and vehicle miles traveled reductions are not feasible for the Project. Therefore, the residual significance would be significant and unavoidable.

- **Greenhouse Gas Plan Consistency (Impact AIR-7).** The Proposed Project would conflict with California's Scoping Plan, adopted for the purposes of reducing greenhouse gas emissions in the state. Mitigation is identified that would reduce operational emissions of greenhouse gases; however, the necessary trip and vehicle miles traveled reductions are not feasible for the Project. Therefore, the residual significance would be significant and unavoidable.
- **Cumulative (2025) Plus Project Intersection Conditions (Impact TRANS-3).** The Proposed Project would increase the delay for the eastbound approach at the Missouri Flat Road and Enterprise Drive intersection through the addition of traffic on Missouri Flat Road, thereby confounding the existing unacceptable LOS F in the PM peak-hour. Construction of a signal at the intersection would mitigate the eastbound delay, but would result in a significant southbound queuing issue on Missouri Flat Road. As such, implementation of a signal at this intersection is not an acceptable option for mitigation and no other feasible mitigation is available. Therefore, impacts would be significant and unavoidable.
- **Queuing (Impact TRANS-5).** The Proposed Project would result in unacceptable queuing at the Missouri Flat Road/Eastbound US-50 ramp and Missouri Flat Road/Westbound US-50 ramp intersections. Mitigation is proposed; however, minor queuing issues would remain at the southbound left-turn lane from the Missouri Flat Road/Eastbound US-50 Ramp intersection. No acceptable mitigation is available to resolve the remaining queuing issue. Therefore, the residual significance would be significant and unavoidable.

5.2 - Alternatives to the Proposed Project

The four alternatives to the Proposed Project analyzed in this section are as follows:

- **No Project Alternative:** As required by CEQA Guidelines Section 15126.6(e), a No Project Alternative is included in this analysis under which the project site would remain in its existing condition and development as proposed in this Draft EIR would not occur. The existing land use and zoning designations would remain.
- **Industrial Project Alternative:** The project site would be developed with a 280,000-square-foot industrial complex consisting of nine buildings. The industrial complex would be constructed in accordance with the existing Industrial zone development standards regarding parking, landscaping, and setbacks. The floor-area ratio (FAR) would be 0.21. Proposed uses would include storage; manufacturing, processing, and repair services; general office; and wholesale/sales floor/showroom.
- **Reduced Density Alternative:** The project site would be developed with 210,386 square feet of retail space, representing a 25-percent reduction compared with the Proposed Project. The 25-percent reduction in square footage would be applied proportionately to each of the proposed retail pads. Additional landscaping and pedestrian facilities would be constructed in

place of reduced retail and parking areas. A new land use designation and rezone to General Commercial (CG) would be requested.

- **Mixed-Use Center Alternative:** The Proposed Project would consist of a 280,000-square-foot mixed-use center featuring 140,000 square feet of retail uses, 35,000 square feet of office uses, and 105 apartments (1,000 square feet each). The Major 1 retail space would not be developed under this alternative. A new land use designation and rezone would be requested to Commercial (C) and a Planned Development (PD) overlay would be implemented to adopt a Development plan. A Tentative Parcel Map (TPM) would also be included.

The three alternatives to the Proposed Project are analyzed below. These analyses compare the Proposed Project and each individual project alternative. In several cases, the description of the impact may be the same under each alternative when compared with the CEQA Thresholds of Significance (i.e., both the Project and the alternative would result in a less than significant impact). The actual degree of impact may be slightly different between the Proposed Project and each alternative, and this relative difference is the basis for a conclusion of greater or lesser impacts.

5.3 - Project Objectives

As stated in Section 3, Project Description, the objectives of the Proposed Project are to:

- Develop a new retail center that serves local residents and visitors with essential goods and services.
- Create new job opportunities for local residents.
- Promote increased economic growth and development that is consistent with the policies of the El Dorado County General Plan.
- Generate additional sales tax and property tax revenues for El Dorado County.
- Utilize existing infrastructure by developing a retail center on an infill site in the vicinity of existing commercial uses.

5.4 - Alternative 1 - No Project Alternative

Under the No Project Alternative, the proposed development would not occur. The separately proposed and approved Diamond Springs Parkway would be constructed north of the project site; however, no retail development would occur and the project site would remain in its existing condition.

5.4.1 - Impact Analysis

Aesthetics, Light, and Glare

The No Project Alternative would maintain the project site in its existing condition. The existing visual character of the project site would remain unchanged. In addition, no new sources would be introduced to the project site. The new Material Recovery Facility (MRF) access would not be constructed. Accordingly, this alternative would avoid the need to implement the Proposed Project's mitigation measure that pertains to views of the proposed MRF access. Therefore, the No Project Alternative would have fewer impacts on aesthetics, light, and glare than the Proposed Project.

Air Quality

The No Project Alternative would maintain the project site in its existing condition and general plan designation; therefore, no potential inconsistencies with the applicable Air Quality Management Plans (AQMPs) would occur. The Proposed Project was found to conflict with the AQMPs; therefore, the No Project Alternative would be considered more beneficial.

No existing structures would be removed and no new structures would be developed. Accordingly, no construction emissions would occur and this alternative would avoid the need to mitigate for related air quality impacts. Although the Proposed Project's construction emissions were found to be less than significant after mitigation, this alternative is considered more beneficial because no construction emissions would occur.

The No Project Alternative would allow the project site to be developed in the future consistent with the existing General Plan Industrial designation, which would generate substantially fewer daily vehicular trips than the Proposed Project. As such, this alternative would emit fewer operational emissions than the Proposed Project. Although this alternative would not directly result in trip generation, future industrial land uses would likely generate heavy-duty truck trips, which emit diesel particulate matter (DPM). However, the degree of DPM from a future, as yet unanticipated project is speculative. However, overall trip generation and, therefore, operational emission would be less than the Proposed Project. As such, this alternative would be more beneficial.

From a greenhouse gas emissions perspective, the No Project Alternative avoids construction emissions and maintains the lower-intensity Industrial land use designation of the project site. Therefore, this alternative would not create a net increase in greenhouse gas emissions above the baseline condition and, therefore, avoids the need to mitigate for such impacts. As such, this alternative would be more beneficial.

In summary, the No Project Alternative would have fewer air quality impacts than the Proposed Project.

Biological Resources

The No Project Alternative would maintain the project site in its existing condition. No existing vegetation, drainage features, or trees would be removed. Accordingly, this alternative would avoid the need to mitigate for impacts on nesting birds, wetlands, or tree removal. Therefore, the No Project Alternative would have fewer biological resources impacts than the Proposed Project.

Cultural Resources

The No Project Alternative would maintain the project site in its existing condition and no ground disturbance would occur. Accordingly, this alternative would avoid the need to mitigate for potential impacts to undiscovered cultural resources. Therefore, the No Project Alternative would have fewer cultural resources impacts than the Proposed Project.

Geology, Soils, and Seismicity

The No Project Alternative would maintain the project site in its existing condition. No new structures would be constructed. Accordingly, this alternative would avoid the need to mitigate for impacts associated with strong ground shaking, erosion, and expansive soils. Therefore, the No Project Alternative would have fewer geology, soils, and seismicity impacts than the Proposed Project.

Hazards and Hazardous Materials

The No Project Alternative would maintain the project site in its existing condition. The existing structures and soils on the project site that potentially contain lead, polychlorinated biphenyls (PCBs), or industrial chemicals would not be disturbed and therefore no risk of exposure would occur. Construction and operational activities, including the operation of a gas station, involving the use and transport hazardous materials would not occur. Furthermore, the stormwater detention basin would not be constructed and would not require mitigation to ensure proper safety modifications are implemented. Therefore, the No Project Alternative would have fewer hazard and hazardous materials impacts than the Proposed Project.

Hydrology and Water Quality

The No Project Alternative would maintain the project site in its existing condition. Accordingly, construction or operation activities would not occur and would not have the potential to cause stormwater pollution. Therefore, the No Project Alternative would have fewer hydrology and water quality impacts than the Proposed Project.

Land Use

The No Project Alternative would maintain the project site in its existing condition for the foreseeable future. No General Plan Amendment, rezone, Planned Development overlay, or Development Plan would be sought, and the parcels comprising the project site would continue to be designated. Future development may occur on the project site in accordance with existing land use and zoning

designations. As indicated by the El Dorado County Zoning Code, uses allowed on land zoned Industrial include any use allowed or permitted by right in Commercial zones, excluding residential uses. Allowed uses include but are not limited to industrial uses, offices, banks, studios, restaurants, retail services, service stations, entertainment services, appliance stores, antique stores, and health care facilities. Each of the four project parcels could individually be developed to a FAR of 0.85, which would far exceed the FAR of the Proposed Project, resulting in higher traffic volumes. However, identifying the exact type and density of development that could potentially occur would be speculative. Nonetheless, the Project could eventually be developed according the existing General Plan and Zoning designations. Accordingly, the No Project Alternative would have fewer land use impacts than the Proposed Project.

Noise

The No Project Alternative would maintain the project site in its existing condition. No existing structures would be removed and no new structures would be developed. Accordingly, no construction noise would occur and this alternative would avoid the need to mitigate for such noise. The No Project Alternative would maintain the existing land uses on the project site, which generate less stationary and vehicular noise than the Proposed Project. Furthermore, noise impacts to the single residence near the proposed MRF access would occur. Therefore, the No Project Alternative would have fewer noise impacts than the Proposed Project.

Public Services and Utilities

The No Project Alternative would maintain the project site in its existing condition. No additional demand for fire protection, police protection, potable water, or energy would be created, nor would additional generation of wastewater, stormwater, or solid waste occur. Although the Proposed Project's potential public services and utilities impacts were found to be less than significant after the implementation of mitigation, this alternative would avoid increased demand on public service and utility providers and, therefore, would not have the potential to create any adverse impacts. Therefore, the No Project would have fewer impacts on public services and utilities than the Proposed Project.

Transportation

The No Project Alternative would maintain the project site in its existing condition. The Diamond Springs Parkway would be constructed as contemplated by El Dorado County. No additional vehicle trips would be added to the local roadway network as a result of the Project. Accordingly, this alternative would avoid the Proposed Project's impacts associated with intersection, roadway segment and queuing operations, and no offsite improvements would be necessary. Therefore, the No Project Alternative would have fewer impacts on transportation than the Proposed Project.

5.4.2 - Conclusion

The No Project Alternative would avoid the Proposed Project's potentially significant impacts and have less impact on all environmental topical areas. This alternative would not advance any of the project objectives. Moreover, this alternative would not realize the Proposed Project's benefits of infill development, increased retail opportunities, and new tax revenues.

5.5 - Alternative 2 – Industrial Alternative

The Industrial Alternative consists of developing a 280,000-square-foot industrial complex with a total of seven buildings. The industrial complex would be constructed in accordance with the existing Industrial zone development standards regarding height, parking, landscaping, and setbacks. Similar to the Proposed Project, utility connections would be required, and the drainage to the west of the project site would be impacted. The MRF access realignment would be implemented as part of this alternative. The FAR would be 0.21. Proposed uses would include storage; manufacturing, processing, and repair services; general office; and wholesale/sales floor/showroom.

The purpose of the Industrial Alternative is to provide an alternative comparable to the Proposed Project that would be constructed according to existing land use designations. This alternative would require a zone change from Industrial (I) to Industrial-Planned Development (I-PD).

Table 5-1 summarizes the Industrial Alternative

Table 5-1: Industrial Alternative Summary

Scenario	Square Footage
Industrial Alternative	
Storage	112,000
Manufacturing, Processing, and Repair Services	70,000
General Office	56,000
Wholesale/Sales floor/Showroom areas	42,000
Total	280,000
Proposed Project	280,515
Difference	(515)
Source: MBA, 2010.	

5.5.1 - Impact Analysis

Aesthetics, Light, and Glare

This alternative would result in the development of a 280,000-square-foot industrial complex on the project site. The appearance of the resulting industrial complex would be that of a planned development containing storage, industrial, repair, office, and wholesale uses. Because of similar

square footage, building massing would be similar to that of the Proposed Project. The Industrial Alternative would result in a FAR of 0.21, slightly smaller than the Proposed Project's FAR of 0.23. All buildings would be less than 25 feet in height in accordance with the proposed Industrial-Planned Development (I-PD) zoning standards. Mitigation similar to that of the Proposed Project would be required to reduce visual impacts of the MRF access realignment. Exterior lighting fixtures would be installed and would be required to minimize unwanted light spillover. Because this alternative would result in an overall visual change comparable to that of the Proposed Project, impacts to aesthetics, light, and glare would be similar to the Proposed Project.

Air Quality

This alternative would result in the development of a 280,000-square-foot industrial complex. Construction activities would be similar to the Proposed Project and would result in a comparable amount of pollutant emissions. Similar to the Proposed Project, this alternative would require mitigation to ensure construction emissions are below El Dorado County Air Quality Management District's (EDAQMD's) thresholds.

From an operational emissions perspective, this alternative would generate 9,034 fewer daily trips relative to the Proposed Project, as shown in Table 5-3 below. This would result in fewer emissions of criteria pollutants on a daily basis. As shown in Table 5-2, this alternative would be less than significant for daily operational emissions. Please note, the emissions analysis utilized the default fleet mix for the Mountain Counties Air Basin year 2012, and did not adjust the number of trucks in the assumed fleet. Because the reduction in trips would result in less operational emissions, this alternative would have less severe impacts than the Proposed Project.

Table 5-2: Industrial Alternative Operational Emissions

Source	Daily Emissions (pounds per day)	
	ROG	NO _x
Summer		
Area Sources	1.82	0.83
Mobile Sources	14.87	13.64
Maximum Daily for Summer	16.69	14.47
Winter		
Area Sources	1.70	0.81
Mobile Sources	13.83	20.46
Maximum Daily for Winter	15.53	21.27
EDAQMD Threshold of Significance	82	82
Significant Impact?	No	No
Notes: Year 2012 Analysis. Incorporates project design features and locational measures that reduce project emissions. ROG = reactive organic gases NO _x = nitrogen oxides Source: MBA, 2011.		

Similar to the Proposed Project, this alternative would not expose surrounding sensitive receptors to substantial pollutant concentrations associated with air toxics (e.g. diesel particulate matter).

Finally, this alternative would result in substantially less greenhouse gas emissions relative to the Proposed Project because the majority of the Project's greenhouse gas inventory would be generated by mobile sources. In addition, this Project would not result in a net increase over what would be constructed under the current General Plan designation of Industrial; therefore, this alternative would still result in less than significant impacts from greenhouse gases and would result in less severe impacts than the Proposed Project. Therefore, this alternative would have fewer air quality impacts than the Proposed Project.

Biological Resources

This alternative would result in the removal of existing vegetation on the project site. Ground-disturbing activities would occur on all portions of the project site. Accordingly, this alternative would have the potential to impact special-status species (such as nesting birds) and riparian habitat, and would be subject to the County's Oak Woodland Management Plan. Similar to the Proposed Project, this alternative would require mitigation that involves pre-construction surveys for special-status species and compliance with the Oak Woodland Management Plan. With the implementation of these mitigation measures, impacts on biological resources would be reduced to a less than significant level. Because ground-disturbing activities under this alternative would be comparable to those of the Proposed Project, impacts to biological resources would be similar to the Proposed Project.

Cultural Resources

This alternative would result in ground-disturbing activities similar to the Proposed Project. As such, it would have the potential to damage or destroy undiscovered cultural resources or burial sites. Mitigation similar to that of the Proposed Project would be implemented to ensure that undiscovered cultural resources would not be adversely affected by this alternative's construction activities. Therefore, this alternative would have cultural resources impacts similar to the Proposed Project.

Geology, Soils, and Seismicity

This alternative would result in the development of a 280,000-square-foot industrial complex. The structures developed under this alternative would be required to implement mitigation similar to the Proposed Project to reduce potential impacts related to corrosive soils and non-engineered fill to a less than significant impact. Construction activities associated with this alternative would result in ground disturbance that could create erosion. Mitigation similar to that of the Proposed Project would be required to ensure that standard stormwater quality control measures are implemented to reduce potential erosion impacts to a level of less than significant. Therefore, this alternative would have geology, soils, and seismicity impacts similar to those of the Proposed Project.

Hazards and Hazardous Materials

This alternative would result in construction activities similar to the Proposed Project. The project site contains past and present uses that could potentially result in the exposure of persons and the environment to hazardous materials including lead, PCBs, and industrial chemicals. Mitigation similar to that of the Proposed Project would be required to reduce potential impacts to less than significant. As with the Proposed Project, project construction and operation activities may involve the use of and transport of hazardous materials; however, proposed uses included in the Industrial Alternative would be more likely to regularly use, produce, or transport hazardous materials than the Proposed Project's retail uses. Similar to the Proposed Project, this alternative would be required to comply with all applicable federal, state, and local regulations to ensure humans and the environment are not exposed to hazardous materials. Nonetheless, the Industrial Alternative would likely result in a higher level of onsite hazardous materials. Therefore, this alternative would have hazards and hazardous material impacts greater than those of the Proposed Project.

Hydrology and Water Quality

This alternative would result in construction activities on the same acreage as the Proposed Project. Construction activities would result in ground disturbance that could cause stormwater pollution. Operational activities may also cause stormwater pollution. Mitigation similar to that of the Proposed Project would be implemented to ensure that standard stormwater quality control measures are implemented during construction and operations to reduce potential impacts to a level of less than significant. However, because of the proposed industrial type uses and their potential use of hazardous materials, additional stormwater protection may be required to ensure that water quality is properly maintained and protected in relation to the industrial uses. As such, this alternative would have hydrology and water quality impacts greater than those of the Proposed Project.

Land Use and Planning

The Industrial Alternative would develop an Industrial Complex on the project site. Unlike the Proposed Project, this alternative would not require a General Plan Amendment. However, it would require a rezone from Industrial (I) to Industrial-Planned Development (I-PD), a development plan, and a tentative parcel map creating seven parcels. The Industrial Alternative would abide by applicable regulations set forth in the El Dorado County Ordinance Code, including those relating to parking, landscaping, and yard setbacks. Similar to the Proposed Project, this alternative would be constructed in accordance with the Missouri Flat Design Guidelines. Because this Project would not require a General Plan Amendment and would require a minor zone change from Industrial (I) to Industrial-Planned Development (I-PD), land use impacts resulting from this alternative would be less than those of the Proposed Project.

Noise

The Proposed Project was found to have the potential to expose a nearby residential land use to excessive construction, operational, and offsite traffic noises as well as an increase in temporary or

periodic increases in ambient noise levels above accepted standards. These effects were determined to be less than significant with the implementation of mitigation for the Proposed Project.

The Industrial Alternative would result in the development of a 280,000-square-foot industrial complex at the project site. Construction would likely be similar in nature to the Proposed Project. Mitigation similar to that of the Proposed Project would be required to mitigate construction noise impacts to a less than significant level. Construction and operational vibration would occur at similar distances from the nearest residences; however, unlike the Proposed Project, groundborne vibration impacts may be greater because of the industrial type uses proposed. As such, this alternative may require additional mitigation to ensure vibration impacts are less than significant.

Operational activities of the Industrial Alternative would likely involve a greater number of truck deliveries, loading dock operations, mechanical equipment usage, and other industrially related noise producing activities. As such, additional mitigation may be required to ensure noise standards are not exceeded.

Similar to the Proposed Project, the vehicles utilizing the realigned MRF access would still result in operational noise impacts. Mitigation similar to that of the Proposed Project would be implemented to ensure operational noise impacts would be less than significant.

This alternative would result in 9,034 fewer daily trips than the Proposed Project and, therefore, would result in a corresponding decrease in offsite vehicular noise. The Proposed Project's offsite vehicular noise impacts were found potentially significant at a single location. Because this alternative would not reduce vehicle trips along the realigned MRF access point, mitigation similar to that included in the Proposed Project would be required to reduce impacts to less than significant. However, this alternative would result in less roadway noise in other areas, due to its overall decrease in traffic levels.

In summary, this alternative would be likely to generate more onsite operational noise, but less offsite vehicular noise than the Proposed Project. Because the project site is located in an area dominated by industrial type uses, increases in operational noise levels would not be likely to result in significant and unavoidable impacts. Because of this and the reduction in offsite vehicular noise, this alternative would have fewer noise impacts than the Proposed Project.

Public Services and Utilities

This alternative would result in a negligible (515-square-foot) decrease in building square footage compared with the Proposed Project. Similar to the Proposed Project, a Facility Report Plan would be submitted to the El Dorado Irrigation District to address the expansion and use of water and wastewater facilities. Because a similar amount of square footage, the Industrial Alternative would be expected to result in a similar demand for police and fire protection. However, consumption of water and energy, and generation of wastewater and solid waste may be greater than the Proposed

Project, depending on the types of facilities located within the Industrial Complex. Therefore, this alternative would have greater impacts on public services and utilities than the Proposed Project.

Transportation

Trip generation for this alternative is provided in Table 5-3. As shown in the table, this alternative would generate 9,034 fewer daily trips, 91 fewer weekday morning peak-hour trips, and 765 fewer weekday afternoon peak-hour trips. While this Project would result in substantially fewer trips than the Proposed Project, it would still contribute additional vehicle trips to the intersections, roadway segments, and queuing operations that operate at unacceptable levels. Mitigation similar to that of the Proposed Project would be implemented to reduce impacts to a less than significant level, albeit this alternative may not require all mitigations required of the Proposed Project.

Table 5-3: Industrial Alternative Trip Generation

Scenario	Component	Daily Trips	AM Peak-Hour Trips	PM Peak-Hour Trips
Industrial Alternative	Storage – 112.000 square feet (ITE Code 151)	428	82	82
	Manufacturing, Processing, and Repair Services - 70.000 square feet (ITE Code 140)	267	51	51
	General Office – 56.000 square feet (ITE Code 140)	214	41	41
	Wholesale/Sales Floor/Showroom – 42.000 square feet (ITE Code 140)	160	31	31
	Total Trip Generation	1070	205	205
Proposed Project	Total Adjusted Trip Generation	10,104	296	970
Difference	Total Adjusted Trip Generation	(9,034)	(91)	(765)
Notes: Square footages represented in units of 1,000 (for example, 150,000 = 150.000) Trip values rounded to nearest whole number Source: EL Dorado County, 2011; KHA, 2011; MBA, 2011.				

This alternative would provide off-street vehicular parking spaces as required by the development standards of the municipal code for Industrial (I) zones. Similar to the Proposed Project, this alternative would be served by the El Dorado County Transit Authority via two bus stops on Diamond Springs Road. Finally, this alternative would implement mitigation similar to the Proposed Project to ensure potential impacts related to construction traffic and parking are less than significant.

In summary, this alternative would have fewer impacts on transportation than the Proposed Project.

5.5.2 - Conclusion

The Industrial Alternative would have fewer impacts to air quality, land use, noise, and transportation, and greater impacts to hazards and hazardous materials, hydrology and water quality, and public services and utilities. However, this alternative would not further all of the project objectives to the same degree as the Proposed Project. For example, it would not develop a new retail center and would not be likely to generate the same level of additional sales tax as the Proposed Project.

5.6 - Alternative 3 - Reduced Density Alternative

The Reduced Density Alternative consists of developing 210,386 square feet of retail space on the project site (70,129 square feet less than the Proposed Project). The 25-percent reduction in square footage would be applied proportionately to each of the proposed retail pads. Additional landscaping and pedestrian facilities would be constructed in place of reduced retail and parking areas. Similar to the Proposed Project, utility connections would be required, and the drainage to the west of the project site would be impacted. The MRF access realignment would be implemented as a part of this alternative.

This alternative would have vehicular access points identical to the Proposed Project. This alternative would provide 959 off-street parking spaces. This represents a 320-space (or 25-percent) reduction in vehicle parking compared with the Proposed Project. The removed parking spaces would be replaced with additional landscaping and pedestrian facilities.

The purpose of the Reduced Density Alternative is to reduce trip generation and building square footage, which would lessen potential impacts associated with air quality, noise, public services and utilities, and transportation. Table 5-4 summarizes the Reduced Density Alternative.

Table 5-4: Reduced Density Alternative Summary

Scenario	Square Footage
Reduced Density Alternative	210,386
Proposed Project	280,515
Difference	(70,129)
Source: MBA, 2010.	

5.6.1 - Impact Analysis

Aesthetics, Light, and Glare

This alternative would result in the development of a 210,386-square-foot retail center. The appearance of the resulting retail center would be similar to that of the Proposed Project. Building massing would be slightly less than the Proposed Project; however, the underlying change in visual character would be similar. Additional landscaping would be provided in areas where building square footage and parking would be reduced. Mitigation similar to that of the Proposed Project would be

required to reduce visual impacts of the MRF access realignment. Exterior lighting fixtures would be installed and would be required to minimize unwanted light spillover. Because this alternative would result in an overall visual change comparable to that of the Proposed Project, impacts to aesthetics, light, and glare would be similar to those of the Proposed Project.

Air Quality

This alternative would result in the development of a 210,386-square-foot retail center. Construction activities would be similar to the Proposed Project and would result in a comparable amount of pollutant emissions. Similar to the Proposed Project, this alternative would require mitigation to ensure construction emissions are below El Dorado County Air Quality Management District's (EDAQMD's) thresholds.

From an operational emissions perspective, this alternative would generate 2,226 fewer daily trips relative to the Proposed Project, as shown in Table 5-5 below. This would result in fewer emissions of criteria pollutants on a daily basis. Similar to the Proposed Project, this alternative would require mitigation to reduce potentially significant daily operational emissions. Although this alternative would remain significant and unavoidable for daily operational emissions, the reduction in trips would result in less operational emissions and therefore, would have less severe impacts.

Similar to the Proposed Project, this alternative would not expose surrounding sensitive receptors to substantial pollutant concentrations associated with air toxics (e.g. diesel particulate matter).

Finally, this alternative would result in less greenhouse gas emissions relative to the Proposed Project. Similar to the Proposed Project, this alternative would require mitigation to reduce the level of impact associated with greenhouse gases; however, this alternative would still result in significant and unavoidable impacts from greenhouse gases. Although this was found to be a significant and unavoidable impact after mitigation, this alternative would lessen the severity of this impact. Therefore, this alternative would have fewer air quality impacts than the Proposed Project.

Biological Resources

This alternative would result in the removal of the existing vegetation on the project site. Ground-disturbing activities would occur on all portions of the project site. Accordingly, this alternative would have the potential to impact special-status species (such as nesting birds) and riparian habitat, and would be subject to the County's Oak Woodland Management Plan. Similar to the Proposed Project, this alternative would require mitigation that involves pre-construction surveys for special-status species and compliance with the Oak Woodland Management Plan. With the implementation of these mitigation measures, impacts on biological resources would be reduced to a less than significant level. Because ground-disturbing activities would not change under this alternative, impacts to biological resources would be similar to the Proposed Project.

Cultural Resources

This alternative would result in ground-disturbing activities similar to the Proposed Project. As such, it would have the potential to damage or destroy undiscovered cultural resources or burial sites. Mitigation similar to that of the Proposed Project would be implemented to ensure that undiscovered cultural resources would not be adversely affected by this alternative's construction activities. Therefore, this alternative would have cultural resources impacts similar to the Proposed Project.

Geology and Soils

This alternative would result in the development of a 210,386-square-foot retail center. The structures developed under this alternative would implement mitigation similar to the Proposed Project to reduce potential impacts related to corrosive soils and non-engineered fill to a less than significant impact. Construction activities associated with this alternative would result in ground disturbance that could create erosion. Mitigation similar to that of the Proposed Project would be required to ensure that standard stormwater quality control measures are implemented to reduce potential erosion impacts to a level of less than significant. Therefore, this alternative would have geology, soils, and seismicity impacts similar to those of the Proposed Project.

Hazards and Hazardous Materials

This alternative would result in construction and operational activities similar to the Proposed Project. The project site contains past and present uses that could potentially result in the exposure of persons and the environment to hazardous materials including lead, PCBs, and industrial chemicals. Mitigation similar to that of the Proposed Project would be required to reduce potential impacts to less than significant. As with the Proposed Project, project construction and operation activities may involve the use and transport of hazardous materials (including petroleum at the proposed gas station), but would be required to comply with all applicable federal, state, and local regulations to ensure humans and the environment are not exposed to hazardous materials. Also similar to the Proposed Project, mitigation for the proposed detention basin would ensure potential related hazards are reduced to less than significant levels. Therefore, this alternative would have hazards and hazardous material impacts similar to those of the Proposed Project.

Hydrology and Water Quality

This alternative would result in construction activities on the same acreage as the Proposed Project. Construction activities would result in ground disturbance that could cause stormwater pollution. Operational activities may also cause stormwater pollution albeit with slightly less runoff due to less building square footage and less parking area. Nonetheless, mitigation similar to that of the Proposed Project would be implemented to ensure that standard stormwater quality control measures are implemented during construction and operations to reduce potential impacts to a level of less than significant. Accordingly, this alternative would have impacts on hydrology and water quality similar to the Proposed Project.

Land Use and Planning

The Reduced Density Alternative would develop a retail center on the project site, albeit with 70,129 fewer square feet. Similar to the Proposed Project, a General Plan Amendment, rezone, planned development overlay, a development plan, and tentative parcel map would be requested. Also similar to the Proposed Project, this alternative would abide by applicable regulations set forth in the El Dorado County Ordinance Code, including those related to signage, landscaping and off-street parking. This alternative would be constructed in accordance with the Missouri Flat Design Guidelines to the extent that the guidelines are applicable to industrial development. Because a general plan amendment, rezone, planned development overlay, and development plan are required, this alternative would have impacts on land use and planning impacts similar to the Proposed Project.

Noise

The Proposed Project was found to have the potential to expose a nearby residential land use to excessive construction, operational, and offsite traffic noises as well as an increase in temporary or periodic increases in ambient noise levels above acceptable standards. These effects were determined to be less than significant with the implementation of mitigation.

This alternative would result in the development of a 210,386-square-foot retail center. Construction and would be similar in nature to the Proposed Project. Mitigation similar to that of the Proposed Project would be required to mitigate construction noise impacts to a less than significant level. Construction and operational vibration would occur at similar distances from the nearest residences; however, as with the Proposed Project, groundborne vibration impacts would not be significant.

Operational activities would also be similar to those of the Proposed Project; however, the number of truck deliveries and loading dock operations would likely be slightly fewer than the Proposed Project. Nonetheless, the vehicles utilizing the realigned MRF access would still result in operational noise impacts. Mitigation similar to that of the Proposed Project would be implemented to ensure operational noise impacts would be less than significant.

This alternative would result in 2,226 fewer daily trips than the Proposed Project and, therefore, would result in a corresponding decrease in offsite vehicular noise. The Proposed Project's offsite vehicular noise impacts were found potentially significant at a single location. Because this alternative would not reduce vehicle trips along the realigned MRF access point, mitigation similar to that included in the Proposed Project would be required to reduce impacts to less than significant. However, this alternative would result in less roadway noise in other areas.

In summary, this alternative would generate less onsite operational and offsite vehicular noise than the Proposed Project and, therefore, would have fewer noise impacts than the Proposed Project.

Public Services and Utilities

This alternative would result in a 25-percent reduction in retail space relative to the Proposed Project. Areas within the project site not utilized for retail or parking space would be landscaped. Similar to the Proposed Project, a Facility Report Plan would be submitted to the El Dorado Irrigation District to address the expansion and use of water and wastewater facilities. The reduction in square footage would be expected to result in a reduction in demand for police protection, fire protection, and emergency medical services; less consumption of water and energy; and less generation of wastewater and solid waste. Therefore, this alternative would have fewer impacts on public services and utilities than the Proposed Project.

Traffic and Transportation

Trip generation for this alternative is provided in Table 5-5. As shown in the table, this alternative would generate 2,226 fewer daily trips, 47 fewer weekday morning peak-hour trips, and 238 fewer weekday afternoon peak-hour trips. To provide a conservative analysis, the Traffic Impact Analysis for the Proposed Project was based on a 290,015-square-foot retail center. Accordingly, this alternative analysis is based upon a 217,511-square-foot shopping center, a 25-percent reduction of 290,015 square feet, instead of the previously used 210,386 square feet. While this alternative would result in fewer trips, it would still contribute additional vehicle trips to the intersections, roadway segments, and queuing operations that operate at unacceptable levels. Mitigation similar to the Proposed Project would be implemented to reduce the impacts to less than significant.

Table 5-5: Reduced Density Alternative Trip Generation

Scenario	Component	Daily Trips	AM Peak Hour Trips	PM Peak Hour Trips
Reduced Density Alternative	Shopping Center - 217,511 ¹ square feet (ITE Code 820)	11,254	249	1,046
	Adjustment - Pass-By Trip Reduction (30%) [Daily and PM only]	(3,376)	—	(314)
	Total Adjusted Trip Generation	7,878	249	732
Proposed Project	Total Adjusted Trip Generation	10,104	296	970
Difference	Total Adjusted Trip Generation	(2,226)	(47)	(238)
Notes: ¹ 217,511 is 75 percent of 290,015 which is the square footage analyzed in the Traffic Impact Analysis and utilized in Section 4.11, Transportation, of this Draft EIR. This increased square footage is used to provide a conservative transportation analysis. Square footages represented in units of 1,000 (for example, 150,000 = 150.000) Trip values rounded to nearest whole number Source: KHA, 2010; MBA, 2010.				

This alternative would provide 959 off-street vehicular parking spaces for a ratio of 4.56 spaces per 1,000 square feet, which would meet the County's parking requirement of 3.33 spaces for 1,000 feet. Similar to the Proposed Project, this alternative would be served by the El Dorado County Transit

Authority via two bus stops on Diamond Springs Road. Finally, this alternative would implement mitigation similar to the Proposed Project to ensure potential impacts related to construction traffic and parking are less than significant and to ensure that the main vehicular access points would operate safely and efficiently. Therefore, this alternative would have fewer impacts on transportation than the Proposed Project.

5.6.2 - Conclusion

The Reduced Density Alternative would have fewer impacts to aesthetics, air quality, noise, public services and utilities, and transportation relative to the Proposed Project. However, this alternative would not further all of the project objectives to the same degree as the Proposed Project. For example, the smaller square footage would create fewer job opportunities for local residents and would result in fewer sales; therefore, it would have less positive economic benefit.

5.7 - Alternative 4 - Mixed-Use Center Alternative

The Mixed-Use Center Alternative consists of the development of a 280,000-square-foot, mixed-use center on the project site. The mixed-use center would feature 140,000 square feet of retail uses, 35,000 square feet of office uses, and 105 apartments (1,000 square feet each). A gas station would not be developed as a part of this alternative.

Ten buildings would be developed under this alternative, all along the perimeter of the project site:

- Two 20,000-square-foot, one-story retail buildings would be located between the western boundary of the project site and Throwita Way along Diamond Springs Road.
- Two 50,000-square-foot, one-story retail buildings would be located between Throwita Way and Diamond Road (SR-49) along Diamond Springs Road.
- One 35,000 square-foot, two-story office building would be located south of the access point on Diamond Road (SR-49).
- Four 20,000-square-foot and one 25,000-square-foot, two-story residential buildings would be located along the southern portion of the project site. A row of single-car garages for use by tenants of the residential buildings would be located between the residential buildings and the southern perimeter of the project site to provide resident parking and act as a buffer between the residential units and the MRF.

Vehicular access points and the MRF access realignment would be similar to those of the Proposed Project. The internal circulation system would be centered on the Throwita Way access with internal driveways connecting all buildings. Direct pedestrian linkages would link all buildings, focusing on providing access to the residential buildings. A landscaped plaza would be provided in the middle of the eastern half of the project site. Landscaping would be provided along the site's frontages, along pedestrian linkages, throughout the parking lots, and adjacent to the residential areas.

Customer parking would be provided in two main lots, one in the western portion and one in the eastern portion of the project site, with smaller parking areas located between the retail and office buildings. Residential parking would be provided both in front of and behind the residential buildings. A total of 932 parking spaces would be provided (3.33 spaces per 1,000 square feet).

The Mixed-Use Center Alternative would require both a General Plan Amendment and rezone to Commercial (C) designations, each of which allows mixed-use developments. A Planned Development (PD) overlay would and Tentative Parcel Map (TPM) would also be implemented.

The purpose of the Mixed-Use Center Alternative is to develop a site use that would locate housing, jobs, and retail in a single location in order to promote trip reduction. The Mixed-Use Center Alternative is summarized in Table 5-6.

Table 5-6: Mixed-Use Center Alternative Summary

Scenario	Component	Square Footage
Mixed-Use Center Alternative	Retail	140,000
	Office	35,000
	Residential	105,000 (105 dwelling units)
	Total	280,000
Proposed Project	Total	280,515
Difference	Total	(515)
Notes: Residential square footage assumes 1 dwelling unit = 1,000 square feet gross floor area. Source: MBA, 2010.		

5.7.1 - Impact Analysis

Aesthetics, Light, and Glare

This alternative would result in the development of a 280,000-square-foot, mixed-use center, consisting of 10 buildings ranging in height from one to two stories. This alternative would have an appearance that is slightly different from the Proposed Project, but it would be a contemporary urban development project; therefore, the underlying change in visual character would be similar.

Landscaping would be provided throughout the project site and along the project street frontages. Mitigation similar to that of the Proposed Project would be required to reduce visual impacts of the MRF access realignment. Exterior lighting fixtures would be installed and would be required to minimize unwanted light spillover. Therefore, this alternative would have aesthetics, light, and glare impacts similar to the Proposed Project.

Air Quality

This alternative would result in the development of a 280,000-square-foot, mixed-use center. Overall, this alternative would result in a 515-square-foot reduction in floor area. Construction activities would be similar to the Proposed Project and would result in a comparable amount of pollutant emissions. Similar to the Proposed Project, this alternative would require mitigation to ensure construction emissions are below EDAQMD's thresholds.

From an operational emissions perspective, this alternative would generate 3,652 fewer daily trips relative to the Proposed Project, thereby creating less severe impacts. This would result in fewer emissions of criteria pollutants on a daily basis. Although this alternative would remain significant and unavoidable for daily operational emissions, the reduction in trips would result in less operational emissions and therefore, would have less severe impacts.

This alternative contains a retail center; however, the Major 1 building would not be constructed, nor would the gas station, as shown in the Proposed Project. The Proposed Project's air toxic emissions were found to be less than significant. Although this alternative's emissions would also be less than significant, this alternative's reduced emissions would be more beneficial than the Proposed Project.

Finally, this alternative would emit fewer greenhouse gas emissions relative to the Proposed Project because it would generate fewer daily vehicle trips. Thus, this alternative would decrease the severity of this impact. Similar to the Proposed Project, this alternative would require mitigation to reduce the level of impact associated with greenhouse gases; however, this alternative would still result in significant and unavoidable impacts from greenhouse gases. Although this was found to be a significant and unavoidable impact after mitigation, this alternative would lessen the severity of this impact. Therefore, this alternative would have fewer air quality impacts than the Proposed Project.

Biological Resources

This alternative would result in the removal of the existing vegetation on the project site. Ground-disturbing activities would occur on all portions of the project site. Accordingly, this alternative would have the potential to impact special-status species (such as nesting birds) and riparian habitat, and would be subject to the County's Oak Woodland Management Plan. Similar to the Proposed Project, this alternative would require mitigation that involves pre-construction surveys for special-status species and compliance with the Oak Woodland Management Plan. With the implementation of these mitigation measures, impacts on biological resources would be reduced to a less than significant level. However, the residential component would be required to include 30 percent open space, which would allow flexibility in development standards, and could result in the preservation of onsite vegetation, including oak trees, and would potentially incorporate the wetland features onsite.

As such, impacts to biological resources would be less than those of the Proposed Project.

Cultural Resources

This alternative would result in ground-disturbing activities similar to the Proposed Project. As such, it would have the potential to damage or destroy undiscovered cultural resources or burial sites. Mitigation similar to that of the Proposed Project would be implemented to ensure that undiscovered cultural resources would not be adversely affected by this alternative's construction activities. Therefore, this alternative would have cultural resources impacts similar to the Proposed Project.

Geology and Soils

This alternative would result in the development of a 280,000-square-foot commercial/office and residential mixed-use center. The structures developed under this alternative would implement mitigation similar to the Proposed Project to reduce potential impacts related to corrosive soils and non-engineered fill to a less than significant impact. Construction activities associated with this alternative would result in ground disturbance that could create erosion. Mitigation similar to that of the Proposed Project would be required to ensure that standard stormwater quality control measures are implemented to reduce potential erosion impacts to a level of less than significant. Therefore, this alternative would have geology, soils, and seismicity impacts similar to those of the Proposed Project.

Hazards and Hazardous Materials

This alternative would result in construction and operational activities similar to the Proposed Project. The project site contains past and present uses that could potentially result in the exposure of persons and the environment to hazardous materials, including lead, PCBs, and industrial chemicals. Mitigation similar to that of the Proposed Project would be required to reduce potential impacts to less than significant. As with the Proposed Project, mitigation for the proposed detention basin would ensure potential related hazards are reduced to less than significant. Also similar to the Proposed Project, project construction, and operation activities may involve the use and transport of hazardous materials, but would be required to comply with all applicable federal, state, and local regulations to ensure humans and the environment are not exposed to hazardous materials. However, a gas station would not be developed under this alternative, thereby reducing onsite use and transportation of hazardous materials. Therefore, this alternative would have fewer hazards and hazardous material impacts than the Proposed Project.

Hydrology and Water Quality

This alternative would result in construction activities on the same acreage as the Proposed Project. Construction activities would result in ground disturbance that could cause stormwater pollution. Operational activities may also cause stormwater pollution. Mitigation similar to that of the Proposed Project would ensure that standard stormwater quality control measures are implemented during construction and operations to reduce potential impacts to a level of less than significant. Accordingly, this alternative would have impacts on hydrology and water quality similar to the Proposed Project.

Land Use and Planning

Under the Mixed-Use Center Alternative, the project site would not be compatible with the existing land use and zoning designations of Industrial (I). Accordingly, this alternative would re-designate and rezone the project site from Industrial (I) to Commercial (C). Similar to the Proposed Project, a General Plan Amendment, rezone, and planned development overlay would be requested. Also similar to the Proposed Project, this alternative would abide by applicable regulations set forth in the El Dorado County Ordinance Code, including those related to signage, landscaping and off-street parking. This alternative would be constructed in accordance with the Missouri Flat Design Guidelines.

Implementation of residential uses on the project site may result in land use conflicts in the form of odor and/or noise complaints, due to the proximity of the existing MRF facility. While a row of single-car garages would be located along the Project's southern boundary to act as a buffer between the two land use types, significant impacts may still occur. As such, this alternative would have greater impacts on land use and planning than the Proposed Project.

Noise

The Proposed Project was found to have the potential to expose a nearby residence to excessive construction, operational, and offsite traffic noises as well as an increase in temporary or periodic increases in ambient noise levels above acceptable standards. These effects were determined to be less than significant with the implementation of mitigation.

This alternative would result in the development of a 280,000-square-foot, mixed-use retail center. Construction and would be similar in nature to the Proposed Project. Mitigation similar to that of the Proposed Project would be required to mitigate construction noise impacts to a less than significant level. Construction and operational vibration would occur at similar distances from the nearest dwellings; however, as with the Proposed Project, groundborne vibration impacts would not be significant.

Operational activities would also be similar to those of the Proposed Project; however, the Major 1 loading dock would not be constructed, replaced instead by residential buildings and a 35,000-square-foot office building. Accordingly, operational noise impacts resulting from the Major 1 store would not occur. However, similar to the Proposed Project, noise resulting from vehicles using the realigned MRF access would necessitate the implementation of mitigation.

This alternative would result in 3,652 fewer daily trips than the Proposed Project and, therefore, would result in a corresponding decrease in offsite vehicular noise. The Proposed Project's offsite vehicular noise impacts were found to be potentially significant at a single location. Because this alternative would not reduce vehicle trips along the realigned MRF access point, mitigation similar to that included in the Proposed Project would be required to reduce impacts to less than significant. However, this alternative would result in less roadway noise in other areas.

Unlike the Proposed Project, this alternative would place residential buildings (sensitive receptors) adjacent to the existing MRF facility, which is identified as a stationary source of noise in the El Dorado County's General Plan EIR (EDAW 2003). Major noise sources associated with the transfer station result from onsite heavy-duty mobile equipment. This alternative would also place residential buildings along the realigned MRF access. While a row of single-car-garages would be located between the residential buildings and the MRF and MRF access road, noise exposure levels may still exceed applicable standards.

In summary, this alternative would generate less onsite operational and offsite vehicular noise than the Proposed Project, but would place a residential land use adjacent to an existing source of stationary noise and, therefore, would have greater noise impacts than the Proposed Project.

Public Services

This alternative would develop a 280,000-square-foot, mixed-use center on the project site, including 105 apartments. The 105 residential units would increase demand for police protection, fire protection, and emergency medical services, because such uses typically generate more calls for service than non-residential uses. Furthermore, the inclusion of residential uses would also result in greater water consumption, wastewater generation, solid waste generation, and energy consumption than the Proposed Project. Although these impacts could likely be mitigated to a level of less than significant, they would represent more severe impacts than the Proposed Project. As such, impacts to public services and utilities would be greater than the Proposed Project.

Traffic and Transportation

This alternative would develop 175,000 square feet of retail/office space and 105,000 square feet of residential space. The trip generation for this alternative is provided in Table 5-7. As shown in that table, this alternative would generate 3,652 fewer daily trips, 78 fewer AM peak-hour trips, and 565 fewer PM peak-hour trips. While this alternative would result in fewer trips, it would still contribute additional vehicle trips to the intersections, roadway segments, and queuing operations that operate at unacceptable levels. Mitigation similar to the Proposed Project would be implemented to reduce the impacts to less than significant.

Table 5-7: Mixed-Use Center Alternative Trip Generation

Scenario	Component	Daily		AM Peak Hour		PM Peak Hour	
		Rate	Trips	Rate	Trips	Rate	Trips
Mixed-Use Center Alternative	Retail - 140,000 square feet (ITE Code 820)	42.94	6012	1.00	140	3.73	522
	Office - 35,000 square feet (ITE Code 710)	11.01	386	1.55	54	1.49	52
	Residential - 105 dwelling units (ITE Code 210)	6.65	700	0.51	54	0.62	65

Table 5-7 (cont.): Mixed-Use Center Alternative Trip Generation

Scenario	Component	Daily		AM Peak Hour		PM Peak Hour	
		Rate	Trips	Rate	Trips	Rate	Trips
Mixed-Use Center Alternative (<i>cont.</i>)	Total Adjusted Trip Generation (Internal Capture and Pass-By)	—	6,452	—	218	—	405
Proposed Project	Total Adjusted Trip Generation	—	10,104	—	296	—	970
Difference	Total Adjusted Trip Generation	—	(3,652)	—	(78)	—	(565)
Notes: Square footages represented in units of 1,000 (for example, 30,000 = 30.000) Trip values rounded to nearest whole number Source: KHA, 2010; MBA, 2010.							

This alternative would provide 932 off-street vehicular parking spaces for a ratio of 3.33 spaces per 1,000 square feet, which would meet the County’s parking requirement. Similar to the Proposed Project, this alternative would be served by the El Dorado County Transit Authority via two bus stops on Diamond Springs Road. Because of the residential component, ridership would likely be higher than that of the Proposed Project, potentially further reducing trip generation. Finally, this alternative would implement mitigation similar to the Proposed Project to ensure that construction traffic and parking impacts are less than significant and that the main vehicular access points would operate safely and efficiently. Therefore, this alternative would have fewer impacts on transportation than the Proposed Project.

5.7.2 - Conclusion

The Mixed-Use Center Alternative would result in the same significant unavoidable impacts as the Proposed Project. In addition, the severity of impacts associated with land use, noise, and public services and utilities would be increased by this alternative. The severity of air quality, hazards, and transportation would be lessened relative to the Proposed Project.

This alternative would not further all project objectives to the same degree as the Proposed Project, because it would result in a smaller amount of retail space and provide fewer employment opportunities. Accordingly, this alternative would result in less contribution to the local economy, generation of less tax revenue for local agencies, and creation of fewer new job opportunities.

5.8 - Environmentally Superior Alternative

CEQA Guidelines Section 15126(e)(2) requires an EIR to identify an “environmentally superior alternative.” The qualitative environmental effects of each alternative in relation to the Proposed Project are summarized in Table 5-8. To quantitatively identify an environmentally superior alternative a numeric value has been applied to each qualitative environmental effect: +1 for greater

impacts, 0 for similar impacts, and -1 for fewer impacts. Accordingly, the alternative with the lowest score is the environmentally superior alternative.

Table 5-8: Alternatives Impact Comparison Summary

Environmental Topic Area	No Project Alternative	Industrial Alternative	Reduced Density Alternative	Mixed-Use Center Alternative
Aesthetics, Light, and Glare	Fewer -1	Similar 0	Similar 0	Similar 0
Air Quality	Fewer -1	Fewer -1	Fewer -1	Fewer -1
Biological Resources	Fewer -1	Similar 0	Similar 0	Fewer -1
Cultural Resources	Fewer -1	Similar 0	Similar 0	Similar 0
Geology, Soils, and Seismicity	Fewer -1	Similar 0	Similar 0	Similar 0
Hazards and Hazardous Materials	Fewer -1	Greater +1	Similar 0	Fewer -1
Hydrology and Water Quality	Fewer -1	Greater +1	Similar 0	Similar 0
Land Use	Fewer -1	Fewer -1	Similar 0	Greater +1
Noise	Fewer -1	Fewer -1	Fewer -1	Greater +1
Public Services and Utilities	Fewer -1	Greater +1	Fewer -1	Greater +1
Transportation	Fewer -1	Fewer -1	Fewer -1	Fewer -1
Score	-11	-1	-4	-1
Source: MBA, 2010.				

As shown in Table 5-8, the No Project Alternative is the environmentally superior alternative because it would result in fewer impacts to all environmental topic areas. However, the No Project Alternative would not meet any of the project objectives.

Section 15126(d)(2) of the CEQA Guidelines state, “if the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” Accordingly, the Reduced Density Alternative would be the environmentally superior alternative among the other alternatives because it would result in four fewer impacts and no greater impacts than the Proposed Project. The Reduced Density Alternative would not further all of

the project objectives to the same degree as the Proposed Project. For example, the smaller square footage would create fewer job opportunities for local residents and would result in fewer sales; therefore, it would have less positive economic benefit.

5.9 - Alternatives Rejected From Further Consideration

The following alternatives were initially considered, but rejected from further consideration for the reasons described below.

5.9.1 - Alternative Location for Diamond Dorado Retail Center

The following screening criteria were established for an alternative location:

- Be located within the immediate Diamond Springs area
- Be located where development is considered infill
- Provide at least 25 contiguous acres
- Have minimal or no environmental constraints (e.g., wetlands, creeks, hazardous materials contamination, etc.)
- Provide appropriate site access via major arterials
- Be within 1.5 miles of SR-50 and 0.25 mile of SR-49 to allow for convenient access and reduce traffic impacts on residential streets
- Have a non-residential General Plan land use and zoning designation
- Be located within the Missouri Flat Master Circulation and Funding Plan (MC&FP) area

Using the above parameters, a search was conducted for alternative locations using Geographical Information Systems (GIS) data provided by El Dorado County. There are no properties of at least 25 contiguous acres that have a non-residential land use designation within 1.5 miles of SR-50 and 0.25 miles of SR-49 within the Diamond Springs and Missouri Flat MC&FP areas.

5.9.2 - Material Recovery Facility Relocation Alternative

In 2004, the El Dorado County General Plan acknowledged that a new Material Recovery Facility (MRF) would need to be constructed and/or the existing MRF would require expansion to accommodate planned growth within the western slope. Currently, El Dorado County complies with AB 939 by diverting 50 percent of its solid waste from the landfill (CIWMB 2010). At the buildout estimated in the current General Plan (2025), the quantity of diverted materials would increase by up to 72,709 tons per year (El Dorado County 2004). However, the site on which the existing MRF is located is not capable of accommodating the expansions that are required for the County to maintain diversion rates as mandated under AB 939.

Relocation of the Material Recovery Facility (MRF) was initially considered as a project alternative, thereby allowing allow the DDRC to expand onto the MRF's parcel. Michael Brandman Associates prepared a Site Selection Analysis in 2008 that identified four potential MRF relocation sites. The site identified as most feasible is located approximately 0.75 mile to the west, and consists of a highly disturbed, undeveloped parcel at the end of Industrial Drive in the Diamond Springs area. Relocation of the MRF would allow the DDRC to be developed on a contiguous, 44.76-acre parcel. However, strong public opposition to the MRF relocation site halted any further consideration of this alternative because of its proximity to residences and the potential resulting environmental impacts.

SECTION 6: OTHER CEQA REQUIRED SECTIONS

Section 15126 of the California Environmental Quality Act (CEQA) requires that a series of environmental considerations be discussed in an environmental impact report (EIR) to document the full effect of a project's planning, acquisition, development, and operation. This section includes all of the required discussions pursuant to CEQA Section 15126.

6.1 - Significant Unavoidable Impacts

CEQA Section 15126.2(b) requires that an EIR disclose all significant impacts, including those that cannot be mitigated to a less than significant level, where no feasible mitigation measures exist to further reduce these impacts (California Public Resources Code Section 21000). With implementation of the Proposed Project, six impacts that cannot be avoided would occur. Each significant unavoidable impact is discussed below.

- **Air Quality Plan Consistency (Impact AIR-1):** The Proposed Project is inconsistent with the applicable Air Quality Management Plan. Mitigation is identified that would reduce operational emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x); however, the necessary trip and vehicle miles traveled reductions are not feasible for the Project. Therefore, the residual significance would be significant and unavoidable.
- **Regional Air Quality Impact Contribution (Impact AIR-3).** The Proposed Project would also exceed the operational project-level threshold of significance for ROG and NO_x, thereby contributing considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standards. Mitigation is identified that would reduce operational emissions of ROG and NO_x; however, the necessary trip and vehicle miles traveled reductions are not feasible for the Project. Therefore, the residual significance would be significant and unavoidable.
- **Greenhouse Gas Generation (Impact AIR-6).** The Proposed Project would generate significant levels of greenhouse gases from project operations. Mitigation is identified that would reduce operational emissions of greenhouse gases; however, the necessary trip and vehicle miles traveled reductions are not feasible for the Project. Therefore, the residual significance would be significant and unavoidable.
- **Greenhouse Gas Plan Consistency (Impact AIR-7).** The Proposed Project would conflict with California's Scoping Plan, adopted for the purposes of reducing greenhouse gas emissions in the state. Mitigation is identified that would reduce operational emissions of greenhouse gases; however, the necessary trip and vehicle miles traveled reductions are not feasible for the Project. Therefore, the residual significance would be significant and unavoidable.
- **Cumulative (2025) Plus Project Intersection Conditions (Impact TRANS-3).** The Proposed Project would increase the delay for the eastbound approach at the Missouri Flat

Road and Enterprise Drive intersection through the addition of traffic on Missouri Flat road, thereby exacerbating the existing unacceptable LOS F in the PM peak-hour. Construction of a signal at the intersection would mitigate the eastbound delay, but would result in a significant southbound queuing issue on Missouri Flat Road. As such, implementation of a signal at this intersection is not an acceptable option for mitigation and no other feasible mitigation is available. Therefore, impacts would be significant and unavoidable.

- **Queuing (Impact TRANS-5).** The Proposed Project would result in unacceptable queuing at the Missouri Flat Road/Eastbound US-50 ramp and Missouri Flat Road/Westbound US-50 ramp intersections. Mitigation is proposed; however, minor queuing issues would remain at the southbound left-turn lane from the Missouri Flat Road/Eastbound US-50 Ramp intersection. No acceptable mitigation is available to resolve the remaining queuing issue. Therefore, the residual significance would be significant and unavoidable.

6.2 - Growth-Inducing Impacts

There are two types of growth-inducing impacts that a project may have: direct and indirect. To assess the potential for growth-inducing impacts, the Project's characteristics that may encourage and facilitate activities that individually or cumulatively may affect the environment must be evaluated. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment (CEQA Guidelines Section 15126.2(d)).

Direct growth-inducing impacts occur when the development of a project imposes new burdens on a community by directly inducing population growth, or by leading to the construction of additional developments in the same area. Also included in this category are projects that remove physical obstacles to population growth (such as a new road into an undeveloped area or a wastewater treatment plant with excess capacity that could allow additional development in the service area). Construction of these types of infrastructure projects cannot be considered isolated from the development they facilitate and serve. Projects that physically remove obstacles to growth, or projects that indirectly induce growth may provide a catalyst for future unrelated development in an area such as a new residential community that requires additional commercial uses to support residents.

The Proposed Project does not contain any residential uses and, therefore, would not directly induce population growth through the provision of new dwelling units. Rather, the Diamond Dorado Retail Center (DDRC) consists entirely of retail commercial uses. New employment opportunities at the DDRC would range from entry-level, part-time positions, to management positions. Data provided by the California Employment Development Department indicate that, as of June 2010, El Dorado County had 11,600 unemployed persons, resulting in an unemployment rate of 12.6 percent. Diamond Springs and Placerville, both within the Project's vicinity, had 400 and 1,000 unemployed persons, respectively. Assuming the Project would employ approximately 1 employee per 500 square

feet of proposed space, the DDRC would be expected to employ approximately 561 workers (280,515 divided by 500). Given the nature of the job opportunities and the availability of labor, it would be expected that the Proposed Project's employment opportunities would not result in indirect population growth. For these reasons, the Proposed Project would not induce substantial population growth.

While the development site has only supported historical development and temporary uses, the site is surrounded by developed land uses and urban infrastructure (e.g., potable water, electricity, wastewater) that exist close to the project site. As such, no major infrastructure expansions would be required, and development of the Proposed Project would not remove a physical barrier to growth through the extension of urban infrastructure to unserved areas. The Proposed Project would be required to expand Diamond Springs Parkway and Diamond Road (SR-49) from two-lane to four-lane roadways. However, the expansion of the Diamond Springs Parkway is considered in the County's Capital Improvement Plan and General Plan to accommodate expected future growth, the impacts of which have already been considered in the County's General Plan EIR. As such, and as discussed in the Diamond Springs Parkway EIR, expansion of the Diamond Springs Parkway would not be considered growth-inducing beyond what is already accounted for in the General Plan. Expansion of Diamond Road (SR-49) to a four-lane roadway is not contemplated in the County's Capital Improvement Plan or General Plan; however, the expanded Diamond Road (SR-29) would not provide access to previously inaccessible land. Any development on adjacent lands would be required to abide by the County's General Plan land use designations, the buildout impacts of which were evaluated in the General Plan EIR. For these reasons, the Proposed Project would not indirectly induce substantial population growth.

However, the Proposed Project requires the approval of a General Plan Amendment and Rezone to change the existing land use designation and zoning from Industrial (I) to Commercial (C)/General Commercial-Planned Development (CG-PD). Approval of the Proposed Project's land use designations, and subsequent implementation of the Proposed Project, may encourage neighboring lands that are currently undeveloped or underutilized to further develop. For example, new industrial development may be proposed nearby in order to be in close proximity to employee amenities that may be offered by DDRC, such as services and goods. In this respect, the Proposed Project would be growth-inducing by acting as a catalyst for the development of a previously underutilized industrial area, or in other words, by leading to the construction of additional developments in the immediately vicinity.

6.3 - Cumulative Impacts

CEQA Guidelines Section 15130 requires the consideration of cumulative impacts within an EIR when a Project's incremental effects are cumulatively considerable. Cumulatively considerable means that, "... the incremental effects of an individual 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.” In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow the use of a list of past, present, and reasonably anticipated future projects, producing related or cumulative impacts, including those which are outside of the control of the lead agency (in this case, El Dorado County).

In accordance with CEQA Guidelines Section 15130(b), “. . . the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, the discussion need not provide as great [a level of] detail as is provided for the effects attributable to the project alone.” The discussion should be guided by standards of practicality and reasonableness, and it should focus on the cumulative impact to which the identified other projects contribute rather than on the attributes of other projects that do not contribute to the cumulative impact.

The Proposed Project’s cumulative impacts were considered in conjunction with other proposed and approved projects within the Diamond Springs area. The list of other projects was developed in conjunction with the El Dorado County Department of Planning Services. Table 6-1 and Table 6-2 provide a list of residential and commercial projects considered in the cumulative analysis. As shown in Table 6-1, there are 11 proposed or approved residential projects in the project vicinity. Combined, these residential projects represent over 1,400 additional units within El Dorado County. As shown in Table 6-2, there are 12 commercial/industrial/retail projects within the Proposed Project’s vicinity. Combined, these commercial /industrial/retail projects represent over 730,000 square feet of development within El Dorado County.

Table 6-1: Residential Cumulative Projects

Project	APN	Project Description	Application Status
A09-0005, Z08-0024, PD08-0013, TM08-1474	054-402-18, 329-301-15, and -20; 329-310-10, -11, and -12	Stonehenge Springs Subdivision. General Plan Amendment/Zone Change/Planned Development/Tentative Subdivision Map for 361 lots	Processing
Z08-0008, PD08-0008, TM08-1469	329-290-01 and -03; 329-301-19	Oak Highlands. Zone Change/Planned Development/Tentative Subdivision Map for 220 single-family lots, 48 condominiums and six open space lots.	Processing
PA06-0077	329-181-13, -14, and -15	Pre-application meeting for proposed zone change and 30-lot subdivision map.	Completed

Table 6-1 (cont.): Residential Cumulative Projects

Project	APN	Project Description	Application Status
A09-0003, Z09-0006, PD09-0004, TM09-1490	051-461-37 and -54; 051-550-40, -47, -48, and -51	Piedmont Oak Estates. General Plan Amendment/Zone Change/Planned Development/Tentative Subdivision Map for 229 residential lots, three commercial lots, 15 open space lots and 44 road and access lots.	Processing
Z09-0008, PD09-0007, TM09-1492	331-400-02	Diamond Dorado Subdivision. Zone Change/Planned Development/Tentative Subdivision Map for 77 standard lots and 32 cluster lots for a total of 109 lots.	Processing
Z07-0033, PD07-0020, TM07-1448	331-420-12	McCann Subdivision. Zone Change/Planned Development/Tentative Subdivision Map for 72 residential lots.	Processing
Traffic study only - no formal application submitted at this time	331-221-27 and -30	Piedmont Senior Housing. 28 residential lots, 100 assisted living rooms in one building, 85 apartments.	TIS processing/ Submittal Pending
Z10-0006, TM10-1497	329-201-65	Diamond View Subdivision. Zone Change/Tentative Subdivision Map for 26 lots.	Processing
PA09-0014	331-390-07, -09, and -11; 331-400-05, -07, and -09; 331-430-15 and -11	Lake Oaks Subdivision. Pre-application for 270 residential lots.	Completed
P07-0038	327-200-01	Waltner Parcel Map to create two parcels.	Approved
Source: El Dorado County, 2010; Hade, pers. comm.			

Table 6-2: Commercial Cumulative Projects

Project	APN	Project Description	Application Status
Z06-0020, P05-0004	329-280-09, -15 and -16	Harrington Business Park. Parcel map and zone change request to create 42 industrial/commercial lots.	Approved
A09-0006, Z09-0012	327-140-07	Pierce Trust. General Plan Amendment and Zone Change from medium density residential to commercial.	Processing

Table 6-2 (cont.): Commercial Cumulative Projects

Project	APN	Project Description	Application Status
PD09-0001	327-240-23	Planned Development for 2,448-square-foot Panda Express Restaurant.	Approved
DR09-0002	097-020-46	Diamond Springs Center. One 10,000-square-foot; one-story retail building; and one 20,000-square-foot, two-story office building.	Approved
DR05-0005	054-342-18 and -19	Diamond Springs Retail. Twelve-pump gas station with 8,600 square feet of retail space.	Approved
DA98-0001, Z97-0022, PD97-0011, P97-0017	325-220-49; 327-110-02, -04, and -06, 327-120-19, -20, -21, and -22; 327-130-01, -02, and 03	Crossings at El Dorado. Development Agreement, Zone Change, Planned Development and Tentative Parcel Map authorizing up to 535,000 square feet of retail space.	Approved
PD08-0001	327-213-10, -11, and -12	Walgreens. Planned Development to create a 36,237-square-foot retail center.	Approved
SPR07-0037	054-411-45	Diamond Center. Site Plan Review authorizing up to 151,871 square feet of retail/office space	Approved
Source: El Dorado County, 2010; Hade, pers. comm.			

6.3.1 - Cumulative Impact Analysis

CEQA requires the analysis of a project's incremental effect combined with the effects of other past, present, and probable future projects. Such an effect is known as a cumulative impact.

In a cumulative impacts analysis, there are two key questions:

- Is the combined impact of the project and other projects significant?
and
- Is the project's incremental effect cumulatively considerable?

A lead agency (in this case, El Dorado County) may find that the cumulative impact that will result from the combination of the Project's incremental impact and the effects of other projects is not significant. Alternatively, a lead agency may find that a project's potential impacts are significant and cumulatively considerable.

The cumulative impact analysis below is guided by the requirements of CEQA Guidelines Section 15130. Other key principles established by this section include:

- A cumulative impact only occurs from impacts caused by the proposed project and other projects. An EIR should not discuss impacts that do not result from the proposed project.
- When the combined cumulative impact from the increment associated with the proposed project and other projects is not significant, an EIR shall briefly explain why the impact is not significant; detailed explanation is not required. The lead agency still must identify facts and analysis supporting the agency's conclusion.
- An EIR may determine that a project's contribution to a cumulative effect impact would be rendered less than cumulatively considerable if a project is required to implement or fund its fair share of mitigation intended to alleviate the cumulative impact.

The cumulative impact analysis that follows relies on these principles as the basis for determining the significance of the Proposed Project's cumulative contribution to various impacts.

Aesthetics, Light and Glare

The geographic scope of the cumulative aesthetics, light, and glare analysis is the immediate area surrounding the project site. This is the area within view of the Project, and therefore, most likely to experience changes in visual character or light and glare impacts.

The Proposed Project consists of the development of a 280,515-square-foot-retail center on the project site and the rerouting of the Material Recovery Facility (MRF) access. The Project would include one large, one-story retail store; one medium-sized, one-story retail store; and up to seven smaller, one-story retail/office buildings and fuel station. The proposed retail buildings would consist of single story structures of varying heights not to exceed 50 feet. The architectural theme would be consistent with rural structures commonly found in this area, mixing modern uses and configurations while borrowing stylistic characteristics from El Dorado County's history. The Proposed Project has been designed in accordance with the Missouri Flat Design Guidelines. The Proposed Project would abide by Ordinance Code and General Plan requirements for design, landscaping, and signage as required by the General Commercial zoning and Commercial/Planned Development land use designations. Additionally, the Proposed Project would include mitigation to ensure visual impacts related to the rerouting of the MRF access are less than significant. Therefore, the Proposed Project, in conjunction with other planned or approved projects, would not have cumulatively considerable aesthetic impacts.

As shown in Table 6-1 and Table 6-2, several other development projects in the project vicinity have the potential to alter the visual character of the area. These projects would be subject to design and landscaping requirements to ensure that they do not degrade visual character and that they comply with applicable General Plan and Zoning Ordinance standards. Commercial projects in the Missouri Flat area would be required to take into consideration the directives set forth by the Missouri Flat Design Guidelines. Compliance with these regulations, ordinances, and design standards would

ensure that a Proposed Project, in conjunction with past, existing, and probable future development, would not make a cumulatively considerable contribution to a significant impact.

The proposed development projects in the project vicinity have the potential to introduce new sources of light and glare. It is reasonable to assume that those other projects would be required to reduce spillover light pursuant to County standards. The Proposed Project has submitted a photometric plan to the County that identifies lighting levels in order to ensure that excessive spillage of light and glare onto neighboring properties would not occur. Therefore, the Proposed Project would not have the potential to have a cumulative contribution to light and glare impacts.

Air Quality

The geographic scope of the cumulative air quality analysis is the Mountain Counties Air Basin. Air pollution is regarded as a regional issue; therefore, this would be the area most likely to be impacted by project emissions.

The uses of the Project would not be consistent with the land use and vehicle miles traveled assumptions contained in the El Dorado County Air Quality Management District's (EDAQMD) 1994 Sacramento Regional Clean Air Plan and in the 8-Hour Ozone Attainment and Reasonable Further Progress Plan. Other development projects may or may not be consistent with the Air Quality Attainment Plan. However, because the Proposed Project would be inconsistent with the assumptions, it would have a cumulative contribution to air quality impacts.

Mitigation would be implemented to ensure the Proposed Project's construction emissions would not exceed EDAQMD daily emissions thresholds. Construction activities associated with other development projects would make a minimal contribution to cumulative emissions because the timing of those activities would overlap minimally, if at all, with the Proposed Project. Therefore, it is reasonable to conclude that construction emissions from the Proposed Project would not combine with emissions from other development projects to cause cumulatively considerable air quality impacts.

The Proposed Project's operational emissions would exceed EDAQMD thresholds for reactive organic gases (ROG) and oxides of nitrogen (NO_x). Mitigation is proposed requiring various emissions reduction measures in order to mitigate the impact; however, the Proposed Project's operational emissions would remain significant and unavoidable after mitigation. Operational activities associated with other planned and approved projects would emit air pollutants, which, depending on the nature of the Project, may or may not exceed EDAQMD thresholds. Because the Proposed Project's operational emissions would not be mitigated to below EDAQMD thresholds, its air emissions would not be within the regional air emissions budget and, therefore, can be assumed to be cumulatively considerable.

The Proposed Project would not create any carbon monoxide (CO) hot spots on surrounding roadways. CO hot spots are localized to specific locations at specific times, significantly reducing the potential for the Proposed Project, in conjunction with other development projects, to have a cumulatively considerable impact.

The Proposed Project would receive diesel truck deliveries on a daily basis. However, based on distances from sensitive receptors and prevailing wind patterns, sensitive populations would not be exposed to harmful concentrations of toxic air contaminants (such as diesel particulate matter [DPM]). DPM exposure is highly localized because of wind dispersion patterns; therefore, it is unlikely that the Proposed Project's DPM emissions would combine with the DPM emissions from other projects. Furthermore, adverse health effects from DPM exposure requires sustained exposure for decades by nearby sensitive receptors. As discussed in Section 4.2, Air Quality, no sensitive receptors are close enough to the project site or the surrounding cumulative projects to be adversely affected by DPM. Therefore, the Proposed Project, in conjunction with other projects that may emit DPM, would not create cumulatively considerable health risks.

The Proposed Project would result in a net increase of greenhouse gas emissions. Mitigation is proposed that would require implementation of greenhouse gas reduction measures; however, implementation of the mitigation measures would not reduce the level of significance of project-emissions and consistency with the adopted greenhouse gas reduction plan to less than significant. Therefore, the Project's cumulative contribution of greenhouse gases is cumulatively considerable.

Biological Resources

The geographic scope of the cumulative biological resources analysis is the project vicinity. Biological impacts tend to be localized; therefore, the area near the project site would be most affected by project activities (generally within a 0.5-mile radius).

Development projects in the project vicinity may have the potential to impact special-status species. These projects would be required to mitigate for impacts. Similarly, the Proposed Project would have the potential to adversely affect special-status species (nesting birds). Mitigation is proposed to reduce potential impacts on species to a level of less than significant. Therefore, the Proposed Project, in conjunction with other projects, would not have cumulatively considerable special-status species impacts.

Development projects in the project vicinity may result in impacts to riparian habitat. These projects would be required to comply with all state and federal regulations regarding riparian habitat and, if necessary, include mitigation measures in order to reduce or eliminate impacts and ensure no net loss of riparian habitat. The Proposed Project would impact water and riparian habitat under United States Army Corps of Engineers (USACE) and California Department of Fish and Game (CDFG) jurisdiction. Accordingly, a Section 404 USACE Permit and CDFG 1602 Streambed Alteration Agreement would be required. Mitigation is proposed requiring the project applicant to obtain these

permits and implement associated mitigation (e.g., offsite replacement or purchase of credits at an agency-approved mitigation bank). Therefore, the Proposed Project, in conjunction with other planned or approved projects, would not have cumulatively considerable riparian habitat impacts.

Development projects in the project vicinity may result in oak tree removal activities that would be subject to the County's Oak Woodland Management Plan (OWMP). These projects would be required to comply with the OWMP, including onsite replanting and replacement or provision of conservation fund in-lieu fees. The Proposed Project would remove portions of the existing onsite oak woodland canopy. Mitigation is proposed requiring the project applicant to comply with the OWMP. Therefore, the Proposed Project, in conjunction with other projects in the vicinity would not have cumulatively considerable conflicts with local biological ordinances and policies.

Cultural Resources

The geographic scope of the cumulative cultural resources analysis is the project vicinity. Cultural resource impacts tend to be localized; therefore, the area near the project site would be most affected by project activities (generally within a 500-foot radius).

Development projects in the project vicinity may have the potential to impact cultural resources. These projects would be required to mitigate for impacts. The Proposed Project site contains two previously recorded cultural resources: the Diamond Ditch and the former Diamond Springs Lime Plant. Surveys to relocate the previously recorded cultural resources failed to find substantial evidence of either resource within the project site. Nonetheless, the project site may contain previously undiscovered resources that could be encountered by subsurface earthwork activities. The implementation of standard construction mitigation measures would ensure that undiscovered cultural resources are not adversely affected by project-related construction activities, which would prevent the destruction or degradation of potentially significant cultural resources in the project vicinity. Therefore, cumulative impacts are anticipated to be less than significant and the Proposed Project, in conjunction with other planned or approved projects, would not have cumulatively considerable cultural resources impacts.

Geology, Soils, and Seismicity

The geographic scope of the cumulative geology, soils, and seismicity analysis is the project vicinity. Geologic, soil, and seismic impacts tend to be localized; therefore, the area near the project site would be most affected by project activities (generally within a 500-foot radius).

Development projects in the project vicinity may result in substantial soil erosion or the loss of topsoil. Similarly, the Proposed Project could also result in substantial soil erosion or the loss of topsoil during project construction. Mitigation is proposed requiring implementation of a stormwater pollution prevention plan (SWPPP) and associated best management practices (BMPs) to avoid such impacts. In addition, project construction activities would implement standard stormwater pollution prevention mitigation measures to ensure that earthwork activities do not result in substantial erosion

offsite and, therefore, would not contribute to areawide erosion problems. It is reasonable to assume that other development projects would implement mitigation measures for erosion that would reduce project-level impacts to a less than significant level. Therefore, the Proposed Project, in conjunction with other projects, would not have cumulatively considerable soil erosion or topsoil loss impacts.

Development projects in the project vicinity may be located on unstable soils. The proposed site may contain unstable geologic conditions including corrosive soils and non-engineered fills. Mitigation is proposed requiring the use of appropriate cement and underground conduits and implementation of grading plans as recommended in the project specific geotechnical report to reduce impacts to less than significant. It is reasonable to assume that other development projects would implement mitigation measures for unstable soils that would reduce project-level impacts to a less than significant level. Therefore, the Proposed Project, in conjunction with other projects, would not have cumulatively considerable impacts related to unstable soils.

Hazards and Hazardous Materials

The geographic scope of the cumulative hazards and hazardous materials analysis is the project vicinity. Adverse affects of hazards and hazardous materials tend to be localized; therefore, the area near the project site would be most affected by project activities (generally within a 500-foot radius).

The Proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions. Operation of the proposed gas station would be required to abide by all applicable federal, state, and local regulations. As such, the Project would not have the potential to cause an incremental contribution to hazards in the project vicinity. Similarly, other projects in the vicinity would be required to abide by all applicable federal, state, and local regulations regarding hazardous materials. Therefore, cumulative impacts are anticipated to be less than significant, and the Proposed Project, in conjunction with other projects, would not have cumulatively considerable hazards and hazardous materials impacts.

Development projects would be required to abate any hazards or hazardous materials conditions that exist onsite, such as contamination or hazardous building materials. The project site contains past and present uses that could potentially result in the exposure of persons and the environment to hazardous materials, including lead, polychlorinated biphenyls (PCBs), and industrial chemicals. Mitigation is proposed requiring surveying for hazardous materials and their proper removal and disposal. Additionally, implementation of the Proposed Project may result in the potential discovery of lime deposits onsite, resulting in increased stormwater acidity. Mitigation is proposed to address any effects the Project may have on stormwater quality. Other projects in the area containing potential hazardous materials would be required to implement similar measures to protect public health and safety. Given the remote possibility of any hazardous materials being released offsite by any of the projects, the combined impact of the associated construction and demolition activities would not be cumulatively considerable.

Hydrology and Water Quality

The geographic scope of the cumulative hydrology and water quality analysis is the Weber Creek watershed.

Development projects in the project vicinity may have the potential to create sources of short-term and long-term water pollution. These projects would be required to mitigate for potential impacts by providing stormwater pollution prevention measures. The Proposed Project would involve short-term construction and long-term operational activities that would have the potential to degrade water quality in downstream waterways. Mitigation is proposed that would require implementation of various construction and operational water quality control measures that would prevent the release of pollutants into downstream waterways.

Development projects in the project vicinity may have the potential to increase impervious surface coverage and, therefore, may result in increased runoff volumes in downstream waterways. These projects would be required to provide drainage facilities that collect and detain runoff such that offsite releases are controlled and do not create flooding. The Proposed Project would significantly increase the amount of impervious surfaces at the project site. Implementation of the Proposed Project's drainage plan, and the construction of a stormwater detention basin, would ensure the Proposed Project's stormwater flows would not exceed pre-development levels. It is reasonable to assume that other related projects would implement similar stormwater quality and drainage plans that would reduce potential impacts to downstream waterways to a less than significant level. Therefore, the Proposed Project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on hydrology and water quality.

Land Use

The geographic scope of the cumulative land use analysis is the area within the vicinity of the Diamond Springs community.

Development projects in the Diamond Springs area would be required to demonstrate consistency with all applicable General Plan and Zoning Ordinance requirements. Consistency with the Missouri Flat Design Guidelines would be required for all projects located within the defined Missouri Flat corridor area. This would ensure that these projects comply with applicable planning regulations. The Proposed Project is requesting a General Plan Amendment and rezone to Commercial and General Commercial land use and zoning designations, respectively. The Proposed Project has been designed in accordance with the General Commercial zoning regulations. The Proposed Project is also requesting the designation of a Planned Development Overlay to allow for an efficient use of the property at the discretion of the County. As such, the Proposed Project would be consistent with applicable provisions and ordinances of both the El Dorado County General Plan and the Ordinance Code. Furthermore, the Project has been designed in accordance with the Missouri Flat Design Guidelines. The Proposed Project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on land use.

Noise

The geographic scope of the cumulative noise analysis is the project vicinity, including surrounding sensitive receptors. Noise impacts tend to be localized because ambient noise generally tends to dissipate within 0.25 mile, and existing noise from roadways tends to have a canceling effect on noise emanating from a project site; that is, the logarithmic properties of noise and distance usually mean there are no additive effects. Therefore, the area near the project site (generally 0.25 mile) would be the area most affected by project activities.

Construction activities associated with the Proposed Project, such as ground clearing, excavation, grading, and movement of construction materials would result in substantial sources of noise impacting a single adjacent residence. Mitigation is proposed that would require the use of a temporary noise barrier until a permanent noise barrier could be constructed, thereby reducing impacts to less than significant. Therefore, the Proposed Project would not have a cumulatively considerable contribution to short-term ambient noise levels. Other planned and approved projects would be required to implement similar construction noise mitigation. Note that the construction schedules for other planned and approved projects are not anticipated to overlap because of the timing of approvals, which minimizes the potential for cumulatively considerable construction noise effects. In addition, construction noise is a localized phenomenon; therefore, even if all projects were constructed concurrently, there may not be cumulative construction noise impacts. Regardless, because construction noise generally would be limited to daytime hours and would be short-term, construction noise would not be cumulative considerable.

The Proposed Project's operational activities including onsite truck circulation, loading dock activities, and rooftop mechanical equipment would result in substantial sources of noise impacting a single adjacent residence. Mitigation is proposed requiring the construction of a permanent noise barrier thereby reducing impacts to less than significant. Therefore, the Proposed Project would not have a cumulatively considerable contribution to exceedance of noise standards due to operational activities. Other planned and approved projects would be required to implement similar construction noise mitigation as needed. Accordingly, the Proposed Project would not contribute to a cumulatively considerable exceedance of noise standards.

As discussed in Section 4.9, Noise, the Proposed Project's vehicular trips would make a substantial incremental contribution to ambient noise levels under Existing Plus Project and Year 2025 conditions at a single residence. Mitigation is proposed that would require the construction of a noise barrier, thereby reducing impacts to less than significant. The Environmental Noise Assessment completed by Bollard Acoustical Consulting, Inc, (Appendix J) included a cumulative noise assessment. Table 6-3 represents the cumulative traffic noise exposure changes in the project area. Detailed inputs for the analyses are presented in Appendix J.

Table 6-3: Cumulative Traffic Noise Levels at 50 feet from Roadway Centerlines

Roadway	Section	L _{dn} , dB		
		Existing (2010)	LT (2025) +Project	Change
Missouri Flat Road	North of Plaza Drive	66	69	+3
	Plaza Drive to WB US-50 Ramps	70	72	+2
	WB US-50 Ramps to EB US-50 Ramps	71	74	+3
	EB US-50 Ramps to Mother Lode Drive	73	74	+1
	Mother Lode Drive to Forni Road	72	74	+2
	Forni Road to Golden Center Drive	71	74	+3
	Golden Center Drive to Diamond Springs Parkway	71	74	+3
	Diamond Springs Parkway to China Garden Road	69	70	+1
	China Garden Road to Industrial Drive	70	71	+1
	Industrial Drive to Enterprise Drive	70	72	+2
SR-49	Enterprise Drive to Pleasant Valley Road (SR-49)	70	72	+2
	North of Pacific Street	65	67	+2
	Pacific Street to Fiske Street	69	70	+1
	Fiske Street to Skyline Drive	69	70	+1
	Skyline Drive to Truck Street	69	71	+2
	Truck Street to Bradley Drive	68	71	+3
	Bradley Drive to Diamond Springs Parkway	68	71	+3
	Diamond Springs Parkway to Project Driveway #3	68	71	+3
	Project Driveway #3 to Black Rice Road	68	73	+5
	Black Rice Road to Pleasant Valley Road	68	73	+5
	Pleasant Valley Road to China Garden Road	72	72	0
	China Garden Road to Missouri Flat Road	73	72	-1
	Missouri Flat Road to Patterson Drive	71	71	0
	Patterson Drive to Oro Lane/Koki Lane	71	72	+1
	Oro Lane/Koki Lane to Forni Road	70	71	+1
	Forni Road to Pleasant Valley Road	70	72	+2
	South of Pleasant Valley Road	69	70	+1

Table 6-3 (cont.): Cumulative Traffic Noise Levels at 50 feet from Roadway Centerlines

Roadway	Section	L _{dn} , dB		
		Existing (2010)	LT (2025) +Project	Change
Pleasant Valley Road	SR-49 to Racquet Way	67	69	+2
	Racquet Way to Canyon Valley Road	67	68	+1
	East of Canyon Valley Road	66	68	+2
Mother Lode Drive	West of Missouri Flat	62	65	+3
Forni Road	East of Missouri Flat	61	63	+2
	West of Missouri Flat	63	66	+3
	North of Pleasant Valley Road	62	66	+4
Golden Center Drive	East of Missouri Flat	59	61	+2
Industrial Drive	West of Missouri Flat	56	57	+1
Enterprise Drive	West of Missouri Flat	59	60	+1
Oro Lane	North of SR-49	48	49	+1
Koki Lane	South of SR-49	62	63	+1
Patterson Drive	South of SR-49	60	61	+1
China Garden Road	Missouri Flat Road to SR-49	60	61	+1
Lime Kiln Road	West of SR-49	55	67	+12
Black Rice Road	East of SR-49	51	55	+4
Racquet Way	North of Pleasant Valley Road	54	55	+1
Throwita Way	North of Diamond Springs Parkway	N/A	56	N/A
	South of Diamond Springs Parkway	N/A	61	N/A
Truck Street	West of SR-49	52	51	-1
Bradley Drive	West of SR-49	55	45	-10
Diamond Springs Parkway	Missouri Flat Road to Project Driveway #1	N/A	71	N/A
	Project Driveway #1 to Project Driveway #2	N/A	71	N/A
	Project Driveway #2 to Throwita Way	N/A	71	N/A
	Throwita Way to SR-49	N/A	70	N/A
Notes: Bold level represents potential noise impact. Source: Bollard Acoustical Consultants Inc. using Federal Highway Administration (FHWA) RD-77-108 with inputs from the KHA 2010 project TIA.				

As shown in Table 6-3, traffic noise exposure will increase significantly along many roadways in the project area relative to existing traffic conditions. However, as shown in Table 4.9-16 of Section 4.9, Noise, the project-related contribution to these increases is 1 dB or less except along Lime Kiln Road

between Diamond Road (SR-49) and the new MRF access point. Mitigation is proposed that would require the use of a temporary noise barrier until a permanent noise barrier could be constructed, thereby reducing impacts to less than significant. Other projects would be required to evaluate offsite roadway noise and, if necessary, mitigate for such impacts. Thus, the Proposed Project would not combine with other projects to cause a cumulatively considerable increase in ambient roadway noise.

The Proposed Project's construction and operational vibration levels would not exceed applicable thresholds. Because vibration is a highly localized phenomenon, there would be no possibility for vibration associated with the Project to combine with vibration from other projects because of their distances from the project site. Therefore, the Proposed Project would not contribute to a cumulatively considerable vibration impact.

Construction and operational noise resulting from the Proposed Project would result in substantial temporary or periodic increases in ambient noise levels due to the use of construction equipment, vehicles utilizing the proposed realigned MRF access, and parking lot sweeping. Mitigation is proposed that would reduce these impacts to a less than significant level. Other approved projects would be required to evaluate temporary or periodic noise increases and, if necessary, mitigate for such impacts. Thus, the Proposed Project would not combine with other projects to cause a cumulatively considerable increase in temporary or periodic noise increases.

Public Services and Utilities

The geographic scope of the cumulative public services and utilities analysis is the service area of each of the providers serving the Proposed Project. Because of differences in the nature of the public service and utility topical areas, they are discussed separately.

Fire Protection/Emergency Medical Services

The geographic scope of the cumulative fire protection and emergency medical services analysis is the Diamond Springs-El Dorado Fire District service area, which encompasses 93 square miles within El Dorado County.

The Fire District expressed concern regarding the ability of existing fire flows to serve the Proposed Project. Mitigation would ensure a Facility Report Plan is submitted to address the expansion of water lines and specific fire flow requirements. The Fire District did not indicate that the Proposed Project would otherwise have a significant impact on fire services and would not create the need for new or expanded fire protection facilities. Other development projects would be reviewed for impacts on fire protection and emergency medical services, and would be required to address any potential impacts. Because demand for fire protection and emergency medical services is highly dependent on a number of factors that vary substantially by project (hours of operation, fire prevention measures, occupancy by sensitive populations, etc.), it is further unlikely that there would be substantial overlap in demand between these projects and the Proposed Project that would result in a cumulatively considerable impact. Therefore, the Proposed Project, in conjunction with other

planned and approved projects, would not have a cumulatively considerable impact on fire protection and emergency medical services.

Police Protection

The geographic scope of the cumulative police protection analysis is the El Dorado County Sheriff Department's Diamond Springs/Placerville service area.

The El Dorado County Sheriff's Department provided written responses regarding the Proposed Project indicating that an increase in property crimes and crimes against persons would be expected as a result of the Proposed Project, potentially necessitating an increase in the number of officers needed to serve the Diamond Springs/Placerville area. Mitigation is proposed requiring the establishment of security patrol to ensure the Proposed Project would not create a need for new or expanded police protection facilities. Other development projects in the Diamond Springs/Placerville area would be reviewed for impacts on police protection and would be required to address any potential impacts with mitigation. Because demand for police protection is highly dependent on a number of factors that vary substantially by project (business clientele, hours of operation, crime prevention measures, etc.), it is unlikely that there would be substantial overlap in demand that would result in a cumulatively considerable impact. Therefore, the Proposed Project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on police protection.

Potable Water

The geographic scope of the cumulative potable water analysis is the El Dorado Irrigation District's (EID's) potable water service area, which includes Division 2 and Service Zone 7 in which the Proposed Project is located.

The EID indicated sufficient potable water is available to serve the Proposed Project, but that a Facility Report Plan would be required. Mitigation would ensure a Facility Report Plan is submitted to address the expansion of water lines and specific fire flow requirements. To minimize the Proposed Project's potential cumulative impacts on long-term water supply mitigation would require the Project applicant to implement outdoor irrigation and indoor domestic water conservation measures and practices. All planned and approved development projects in the EID service area also would be required to demonstrate that potable water and fire flow supply sources are available, and these projects may be required to implement water conservation measures. Therefore, the Proposed Project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on potable water supply.

Wastewater

The geographic scope of the cumulative wastewater analysis is EID's Deer Creek wastewater service area, which provides service to approximately 24 square miles in El Dorado County.

The EID indicated sufficient wastewater capacity is available to serve the Proposed Project. All planned and approved projects would be required to demonstrate that sewer service is available to ensure that adequate sanitation can be provided. Accordingly, the Proposed Project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on wastewater.

Storm Drainage

The geographic scope of the cumulative storm drainage analysis is the downstream waterways that receive runoff from the project site.

All planned and approved development projects in the project vicinity would be required to provide drainage facilities that collect and detain runoff such that offsite releases are controlled and do not create flooding. The Proposed Project would be served by onsite drainage facilities that would impound runoff and ensure that it is released at a rate no greater than pre-development conditions. As such, the Proposed Project would ensure that no net increase in stormwater would leave the project site; therefore, no incremental contribution to potential cumulative impacts would occur. The Proposed Project would implement standard pollution prevention measures during construction to ensure that downstream water quality impacts are minimized to the greatest extent possible. In addition, the Proposed Project would provide water quality measures to prevent pollution during daily operations. Therefore, the Proposed Project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on storm drainage.

Solid Waste

The geographic scope of the cumulative solid waste analysis comprises those projects contributing to the Kiefer Landfill in Sacramento County and Forward Landfill in San Joaquin County .

Planned and approved development projects would generate construction and operational solid waste and, depending on the volumes and end uses, would be required to implement construction and operation recycling and waste reduction measures. The Proposed Project is anticipated to generate 546.6 tons of solid waste during construction and 673.2 tons annually during operations. Mitigation is included that would require the Project applicant to retain a qualified contractor to perform construction and demolition debris recycling and to install onsite facilities necessary to collect and store recyclable materials and green waste. These practices would reduce substantial quantities of solid waste produced during construction and operation from entering the solid waste stream. Landfill capacity would thereby be conserved, and the Project's impacts would be reduced to a less than significant level. Even without such measures, the contribution of the Project during the remaining lifetime of the landfill will be about 0.04 percent. Thus, the contribution of the Proposed Project would not be cumulatively considerable.

Energy

The geographic scope of the cumulative energy analysis is the Pacific Gas and Electric (PG&E) service area, which encompasses all or part of 47 counties in California, constituting most of the northern and central portions of the State.

Future development projects in the PG&E service area would be required to comply with Title 24 energy efficiency standards. The Proposed Project would demand an estimated 6.2 million kilowatt-hours (kWh) of electricity on an annual basis. The Proposed Project's structures would be designed in accordance with Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC], and water heating systems), indoor and outdoor lighting, and illuminated signs. As with any project in California, projects in El Dorado County are required to comply with Title 24. The Proposed Project also would incorporate a number of energy conservation measures that exceed Title 24 requirements, as described in Section 3, Project Description. The incorporation of the most recent Title 24 standards and other conservation measures into the Project would ensure that the Project would not result in the inefficient, unnecessary, or wasteful consumption of energy. Therefore, the Proposed Project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on energy consumption.

Transportation

The geographic scope of the cumulative transportation analysis is the roadway system in the vicinity of Diamond Springs. These are the roadways that are evaluated in Section 4.11, Transportation.

Planned and approved development projects listed in Table 6-1 and Table 6-2 would generate new vehicle trips that may trigger or contribute to unacceptable intersection, roadway segment, freeway facility, or queuing operations. All projects would be required to mitigate for their fair share of impacts, in accordance with County requirements. The Proposed Project would generate 296 trips during the weekday morning (AM) peak hour and 435 trips during the weekday afternoon (PM) peak hour. The Proposed Project would contribute vehicle trips to intersections, roadway segments, and queuing that would operate at unacceptable levels under Year 2015 and 2025 conditions. Mitigation is proposed that would fully mitigate all impacts to a level of less than significant. Additionally, the Proposed Project would be required to implement a construction traffic and parking plan to minimize impacts to surrounding roadways and land uses. Other planned and approved projects would also be required to implement similar plans during construction to mitigate impacts. Therefore, the Proposed Project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on transportation.

6.4 - Energy Conservation

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted Assembly Bill (AB) 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts (MWs) or larger, develop energy technologies and renewable energy resources, plan for and direct State responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines. Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy.

For the reasons set forth below, this EIR concludes that the Proposed Project will not result in the wasteful, inefficient, and unnecessary consumption of energy; will not cause the need for additional natural gas or electrical energy-producing facilities; and, therefore, will not create a significant impact on energy resources.

6.4.1 - Regulatory Setting

Federal and state agencies regulate energy use and consumption through various means and programs. At the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. At the state level, the California Public Utilities Commission (CPUC) and the CEC are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards. California is exempt under federal law from setting state fuel economy standards for new on-road motor vehicles. Some of the more relevant federal and State of California energy-related laws and plans are discussed below.

Federal Energy Policy and Conservation Act

The Federal Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel

economy standards for on-road motor vehicles in the US. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the United States Department of Transportation, is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States. The Corporate Average Fuel Economy (CAFE) program, which is administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer, based on city and highway fuel economy test results and vehicle sales. On the basis of the information generated under the CAFE program, the United States Department of Transportation is authorized to assess penalties for noncompliance. In the course of its over 30-year history, this regulatory program has resulted in vastly improved fuel economy throughout the nation's vehicle fleet.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) such as the Association of Bay Area Governments (ABAG) were required to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values that were to guide transportation decisions in that metropolitan area. The planning process for specific projects would then address these policies. Another requirement was to consider the consistency of transportation planning with federal, State, and local energy goals. Through this requirement, energy consumption was expected to become a decision criterion, along with cost and other values that determine the best transportation solution.

The Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including providing assistance to public agencies and fleet operators, encouraging urban designs that reduce vehicle miles traveled, and accommodating pedestrian and bicycle access.

Title 24, Energy Efficiency Standards

Title 24, which was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, since the energy efficiency standards went into effect in 1978, it is estimated that California residential and nonresidential consumers have reduced their utility bills by at least \$15.8 billion. The CEC further estimates that by 2011, residential and nonresidential consumers will save an additional \$43 billion in energy costs.

In 2008, the CEC adopted new energy efficiency standards. All projects that apply for a building permit after December 2008 must adhere to the new 2008 standards. A copy of the 2008 Energy Efficiency Standards can be reviewed online at www.energy.ca.gov/title24/2008standards. The 2008 Energy Efficiency Standards may also be reviewed at the Energy Efficiency Division, California Energy Commission, 1516 Ninth Street, MS-29, Sacramento, California, 95814-5512.

Because the adoption of Title 24 post-dates the adoption of AB 1575, it has generally been the presumption throughout the State that compliance with Title 24 (as well as compliance with the federal and State regulations discussed above) ensures that projects will not result in the inefficient, wasteful, and unnecessary consumption of energy. As is the case with other uniform building codes, Title 24 is designed to provide certainty and uniformity throughout the State while ensuring that the efficient and non-wasteful consumption of energy is carried out through design features. Large infrastructure transportation projects that cannot adhere to Title 24 design-build performance standards may, depending on the circumstances, undertake a more involved assessment of energy conservation measures in accordance with some of the factors set forth in Appendix F of the CEQA Guidelines. As an example, pursuant to the California Department of Transportation CEQA implementation procedures and Federal Highway Administration (FHWA) Technical Advisory 6640.8A, a detailed energy study is generally only required for large-scale infrastructure projects. However, for the vast majority of residential and nonresidential projects, adherence to Title 24 is deemed necessary to ensure that no significant impacts occur from the inefficient, wasteful, and unnecessary consumption of energy. As a further example, the adoption of federal vehicle fuel

standards, which have been continually improved since their original adoption in 1975, have also protected against the inefficient, wasteful, and unnecessary use of energy.

According to the CEC, reducing energy use has been a benefit to all. Building owners save money, Californians have a more secure and healthy economy, the environment is less negatively impacted, and our electrical system can operate in a more stable state. The 2005 Standards (for residential and nonresidential buildings) are expected to reduce the growth in electricity use by 479 gigawatt-hours per year (GWh/y) and reduce the growth in natural gas use by 8.9 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 143 GWh/y of electricity savings and 0.5 million therms. Additional savings result from the application of the Standards on building alterations. In particular, requirements for cool roofs, lighting, and air distribution ducts are expected to save about 175 GWh/y of electricity. These savings are cumulative—doubling in two years, tripling in three, etc. Table 6-4 provides a summary of the electricity savings envisioned by the 2005 standards.

Table 6-4: Electricity Savings Projected From the 2005 Standards

Category	2001 Standard (GWh)	2005 Standard (GWh)	Savings (GWh)	Percent Reduction
Lighting	861.6	777.5	84.1	9.8
Heating	38.8	36.9	1.9	4.9
Cooling	537.5	501.5	35.9	6.7
Fans	424.7	403.6	21.1	5.0
Total	1,862.6	1,719.5	143.0	7.7
Notes: GWh = Gigawatt hours Source: California Energy Commission, 2005.				

Since the California 2000-2001 electricity crisis, the CEC has placed greater emphasis on demand reductions. Changes in 2001 (following the electricity crisis) reduced electricity demand for newly constructed residential and nonresidential buildings by about 110.3 MW each year. Newly constructed nonresidential buildings account for 44 MW of these savings. Like energy savings, demand savings accumulate each year. The 2005 Standards are expected to reduce electric demand by another 180 MW each year. Table 6-5 provides a summary of the demand savings envisioned by the 2005 standards.

Table 6-5: Demand Savings Projected From the 2005 Standards

Category	2001 Standard (MW)	2005 Standard (MW)	Savings (MW)	Percent Reduction
Lighting	157.9	142.6	15.3	9.7
Heating	3.6	3.5	0.1	2.2
Cooling	276.7	253.1	23.6	8.5
Fans	79.7	74.6	5.0	6.3
Total	517.9	473.9	44.0	8.5
Notes: MW = Megawatts Source: California Energy Commission, 2005.				

Many experts believe that burning fossil fuel is a major contributor to global warming; carbon dioxide is being added to an atmosphere already containing 25 percent more than it did two centuries ago. Carbon dioxide and other greenhouse gases create an insulating layer around the Earth that leads to global climate change. CEC research shows that most of the sectors of the state economy face significant risk from climate change, including agriculture, forests, and the natural habitats of a number of indigenous plants and animals.

Scientists recommend that actions be taken to reduce emissions of carbon dioxide and other greenhouse gases. While adding scrubbers to power plants and catalytic converters to cars are steps in the right direction (both of which are currently enforced as part of existing regulatory schemes), the use of energy-efficient standards can be effective actions to limit the carbon dioxide that is emitted into the atmosphere. According to the CEC, using energy efficiently, in accordance with Title 24 Energy Efficiency standards, is a proven, far-reaching strategy that can and does present an important contribution to the significant reduction of greenhouse gases.

In fact, the National Academy of Sciences has urged the country to follow California's lead on such efforts, and it has recommended that energy efficiency building codes modeled after Title 24 be adopted nationwide. The CEC's Title 24 program has played a vital, if not the most important, role in maximizing energy efficiency and preventing the wasteful, inefficient, and unnecessary use of energy throughout the State.

The CEC's 2005 Energy Efficiency Standards include the following:

- Time Dependent Valuation (TDV). Source energy was replaced with TDV energy. TDV energy values energy savings greater during periods of likely peak demand, such as hot summer weekday afternoons, and values energy savings less during off-peak periods. TDV gives more credit to measures such as daylighting and thermal energy storage that are more effective during peak periods.

- **New Federal Standards.** Coincident with the 2005 Standards, new standards for water heaters and air conditioners took effect. These changes affect all residential buildings, but they also affect many nonresidential buildings that use water heaters and/or residential-size air conditioners.
- **New Lighting in Historic Buildings.** The exception to the Standards requirements for historic buildings has changed for lighting requirements so that only specific historic or historic replica components are exempt.
- **Cool Roofs.** The nonresidential prescriptive standards require cool roofs—high-reflectance, high-emittance roof surfaces or exceptionally high-reflectance and low-emittance surfaces—in all low-slope applications. The cool-roof requirements also apply to roof replacements for existing buildings.
- **Acceptance Requirements.** Basic “building commissioning,” at least on a component basis, is required for electrical and mechanical equipment that is prone to improper installation.
- **Demand Control Ventilation.** Controls that measure CO₂ concentrations and vary outside air ventilation are required for spaces such as conference rooms, dining rooms, lounges, and gyms.
- **T-bar Ceilings.** Placing insulation directly over suspended ceilings is not permitted as a means of compliance, except for limited applications.
- **Relocatable Public School Buildings.** Special compliance approaches are added for relocatables so they can be moved anywhere statewide.
- **Duct Efficiency.** R-8 duct insulation and duct sealing with field verification is required for ducts in unconditioned spaces in new buildings. Duct sealing is also required in existing buildings when the air conditioner is replaced. Performance methods may be used to substitute a high-efficiency air conditioner in lieu of duct sealing.
- **Indoor Lighting.** The lighting power limits for indoor lighting are reduced in response to advances in lighting technology.
- **Skylights for Daylighting in Buildings.** The prescriptive standards require that skylights with controls to shut off the electric lights are required for the top story of large, open spaces (spaces larger than 25,000 feet with ceilings higher than 15 feet).
- **Thermal Breaks for Metal Building Roofs.** Continuous insulation or thermal blocks at the supports are required for metal building roofs.
- **Efficient Space Conditioning Systems.** A number of measures are required that improve the efficiency of HVAC systems, including variable-speed drives for fan and pump motors greater than 10 horsepower, electronically commutated motors for series fan boxes, improved controls, efficient cooling towers, and water-cooled chillers for large systems.

- **Unconditioned Buildings.** New lighting standards—lighting controls and power limits—apply to unconditioned buildings, including warehouses and parking garages. Lighting power tradeoffs are not permitted between conditioned and unconditioned spaces.
- **Compliance Credits.** Procedures are added for gas cooling, underfloor ventilation.
- **Lighting Power Limits.** The Standards set limits on the power that can be used for outdoor lighting applications such as parking lots, driveways, pedestrian areas, sales canopies, and car lots. The limits vary by lighting zones or ambient lighting levels. Lighting power tradeoffs are not permitted between outdoor lighting and indoor lighting.
- **Shielding.** Luminaires in hardscape areas larger than 175 watts are required to be cutoff luminaires, which will save energy by reducing glare.
- **Bi-level Controls.** In some areas, outdoor lighting controls are required, including the capability to reduce lighting levels to 50 percent.
- **Lighting Power Limits.** Lighting power limits (or alternative equipment efficiency requirements) apply to externally and internally illuminated signs used either indoors or outdoors.

Pursuant to the California Building Standards Code and the Title 24 Energy Efficiency Standards, the County will review the design and construction components of the Project's Title 24 compliance when specific building plans are submitted.

6.4.2 - Energy Requirements of the Proposed Project

Short-term construction and long-term operational energy consumption are discussed below.

Short-Term Construction

The EPA regulates non-road diesel engines. The EPA has no formal fuel economy standards for non-road (e.g., construction) diesel engines but does regulate diesel emissions, which indirectly affects fuel economy. In 1994, EPA adopted the first set of emissions standards (Tier 1) for all new non-road diesel engines greater than 37 kilowatts (kw) (50 horsepower). The Tier 1 standards were phased in for different engine sizes between 1996 and 2000, reducing nitrogen oxide (NO_x) emissions from these engines by 30 percent. The EPA has since adopted more stringent emission standards for NO_x, hydrocarbons, and particulate matter from new non-road diesel engines. This program includes the first set of standards for non-road diesel engines less than 37 kw. It also phases in more stringent Tier 2 emission standards from 2001 to 2006 for all engine sizes and adds yet more stringent Tier 3 standards for engines between 37 and 560 kw (50 and 750 hp) from 2006 to 2008. These standards will further reduce non-road diesel engine emissions by 60 percent for NO_x and 40 percent for particulate matter (PM) from Tier 1 emission levels. In 2004, EPA issued the Clean Air Non-road Diesel Rule. This rule will cut emissions from non-road diesel engines by more than 90 percent: it took effect beginning in 2008 and will be fully phased in by 2014. These emission standards are

intended to promote advanced clean technologies for non-road diesel engines that improve fuel combustion, but they also result in slight decreases in fuel economy.

Table 6-6 provides an estimate of the project construction fuel consumption. The construction assumptions contained in the tables are the same as those used in the construction air quality analysis.

Table 6-6: Construction Fuel Consumption

Phase	Activity	Fuel Consumption (gallons)
Building Construction	Fine grading	94,730
	Paving	12,275
	Construction	343,542
Total		450,546
Source: MBA, 2009.		

As shown in the above table, construction activities associated with the Proposed Project are estimated to consume approximately 450,546 gallons of diesel. The Proposed Project consists of the construction of a retail center on a site that would be mostly level, due to grading and soil borrowing for the Diamond Springs Parkway. As such, energy intensive construction activities such as mass grading would not be necessary under this Project. Furthermore, the type of construction contemplated (slab-on-grade, masonry block unit) is fairly common and would not require the use of an unusually large construction fleet or non-standard equipment. Accordingly, it is expected that construction fuel consumptions associated with the Proposed Project would be similar to those of other, comparable construction sites in the region and, therefore, would not be inefficient, wasteful, or unnecessary.

Long-Term Operations

Transportation Energy Demand

Vehicle fuel efficiency is regulated at the federal level. Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration is responsible for establishing additional vehicle standards and for revising existing standards. The fuel economy standard for new passenger cars has been 27.5 miles per gallon since 1990. The fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon since 1996. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Table 6-7 provides an estimate of the daily fuel consumed by vehicles traveling to and from the Proposed Project. These estimates were derived using the same assumptions used in the long-term vehicular air quality analysis in Section 4.2, Air Quality.

Table 6-7: Vehicle Fuel Consumption

Vehicle Type	Percent of Vehicle Trips	Daily Vehicle Miles Traveled	Average Fuel Economy (miles per gallon)	Daily Consumption (gallons)
Passenger cars	57	29,476	21.6	1,365
Light trucks	19.7	10,188	17.2	592
Heavy trucks/ other	16.9	8,739	6.1	1,433
Motorcycles	6.4	3,310	50.0	66
Total	100.0	51,713	—	3,456
Notes: Daily trips and vehicle miles traveled provided by URBEMIS Air Quality Modeling output contained in Appendix C. Average fuel economy provided by the United States Department of Transportation, Bureau of Transportation Statistics. “Other” consists of urban buses, school buses, and motor homes. Source: MBA, 2010.				

As shown in the table, daily vehicular fuel consumption is estimated to be 3,456 gallons of fuel. Since the Proposed Project would primarily cater to residents living in the Diamond Springs and Placerville area, it can be reasoned that the Proposed Project’s trips would not be significantly greater than the average regional trip length. Furthermore, the multiple retail uses that would occupy the center would provide for internal trip capture. Therefore, the DDRC would be well positioned to reduce trip lengths by providing a one-stop shopping destination. As such, it is expected that vehicular fuel consumption associated with the Proposed Project would not be any more inefficient, wasteful, or unnecessary than for any other similar land use in the region.

Building Energy Demand

The Proposed Project is estimated to demand 6.2 million kWh of electricity. These figures were derived from energy consumption rate provided by the United States Energy Information Administration. Refer to Impact PSU-7 in Section 4.10, Public Services and Utilities, for further discussion about the calculation used to arrive at this consumption estimate.

Energy Conservation Design Features and Mitigation Measures

Design Features

As discussed in Section 3, Project Description, the Project applicant has proposed various sustainability features that would reduce energy demand. These features are listed below:

- T-8 fluorescent lamps and electronic ballasts would be utilized. These are the most energy-efficient lighting systems available and reduce the energy load of a single store by approximately 15 to 20 percent compared with conventional lighting.

- Light Emitting Diode (LED) lighting would be installed in all internally illuminated building signage. LED technology is greater than 70 percent more energy-efficient than fluorescent illumination and provides an extended life span of 12 to 20+ years.
- Daylight harvesting systems (e.g., skylights, electronic dimming ballasts, computer-controlled daylight sensors) would automatically and continuously dim all of the lights as the daylight contribution increases.
- Nighttime lighting dimming would reduce illumination to 65 percent during the late-night hours.
- Super-high-efficiency packaged HVAC units that have a weighted Energy Efficiency Ratio of 11.25 would be utilized. This ratio is 10 percent higher than the industry standard, weighted average.
- Refrigeration waste-heat recapture systems would heat water in the kitchen preparation areas. On average, waste heat accounts for 70 percent of the hot-water heating needs.
- A white membrane roof with a high solar reflectivity would lower the cooling load by approximately 8 percent.
- Occupancy sensors in non-sales areas would automatically turn off the lights when the space is unoccupied.
- Shade trees in the parking lot would reduce heat adjacent to the store and require less usage of electricity to cool the store.
- Fans may be used instead of air conditioning during certain periods to reduce electricity usage.

Mitigation Measures

The following mitigation measures would directly and indirectly reduce energy consumption:

- **Mitigation Measure AIR-3b:** Shower and locker facilities shall be installed in major anchor buildings, as well commercial, office, and industrial buildings to encourage employees to bike and/or walk to work. A minimum of three lockers for every 25 employees shall be installed. Each building shall have two showers installed.
- **Mitigation Measure AIR-3c:** The Project shall install display cases or kiosks displaying transportation information (ridesharing information, transit schedules, bicycle route and path information) in a prominent area accessible to employees and visitors.
- **Mitigation Measure AIR-3d:** The project buildings shall be designed and built to achieve an average of 20 percent efficiency above current Title 24 requirements to increase energy efficiency and reduce emissions associated with electricity generation. The method for achieving the 20 percent efficiency will depend on project specifics not known at this time, such as insulation values.

- **Mitigation Measure PSU-3a:** Prior to issuance of building permits, the Project applicant shall submit final landscaping plans in accordance with the plans submitted as part of the project application to El Dorado County for review and approval. The final landscaping plans shall be in accordance with the Model Landscape and Water Conservation Standards and include the following outdoor irrigation water conservation measures:
 - Separate metering of irrigation water
 - Drought-resistant vegetation
 - Irrigation systems employing at least four of the following features:
 - o Drip irrigation
 - o Low-precipitation-rate sprinklers
 - o Bubbler/soaker systems
 - o Programmable irrigation controllers with automatic rain shutoff sensors
 - o Matched-precipitation-rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system
 - o Conservative sprinkler spacings that minimize overspray onto paved surfaces
 - o Hydrozones that keep plants with similar water needs in the same irrigation zone
 - o Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration
 - o Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention

Title 24 Compliance

The Proposed Project's structures would be required to meet with the energy efficiency requirements of Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs.

Conclusion

Collectively, these design features, mitigation measures, and mandatory requirements would ensure that the Project would not result in the inefficient, unnecessary, or wasteful consumption of energy. Impacts would be less than significant.

6.5 - Effects Found Not To Be Significant

6.5.1 - Aesthetics, Light, and Glare

Scenic Vista

The project site contains 30.63 acres of highly disturbed land, ruderal (weedy) vegetation, and large shrubs and trees. Large portions of the project site are currently used, or have been used in the past, for storage and parking for the surrounding industrial land uses. The project site does not contain any

scenic vistas or features associated with scenic vistas (e.g., ridgelines, peaks, overlooks). Furthermore, the project site is not located in an area designated as containing a scenic vista or in the proximity of a scenic vista as shown on Exhibit 5.3-1 of the El Dorado County General Plan EIR (EDAW 2004). Accordingly, no scenic features would be adversely affected by the Proposed Project. Therefore, no impacts would occur.

Scenic Highway

The State of California identifies SR-49 as a potential Scenic Highway. However, SR-49 is not identified as a scenic roadway in the current General Plan's Draft EIR Exhibit 5.3-1. Although SR-49 is eligible for designation as a Scenic Highway, the County has not pursued nomination of any portion of the highway. Accordingly, the Project will not damage any trees, rock outcroppings, or historic buildings within a State scenic highway corridor. Therefore, no impact would occur.

6.5.2 - Agricultural Resources

Important Farmland

The Proposed Project site does not contain agricultural land and, therefore, would not be eligible for an Important Farmland designation. In addition, the California Farmland Mapping and Monitoring Program designates the project site as Urban and Built-up Land, which precludes the possibility of Important Farmland from being present on the project site. Accordingly, the development of the Project would not convert Important Farmland to non-agricultural use. No impacts would occur.

Williamson Act Contracts or Agricultural Zoning

The Proposed Project site does not contain active agricultural land. Therefore, the site not would be eligible for a Williamson Act contract. The project site is designated Industrial (I) by the El Dorado County Zoning Ordinance, which is a non-agricultural zoning designation. This condition precludes the possibility of the Project conflicting with an active Williamson Act contract or an agricultural zoning designation. No impacts would occur.

Conversion of Farmland to Non-Agricultural Use

There is no active farmland in the project vicinity. This condition precludes the possibility of the development of the Proposed Project creating pressures to convert surrounding farmland to non-agricultural use. No impacts would occur.

6.5.3 - Biological Resources

Conservation Plans

The Project is not located in an area covered by any approved habitat conservation plan, natural community conservation plan, or other conservation plan. This condition precludes the possibility of adverse impacts resulting from implementation of the Proposed Project. No impacts would occur.

6.5.4 - Geology, Soils, and Seismicity

Septic and Alternative Wastewater Systems

The Proposed Project would be served by the El Dorado Irrigation District's wastewater collection system. No septic or alternative wastewater disposal systems exist onsite and none would be installed as part of the Project. No impacts would occur.

6.5.5 - Hazards and Hazardous Materials

Exposure of Schools to Hazardous Materials

There are no schools located within a 0.25-mile radius of the project site. The nearest school to the project site is Independence High School, located approximately 0.45 mile southwest of the project site. This distance precludes the possibility of activities associated with the Proposed Project exposing schools within a 0.25-mile radius of the project site to hazardous materials. No impacts would occur.

Aviation Hazards

The Proposed Project site is more than 2.75 miles from Placerville Airport, the nearest airport to Diamond Springs. This distance precludes the possibility of the Project exposing persons working in the project vicinity to aviation hazards. No impacts would occur.

Private Airstrips

The Proposed Project site does not occur near or in the vicinity of a private airstrip. Therefore, the development of the Project would not expose persons working in the project area to aviation hazards associated with private airstrips. No impacts would occur.

6.5.6 - Hydrology and Water Quality

100-Year Flood Hazards

The Proposed Project occurs within a portion of Flood Insurance Rate Map No. 06017C0775E. The map indicates that the project site is not located within a 100-year flood hazard area. The Proposed Project does not include any housing. These conditions preclude the possibility of the Proposed Project being exposed to 100-year flood hazards or placing housing with a 100-year flood hazard area. No impact would occur.

Levee or Dam Failure

The project site is not located in a dam failure inundation zone as depicted by the El Dorado County General Plan. The project site is not protected by any levees. These conditions precludes the possibility of the project site being inundated by floodwaters as a result of levee or dam failure. No impacts would occur.

Seiche, Tsunamis, or Mudflows

There are no inland water bodies that could potentially be susceptible to a seiche in the project vicinity. This precludes the possibility of a seiche inundating the project site. The project site is more than 100 miles from the ocean, precluding the possibility of tsunami inundation. The project site is not at the base of any significant slopes and, therefore, would not be susceptible to mudflow inundation. No impact would occur.

6.5.7 - Land Use

Conservation Plans

The Project is not located in an area covered by any approved habitat conservation plan, natural community conservation plan, or other conservation plan. This condition precludes the possibility of adverse impacts resulting from implementation of the Proposed Project. No impacts would occur.

6.5.8 - Mineral Resources

Mineral Resources of Statewide or Local Importance

Figure CO-1 of the El Dorado County General Plan indicates the project site is not located within an important Mineral Resource area. The project site does not contain any active mineral extraction operations. Furthermore, the project site is not located in a Mineral Resource Zone designated by the State. Therefore, the development of the Proposed Project would not result in the loss of a mineral resource of statewide or local significance. No impacts would occur.

6.5.9 - Noise

Aviation Noise

The Proposed Project site is more than 2.75 miles from Placerville Airport, the nearest airport to Diamond Springs. This distance precludes the possibility of the Project exposing persons working in the project vicinity to excessive aviation noise. No impacts would occur.

6.5.10 - Population and Housing

Growth Inducement

The Proposed Project would not develop any residential uses and, therefore, would not directly induce population growth through the provision of new dwelling units. The proposed DDRC is expected to create new jobs. Data provided by the California Employment Development Department indicate that, as of December 2009, El Dorado County had 11,500 unemployed persons, resulting in an unemployment rate of 12.6 percent. Given the nature of the job opportunities and the availability of labor, it would be expected that the new employment opportunities could be readily filled from the local labor force. For these reasons, the Project would not induce substantial population growth. No impacts would occur.

Displacement of Persons or Housing

The project site contains 30.63 acres of highly disturbed land, ruderal (weedy) vegetation, and large shrubs and trees. Large portions of the project site are currently used or have been used in the past for storage and parking for the surrounding industrial land uses. There are no dwelling units on the project site. Therefore, the Project would not result in the displacement of persons or housing. No impacts would occur.

6.5.11 - Public Services and Utilities

Schools

The Proposed Project does not contain any residential uses and would not directly induce population growth. The new employment opportunities created by the Proposed Project would not induce substantial population growth into El Dorado County from outside areas. Therefore, the Project would not result in the need for new or expanded school facilities. No impacts would occur.

Parks

The Proposed Project does not contain any residential uses and would not directly induce population growth. The new employment opportunities created by the Proposed Project would not induce substantial population growth into El Dorado County from outside areas. Therefore, the Project would not result in the need for new or expanded park facilities. No impacts would occur.

Other Public Facilities

The Proposed Project does not contain any residential uses and would not directly induce population growth. The new employment opportunities created by the Project would not induce substantial population growth into El Dorado County from outside areas. Therefore, the Project would not result in the need for a new or expanded library or other public facilities. No impacts would occur.

6.5.12 - Recreation

Physical Deterioration of Recreational Facilities

The Proposed Project does not contain any residential uses and would not directly induce population growth. The new employment opportunities created by the Project would not induce substantial population growth into El Dorado County from outside areas. Therefore, the Project would not cause physical deterioration of existing recreational facilities from increased usage. No impacts would occur.

New or Expanded Recreational Facilities

The Proposed Project does not contain any residential uses and would not directly induce population growth. The new employment opportunities created by the Proposed Project would not induce substantial population growth into Tuolumne County area from outside areas. Therefore, the Project would not result in the need for new or expanded recreational facilities. No impacts would occur.

6.5.13 - Transportation

Air Traffic Patterns

The Proposed Project site is more than 2.75 miles from Placerville Airport, the nearest airport to Diamond Springs. This distance precludes the possibility of the Project altering air traffic patterns. No impacts would occur.

SECTION 7: PERSONS AND ORGANIZATIONS CONSULTED

7.1 - Public Agencies

7.1.1 - County of El Dorado

El Dorado Irrigation District

Co-Manager of Customer and Development ServicesKevan Samsam, P.E.
Engineering Manager, Waste/Recycled Water Engineering Division Elizabeth D. Wells, P.E.

Diamond Springs-El Dorado Fire Protection District

Assistant Fire Chief – Fire Marshal..... Rob Combs
Former Assistant Fire Chief – Fire MarshalErik Peterson

El Dorado County Sheriff's Office

Sheriff – CoronerFred Kollar

7.1.2 - State of California

North Central Information Center

Researcher Ellen Bowden

Native American Heritage Commission

Debbie Pilas-Treadway Environmental Specialist III

7.2 - Private Parties and Organizations

Consulting Paleontologist

Paleontologist Kenneth L. Finger, Ph.D.

SECTION 8: LIST OF PREPARERS

8.1 - Lead Agency

8.1.1 - County of El Dorado

El Dorado County Development Services Department – Planning Services

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Project Manager Jason Brandman
Quality Control/Quality Assurance Randy Chafin, AICP
Assistant Project Manager..... Janna Waligorski
Senior Environmental Planner..... Elliot Mulberg (formerly with MBA)
Environmental Analyst..... Shawn Nevill
Air Quality Analyst Chryss Meier
Archaeologist..... Carrie D. Wills
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8.3 - Technical Subconsultants

8.3.1 - Bollard Acoustical Consultants, Inc. – Noise Analysis

Vice President..... Jason Mirise

8.3.2 - Youngdahl Consulting Group, Inc. – Environmental Site Assessments

Principal Engineer John Youngdahl, P.E.
Senior Engineer Brandon K. Shimizu, P.E., G.E.

8.3.3 - CTA Engineering – Drainage Study

Project Engineer.....Aaron Brusatori

8.3.4 - Kimley-Horn and Associates, Inc. – Traffic Impact Analysis

Traffic Engineer.....Matthew Weir, Civil Engineer

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