COUNTY OF EL DORADO

GREEN VALLEY CONVENIENCE CENTER (PD12-0003)

Draft Environmental Impact Report

STATE CLEARINGHOUSE NO. 2013062011

Prepared for:

COUNTY OF EL DORADO
2850 FAIRLANE COURT
PLACERVILLE, CA 95667

Prepared by:

Michael Baker INTERNATIONAL

2729 PROSPECT PARK DRIVE, SUITE 220
RANCHO CORDOVA, CA 95670

SEPTEMBER 2015

Exhibit M

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DRAFT ENVIRONMENTAL IMPACT REPORT

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AD3	Assessment District No. 3
AwD	Auburn silt loam with 2 to 30 percent slopes
BGEPA	Bald and Golden Eagle Protection Act
BMP	best management practices
BOE	California Board of Equalization
BOS	Board of Supervisors
BTU	British thermal units
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Cal-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
dbh	diameter at breast height
DPM	diesel particulate matter
EDCAQMD	El Dorado County Air Quality Management District
EDCTA	El Dorado County Transit Authority
EDHFD	El Dorado Hills Fire Department
EDU	equivalent dwelling unit
EIA	US Energy Information Administration
EID	El Dorado Irrigation District
EIR	environmental impact report
EPA	US Environmental Protection Agency
EPAP	Existing Plus Approved Projects
ESA	Endangered Species Act (federal)
FEMA	Federal Emergency Management Agency
FGC	Fish and Game Code
FIL	Facility Improvement Letter

FIRM	Flood Insurance Rate Map
FR	Federal Register
GHG	greenhouse gas
HDM	Highway Design Manual
HRA	health risk assessment
LOS	level of service
LPI	leading pedestrian interval
MBTA	Migratory Bird Treaty Act
MCAB	Mountain Counties Air Basin
MEV	million entered vehicles
MIAD	Mormon Island Auxiliary Dam
MND	mitigated negative declaration
mph	miles per hour
MS4	Small Municipal Separate Storm Sewer Systems
$MTCO_2e$	metric tons of carbon dioxide equivalent
MVM	million vehicle miles
NCHRP	National Cooperative Highway Research Program
NMFS	National Marine Fisheries Service
NOA	naturally occurring asbestos
NOP	notice of preparation
NPDES	National Pollutant Discharge Elimination System
OEHHA	California Office of Environmental Health Hazard Assessment
OSHA	Occupational Safety and Health Administration
PG&E	Pacific Gas and Electric Company
RPS	Renewables Portfolio Standard
RV	recreational vehicle
SAA	Streambed Alteration Agreement
SRA	State Recreation Area
SSD	stopping sight distance
SWMP	Storm Water Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminants
TIA	traffic impact analysis
USACE	US Army Corps of Engineers
USC	United States Code
USDOE	US Department of Energy
USFWS	US Fish and Wildlife Service
UST	underground storage tanks

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EXECUTIVE SUMMARY

Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15123, this section of the Draft Environmental Impact Report (Draft EIR) provides a brief summary of the project, significant impacts, and proposed mitigation measures. The remainder of the document and technical appendices provide the discussion and support for the conclusions summarized herein.

ES.1 PURPOSE AND SCOPE OF THE DRAFT ENVIRONMENTAL IMPACT REPORT

The purpose of this Draft EIR is to satisfy CEQA requirements by addressing the environmental effects specific to the implementation of the proposed Green Valley Convenience Center (project; proposed project). This Draft EIR evaluates the effects of the proposed project on the physical environment, assessing whether the proposed project would result in any significant environmental impacts. For a complete description of the project, see Chapter 2.0, Project Description, of this Draft EIR.

ES.2 PROJECT BACKGROUND

An application for the Green Valley Convenience Center project was submitted to the County in 2012. The then-proposed project consisted of eight self-service fuel pumps under a canopy, a convenience store, fast-food restaurant with a drive-through, self-service car wash, and an approximately 20-foot-tall monument sign. The County prepared a Mitigated Negative Declaration (MND) to evaluate the environmental effects of the proposed project. The MND identified potentially significant construction air quality and biological resources impacts and operational noise impacts, and mitigation measures to reduce those impacts to less than significant levels. All other impacts were determined to be less than significant, or there was no impact.

The Planning Commission considered the proposed project at a meeting in July 2013. A number of issues were raised, including noise, aesthetics, traffic, and potential impacts on an intermittent stream that runs through the project site. The Planning Commission continued the item to address these concerns. County Planning staff determined the MND needed to be revised because a new significant impact was identified. A revised MND was recirculated in August-September 2013. During that time, in response to comments on project design, the project applicant submitted revisions to the project design. The Planning Commission approved the then-proposed project in September 2013, along with conditions of approval and mitigation measures.

Following approval by the Planning Commission, the approval was appealed and subsequently heard by the Board of Supervisors in December 2013. The Board of Supervisors approved the project, along with revised conditions of approval and findings, and adopted the revised MND.

In January 2014, litigation was filed against the County associated with adoption of the revised MND. In August 2014, a Settlement Agreement was negotiated that requires preparation of an EIR that addresses the following:

A. Traffic impacts:

    1) five intersections (Green Valley Road/Sophia Parkway; Green Valley Road/Blue Ravine/E. Natoma Street; Green Valley Road/El Dorado Hills Boulevard; Green Valley Road/Amy's Lane; Sophia Parkway/Elmores/Socrates Place)

2) two roadway sections or segments (Green Valley Road from E. Natoma Street to Sophia Parkway; Green Valley Road from Sophia Parkway to El Dorado Hills Boulevard)

3) review of the installation of a "pocket lane" and installation of a full deceleration lane eastbound at Sophia Parkway and Green Valley Road

B. On-site and off-site biological and riparian impacts to the wetland crossing the project site

C. Design of the Sophia Parkway/Green Valley Road intersection as it pertains to potentially significant impacts to automobile, pedestrian, and bicycle safety

D. Alternatives as required by CEQA, including an alternative of the installation of a full deceleration lane extending east from the intersection of Green Valley Road and Sophia Parkway and the alternative of a "pocket lane" as previously considered by the Board of Supervisors

E. As required by CEQA to address subparagraphs A-D, above, the County shall update the information otherwise contained in the Negative Declaration.

As stated in the Judgment on the Settlement Agreement, the Court found that: (1) the balance of environmental issues (other than traffic and biology) were severable from those two issue areas; (2) severance of the CEQA analysis will not prejudice complete and full compliance; and (3) evaluation of CEQA issues in the MND (other than traffic and biology) met CEQA requirements.

The environmental issue areas comprising items (1) through (3), above, are: aesthetics, agriculture/forestry resources, air quality, cultural resources, geology/soils, hazards/hazardous materials, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, and utilities/service systems. Those topics are evaluated in Section 3.0.2 in the Draft EIR. Comments received on the Notice of Preparation (see below) identified aesthetics, air quality, lighting, noise, and water quality as topics that should be addressed in the Draft EIR. These topics are evaluated in this Draft EIR in Section 3.0.2.

In November 2014, County staff commenced preparation of the Draft EIR in accordance with the Settlement Agreement. The applicant has developed a revised project design that incorporates design-related conditions of approval from the prior approval. In addition, the applicant has decided to remove the fast-food restaurant component of the project.

In accordance with the Settlement Agreement, the Draft EIR evaluates in detail potential traffic and circulation impacts (Section 3.1) and biological resources impacts (Section 3.2).

ES.3 PROJECT SUMMARY

The project site is at the southeast corner of Green Valley Road and Sophia Parkway in the north El Dorado Hills area. The triangular-shaped project site is an undeveloped 2.12-acre parcel (APN 124-301-46) in Sections 21 and 28, Township 8 North, Range 8 East. The site is covered with nonnative grasses, shrubs, and a few trees. A seasonal stream bisects the southern portion of the parcel, flows west through culverts under Sophia Parkway, and continues into Mormon Island Wetland Preserve.

The proposed project would develop an ARCO-branded convenience center occupying approximately 1.3 acres of the 2.12-acre site. It would include the following:

- 4,872-square-foot open-sided canopy with eight self-service fuel pumps (16 fueling positions and two payment island cashiers) and solar panels on the canopy
- Two underground fuel storage tanks
- 3,058-square-foot convenience store
- 1,804-square-foot single-bay self-service car wash, with doors at the entrance and exit of the car wash to reduce exterior noise levels
- Air/water unit and two vacuums
- 18-foot-tall monument site identification sign (67 square feet surface area)
- On-site parking spaces for vehicles (18 spaces) and bicycles (4 spaces)
- Trash enclosure
- On-site stormwater runoff collection system
- On-site lighting, consisting of wall lights, canopy lights, and 12-foot-tall pole lights with full cutoff fixtures
- Landscaping, hardscaping, and pavement

It is anticipated it would take approximately three to four months to construct the project (approximately one month for earthwork, two months for paving and building, and one month for finish work).

The project proposes two new access points, one each on Green Valley Road and Sophia Parkway. These encroachments would be right-in and right-out only. The driveway access on Green Valley Road would be at the east end of the project, where a 135-foot-long deceleration taper would lead to the driveway. The driveway access from Sophia Parkway would be at the south end of the convenience center. The proposed project also includes installation of a raised median on Green Valley Road starting at the east side of the Sophia Parkway intersection and extending east approximately 350 feet and past the driveway access on Green Valley Road. The purpose of the raised median would be to prevent vehicles from turning left onto Green Valley Road from the access driveway on Green Valley Road.

The southeast curb return at Green Valley Road/Sophia Parkway would be modified to facilitate U-turns from westbound Green Valley Road to access the driveway on Green Valley Road. The modification would add U-turn signs and a change to the pedestrian interface button.

The project would include extensive landscaping, including numerous low-water-use, drought-tolerant plants, and a riparian revegetation plan. There would be no development within the seasonal stream or seasonal wetland in the southern part of the site. However, grading and planting for erosion control on the south side of the buildings would occur within 10 feet of the ordinary high water mark of the seasonal stream. Because the proposed project would result in grading and permanent hardscape within 50 feet of the seasonal stream and wetland, the

County of El Dorado will need to make a determination of consistency with General Plan Policy 7.3.3.4 and its interim interpretive guidelines for wetland setbacks. This determination is considered part of the proposed project because the finding would be required in conjunction with project approvals.

The project also includes several design features and stormwater controls to limit stormwater runoff to predevelopment conditions, and source and treatment controls to remove pollutants in stormwater runoff.

ES.4 PROJECT ALTERNATIVES

An EIR must evaluate a reasonable range of alternatives to the proposed project, or to the location of the proposed project that could feasibly attain most of the basic project objectives but would avoid or substantially lessen any of the project's significant effects, and evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6).

The Draft EIR includes an analysis of other access alternatives, which are described and evaluated in Section 4.0, Alternatives. The alternatives evaluate a longer deceleration taper along Green Valley Road (Alternative A) and a full deceleration lane to Amy's Lane, with driveway access to the site from Amy's Lane (Alternative B). There are two design options for the driveway access off of Amy's Lane. Under CEQA, the Draft EIR is required to identify an environmentally superior alternative. Based on the alternatives analysis, Alternative A (longer deceleration taper) would be the environmentally superior alternative. However, it should be noted that all of the project's traffic and circulation impacts would be less than significant or less than significant with mitigation. The Draft EIR also considers a Reduced Project alternative and Off-Site alternatives, which are evaluated in Section 4.5, Other Alternatives Considered.

ES.5 PUBLIC SCOPING

The County published the Notice of Preparation (NOP) for the Green Valley Convenience Center Draft EIR on December 19, 2014, for a 30-day comment period ending January 20, 2015. A public scoping meeting was held on January 14, 2015, at the El Dorado Hills Fire Department on Wilson Boulevard. The NOP and comments received on the NOP during the public review period are provided in Appendix A of this Draft EIR.

ES.6 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

The primary issue of concern raised by the public regarding the proposed project is traffic safety at the Green Valley Road/Sophia Parkway intersection and at the driveway access on Green Valley Road. In response to the Settlement Agreement and public comments, access alternatives were evaluated, as noted above, to address these concerns. An additional topic of concern is the project's impacts on riparian habitat, seasonal creek and seasonal wetland, and the species supported by these habitats as a result of project stormwater runoff, which would be directed to the seasonal stream.

ES.7 SUMMARY OF ENVIRONMENTAL IMPACTS

Table ES-1 lists project and cumulative impacts and mitigation measures, where required, to reduce impacts. All project impacts would be less than significant or less than significant with mitigation.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact		Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Transportation and Circulation				
Project Impacts				
TRA-1	The addition of project traffic to existing conditions would not result in a decline in service at the study area intersections.	LS	None required.	LS
TRA-2	The addition of project traffic at the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection would worsen LOS F conditions under Existing Plus Approved Projects (2019) conditions.	S	MM TRA-2 The applicant shall pay applicable TIM fees at the time of building permit issuance.	LS
TRA-3	The proposed project would add vehicles to the Green Valley Road/Sophia Parkway westbound left-turn lane and the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection eastbound left-turn lane that would exceed available queue lengths.	S	MM TRA-3 The applicant shall prepare and implement a signal timing plan for the Green Valley Road/Sophia Parkway intersection to provide a longer green phase for the westbound left-turn movement. The plan shall be prepared by a California-licensed civil engineer or traffic engineer and shall be submitted to the County Transportation Division. The applicant shall also restripe the protected left-turn pocket on westbound Green Valley Road to extend the length to 350 feet to coincide with the length of the raised median. The applicant shall ensure the signal timing is adjusted and restriping is completed in coordination with the County Transportation Division prior to the issuance of the occupancy permit.	LS
TRA-4	The proposed project would add vehicles to the Green Valley Road/Sophia Parkway westbound left-turn lane that would exceed available queue lengths under Existing Plus Approved Projects (2019) conditions.	S	Implement Mitigation Measure MM TRA-3.	LS

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact		Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
TRA-5	The proposed project would add vehicles to the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection, but this would not exceed available queue lengths under Existing Plus Approved Projects (2019) conditions.	LS	None required.	LS
TRA-6	The addition of project traffic to Green Valley Road would not result in a decrease in roadway segment level of service.	LS	None required.	LS
TRA-7	The addition of project traffic to Green Valley Road would not result in a decrease in roadway segment level of service under Existing Plus Approved Projects (2019) conditions.	LS	None required.	LS
TRA-8	The proposed project would result in new driveway access/egress along Green Valley Road and Sophia Parkway and modifications at the Green Valley Road/Sophia Parkway intersection, but these improvements would not result in any substantial design hazards related to sight distance, vehicle throat depth, or through traffic.	LS	None required.	LS
TRA-9	The proposed project would provide services that may be used by pedestrians and bicyclists traveling past the site.	LS	None required.	LS
TRA-10	The proposed project could increase the potential for vehicle and pedestrian/bicyclist conflicts at the Green Valley Road/Sophia Parkway intersection and at the Sophia Parkway driveway.	PS	MM TRA-10 A portion of the curb along Sophia Parkway adjoining the project driveway south of project shall be marked as "No Parking." The applicant shall coordinate with the County Transportation Division to determine the specific distance where parking would be prohibited.	LS

LS = Less than Significant PS = Potentially Significant S = Significant NI = No Impact LCC = Less than Cumulatively Considerable

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		In conjunction with the signal timing change required under mitigation measure MM TRA-2, a leading pedestrian interval (LPI) shall be added to the Sophia Parkway traffic signal's northbound phase.	
TRA-11 Construction of the proposed project could affect emergency access.	PS	MM TRA-11 Project conditions of approval shall require the following: a. Soil import haul truck traffic shall be limited to non-peak hours only. The exact hours will be determined when the encroachment permit is issued, based on the most recent traffic counts available from the Transportation Division at the time the permit is issued. Haul trucks may not exit the site via left turn onto Green Valley Road. b. Prior to activities that would involve improvements on Green Valley Road and Sophia Parkway, the applicant's contractor shall notify the El Dorado County Transportation Division to determine specific traffic controls that shall be implemented, including but not limited to signage, barriers, flaggers, and notifications to public regarding potential lane closures or narrowing. c. The applicant's contractor shall maintain one open lane on Green Valley Road and Sophia Parkway at all times.	LS
Cumulative Impacts			
TRA-12 The addition of project traffic to cumulative conditions would not result in a decline in service at the study intersections.	LCC	None required.	LCC
TRA-13 The proposed project would add vehicles to the Green Valley Road/Sophia Parkway westbound left-turn lane that would exceed available queue lengths under cumulative plus project conditions.	CC	Implement Mitigation Measure MM TRA-3.	LCC

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
TRA-14 The addition of project traffic to Green Valley Road would not result in a decrease in roadway segment level of service under cumulative conditions.	LCC	None required.	LCC
TRA-15 The proposed project would not result in any substantial cumulative design hazards related to driveway access design, pedestrian/bicyclist conflicts, emergency access, or parking.	LCC	None required.	LCC
Biological Resources			
BIO-1 The proposed project would not impact any special-status plant species.	NI	None required.	NI
BIO-2 The proposed project could affect special-status raptors and birds protected under the Migratory Bird Treaty Act.	PS	MM BIO-2 <u>Preconstruction Surveys and Protection/Avoidance Measures</u>. If construction begins outside the 1 February to 31 August breeding season, there will be no need to conduct a preconstruction survey for active bird and raptor nests. If construction is scheduled to begin between 1 February and 31 August, then a qualified biologist shall conduct a preconstruction survey for active nests at the construction site. In order to avoid take (Fish and Game Code Section 86) of protected birds and raptors (Fish and Game Code Sections 3503, 3503.5, 3511, and 3513), a preconstruction bird and raptor nest survey shall be conducted within 10 days prior to the beginning of construction activities by a California Department of Fish and Wildlife (CDFW)-approved biologist in order to identify active nests in the project site vicinity. The results of the survey shall be submitted to the CDFW and County of El Dorado Development Services Division. If active raptor nests are found, a quarter-mile (1,320 feet) initial temporary nest disturbance buffer shall be established. If active passerine nests are found, a 200-foot (500 feet for special-status species) initial temporary nest disturbance	LS

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TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		buffer shall be established. If project-related activities within the temporary net disturbance buffer are determined to be necessary during the nesting season, then an on-site biologist/monitor experienced with the species' behavior shall be retained by the project proponent to monitor the nest and shall, along with the project proponent, consult with the CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed to proceed within the temporary nest disturbance buffer if birds/raptors are not exhibiting agitated behavior. In consultation with the CDFW and depending on the behavior of the birds/raptors, over time it may be determined that the on-site biologist/monitor may no longer be necessary due to the birds/raptors' acclimation to construction-related activities. The proposed actions shall be included in a work plan, approved by the CDFW, and submitted to the County of El Dorado Development Services Division. Take of a nesting bird listed under the California Endangered Species Act would require an incidental take permit.	
BIO-3 The proposed project could result in impacts on riparian habitat on-site as a result of riparian vegetation removal.	PS	MM BIO-3 a. Best management practices that conform with the County's California Stormwater Pollution Prevention Plan, issued by the State Water Resources Control Board for erosion and sediment control, shall be incorporated into the project development plans and implemented as approved by Building Services during the grading permit process. b. No equipment shall be allowed within the seasonal stream. c. Construction fencing shall be installed between the edge of construction disturbance and the seasonal stream to prevent and avoid accidental fill and/or equipment entering the setback and creek. The fencing shall be installed prior to initiation of any grading.	LS

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact		Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
			d. The project applicant shall have the current Streambed Alteration Agreement issued by the CDFW revalidated, or the applicant shall submit a new Section 1600 notification to the CDFW. A grading permit shall not be issued until documentation has been provided to the County that the existing Streambed Alteration Agreement has been revalidated, or that a Streambed Alteration Agreement is not required by the CDFW. e. Within one year of the initiation of project construction, the project applicant shall implement the revegetation plantings identified in the project landscaping plan (Figure 2.0-8 of the Draft EIR). f. Proof of planting shall be submitted to County of El Dorado Development Services Division prior to final inspection. The revegetation plantings shall be monitored annually, in the late summer or early autumn. The number and species of surviving trees shall be counted and their condition and general health recorded. A monitoring report of the number and condition of surviving trees shall be made annually for a period of five years, no later than 31 December, to the County and the CDFW. The monitoring report shall discuss the overall site conditions, compare the surviving trees to the success criterion, and recommend contingency measures if appropriate.	
BIO4	The proposed project could affect on-site or off-site riparian habitat water quality.	PS	Implement Mitigation Measure MM BIO-3.	LS
BIO-5	The proposed project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marshes, vernal pools, and coastal wetlands) through direct removal, filling, hydrological interruption, or other means.	NI	None required.	NI

LS = Less than Significant *PS = Potentially Significant* *S = Significant* *NI = No Impact* *LCC = Less than Cumulatively Considerable*

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact		Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
BIO-6	The proposed project would be within a 50-foot interim standard setback for wetlands established in County General Plan Policy 7.3.3.4.	PS	Implement Mitigation Measures MM BIO-2 and MM BIO-3.	LS
BIO-7	The proposed project could result in impacts on wildlife movement.	LS	None required.	LS
BIO-8	The proposed project would be consistent with General Plan policies protecting biological resources.	PS	Implement Mitigation Measures MM BIO-2 and MM BIO-3.	LS
BIO-9	The proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.	NI	None required.	NI
BIO-10	The proposed project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.	LS	None required.	LS
Cumulative Impacts: The proposed project would result in less than cumulatively considerable biological resources impacts.		LCC	None required.	LCC

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1.0 INTRODUCTION

1.1 PROJECT OVERVIEW

This Draft Environmental Impact Report (Draft EIR) has been prepared for the proposed Green Valley Convenience Center (proposed project). This chapter provides information about the project background, a brief description of the guiding regulations and documents that relate to this Draft EIR, and the EIR process.

The proposed project consists of the construction and operation of an ARCO gas station, convenience store, and single-bay self-service car wash on approximately 1.3 acres of a 2.12-acre parcel at the southeast corner of Green Valley Road and Sophia Parkway in the north El Dorado Hills area in El Dorado County. Section 2.0, Project Description, contains a complete description of the project location, general environmental setting, project objectives, project elements, and required approvals. The project applicant is BP West Coast Products LLC.

1.2 DOCUMENT AND PURPOSE

The California Environmental Quality Act (CEQA) requires that a local agency prepare an EIR on any discretionary action it proposes to approve that may have a significant physical effect on the environment. The purpose of an EIR is not to recommend approval or denial of a project, but to provide decision-makers, public agencies, and the general public with an objective and informational document that fully discloses the potential environmental effects of a proposed project. The EIR process is specifically designed to objectively evaluate and disclose potentially significant direct, indirect, and cumulative impacts of a proposed project; to identify alternatives that reduce or eliminate a project's significant effects; and to identify feasible measures that mitigate significant effects of a project.

The purpose of this Draft EIR is to satisfy CEQA requirements by addressing the environmental effects specific to the implementation of the proposed Green Valley Convenience Center. This Draft EIR evaluates the effects of the proposed project on the physical environment, assessing whether the proposed project would result in any significant environmental impacts.

1.3 PROJECT BACKGROUND

An application for the Green Valley Convenience Center project was submitted to the County in 2012. The then-proposed project consisted of eight self-service fuel pumps under a canopy, a convenience store, fast-food restaurant with a drive-through, self-service car wash, and an approximately 20-foot-tall monument sign. The County prepared a Mitigated Negative Declaration (MND) to evaluate the environmental effects of the proposed project. The MND identified potentially significant construction air quality and biological resources impacts and operational noise impacts, and mitigation measures to reduce those impacts to less than significant levels. All other impacts were determined to be less than significant, or there was no impact.

The Planning Commission considered the proposed project at a meeting in July 2013. A number of issues were raised, including noise, aesthetics, traffic, and potential impacts on an intermittent stream that runs through the project site. The Planning Commission continued the item to address these concerns. County Planning staff determined the MND needed to be revised because a new significant impact was identified. A revised MND was recirculated in August-September 2013. During that time, in response to comments on project design, the project applicant submitted revisions to the project design. The Planning Commission approved the then-proposed project in September 2013, along with conditions of approval and mitigation measures.

Following approval by the Planning Commission, the approval was appealed and subsequently heard by the Board of Supervisors in December 2013. The Board of Supervisors approved the project, along with revised conditions of approval and findings, and adopted the revised MND.

In January 2014, litigation was filed against the County associated with adoption of the revised MND. In August 2014, a Settlement Agreement was negotiated that requires preparation of an EIR that addresses the following:

A. Traffic impacts:

   1) five intersections (Green Valley Road/Sophia Parkway; Green Valley Road/Blue Ravine/E. Natoma Street; Green Valley Road/El Dorado Hills Boulevard; Green Valley Road/Amy's Lane; Sophia Parkway/Elmores/Socrates Place)

   2) two roadway sections or segments (Green Valley Road from E. Natoma Street to Sophia Parkway; Green Valley Road from Sophia Parkway to El Dorado Hills Boulevard)

   3) review of the installation of a "pocket lane" and installation of a full deceleration lane eastbound at Sophia Parkway and Green Valley Road

B. On-site and off-site biological and riparian impacts to the wetland crossing the project site

C. Design of the Sophia Parkway/Green Valley Road intersection as it pertains to potentially significant impacts to automobile, pedestrian, and bicycle safety

D. Alternatives as required by CEQA, including an alternative of the installation of a full deceleration lane extending east from the intersection of Green Valley Road and Sophia Parkway and the alternative of a "pocket lane" as previously considered by the Board of Supervisors

E. As required by CEQA to address subparagraphs A-D, above, the County shall update the information otherwise contained in the Negative Declaration.

As stated in the Judgment on the Settlement Agreement, the Court found that: (1) the balance of environmental issues (other than traffic and biology) were severable from those two issue areas; (2) severance of the CEQA analysis will not prejudice complete and full compliance; and (3) evaluation of CEQA issues in the MND (other than traffic and biology) met CEQA requirements.

The environmental issue areas comprising items (1) through (3), above, are: aesthetics, agriculture/forestry resources, air quality, cultural resources, geology/soils, hazards/hazardous materials, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, and utilities/service systems. Those topics are evaluated in Section 3.0.2 in the Draft EIR. Comments received on the Notice of Preparation (see below) identified aesthetics, air quality, lighting, noise, and water quality as topics that should be addressed in the Draft EIR. These topics are evaluated in this Draft EIR in Section 3.0.2.

In November 2014, County staff commenced preparation of the Draft EIR in accordance with the Settlement Agreement. The applicant has developed a revised project design that

incorporates design-related conditions of approval from the prior approval. In addition, the applicant has decided to remove the fast-food restaurant component of the project.

1.4 ENVIRONMENTAL REVIEW PROCESS

NOTICE OF PREPARATION

CEQA requires that prior to preparing an EIR the lead agency must provide public notice of its intention to do so and solicit views on environmental issues for a period of at least 30 days. This is called the Notice of Preparation (NOP).

The NOP for the proposed Green Valley Convenience Center (the currently proposed project) was submitted to the State Clearinghouse for public and agency review for a 30-day review beginning on December 19, 2014, and ending on January 20, 2015. The NOP and related materials were also posted on the County's project-dedicated website. In addition, e-mail notices were sent out to the subscriber lists and all landowners within a 1-mile radius of the site (which included the City of Folsom in Sacramento County), as well as other County commissions/committees and other agencies.

A public scoping meeting presented in an open house-style format was held on January 5, 2015, during the 30-day NOP review period at the El Dorado Hills Fire Department on Wilson Boulevard. The open house included display boards showing the project design, and County staff and the applicant's representatives were available to answer questions. Information about the environmental review process and comment cards for individuals to submit written comments on the scope of the Draft EIR analysis were also provided.

The NOP is included in **Appendix A** of this Draft EIR. Comments received during the NOP review period, including the scoping meeting, are also included in Appendix A. Table A-1 in Appendix A summarizes the comments and where the issues raised in the comments that pertain to environmental issues are addressed in the Draft EIR.

DRAFT EIR

This document constitutes the Draft EIR. The Draft EIR contains a description of the project objectives, a description of the project, description of the environmental setting, identification of environmental impacts, and mitigation measures for impacts found to be significant. Upon completion of the Draft EIR, the County will file the Notice of Completion (NOC) with the Governor's Office of Planning and Research (OPR) State Clearinghouse (SCH) and a Notice of Availability (NOA) with the El Dorado County Clerk to begin the public review period (Public Resources Code Section 21161).

PUBLIC NOTICE/PUBLIC REVIEW

Concurrent with the NOC, the County will provide public notice of the availability of the Draft EIR for public review and invite comment from the general public, agencies, organizations, and other interested parties. The public review and comment period is 45 days, beginning October 6, 2015 and ending November 19, 2015.

All comments or questions regarding the Draft EIR should be addressed to:

Jennifer Franich, Associate Planner
El Dorado County Development Services Department Planning Division
2850 Fairlane Court
Placerville, CA 95667
(530) 621-6591
(530) 642-0508 (fax)
Jennifer.Franich@edcgov.us

Written comments on the Draft EIR can be sent by regular mail to the address, by email, or fax.

RESPONSE TO COMMENTS/FINAL EIR

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to comments received during the public review period.

CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

The Board of Supervisors will review and consider the Final EIR and may certify the Final EIR if it finds that the EIR is adequate and complete. The rule of adequacy generally holds that the EIR can be certified if it shows a good faith effort at full disclosure of environmental information and provides sufficient analysis to allow decisions to be made regarding the project in contemplation of its environmental consequences. Note that certification of the EIR does not automatically result in project approval.

Upon review and consideration of the Final EIR, the Board of Supervisor may take action to approve, revise, or reject the proposed project. Any decision to approve the project will be accompanied by written findings in accordance with CEQA Guidelines Section 15091. A Mitigation Monitoring and Reporting Program (MMRP), as described below, would also be adopted for mitigation measures that have been incorporated into or imposed on the project to reduce or avoid significant effects on the environment. The MMRP will be designed to ensure that these measures are carried out during project implementation.

MITIGATION MONITORING AND REPORTING PROGRAM

CEQA Section 21081.6(a) requires lead agencies to adopt a Mitigation Monitoring and Reporting Program to describe measures that have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The specific reporting or monitoring program required by CEQA is not required to be included in the EIR; however, it will be presented to the Board of Supervisor for adoption. Throughout the EIR, mitigation measures have been clearly identified and presented in language that will facilitate establishment of an MMRP. Any mitigation measures adopted by the County as conditions for approval of the project will be included in an MMRP to verify compliance.

1.5 ORGANIZATION AND SCOPE OF EIR

This Draft EIR was prepared in conformance with the CEQA Guidelines (Sections 15120 through 15132) and includes the following chapters:

- **Executive Summary** describes the purpose of the Draft EIR and includes a summary of project characteristics, project alternatives summary, and summary of impacts and mitigation measures.

- **Chapter 1.0: Introduction** describes the purpose of the Draft EIR and provides an overview of the environmental review process.

- **Chapter 2.0: Project Description** describes the project location, existing conditions, project objectives and characteristics, and regulatory requirements, including necessary permits and approvals.

- **Chapter 3.0**: **Environmental Setting and Analysis** evaluates the environmental impacts associated with implementation of the proposed project. The analysis provides an overview of the environmental setting for issue areas being evaluated, an explanation of significance thresholds used to determine the level of potential impacts, an assessment of the project-level and cumulative impacts of the proposed project, and a description of the mitigation measures that would reduce or eliminate those impacts.

- **Chapter 4.0**: **Alternatives** describes alternatives to the proposed project, including a No Project alternative (required under CEQA), site access alternatives required by the Settlement Agreement, and other alternatives.

- **Chapter 5.0: Other CEQA Topics** includes a brief analysis of other topics required under CEQA Guidelines Section 15126: significant unavoidable impacts and growth inducement. It also evaluates energy conservation in accordance with Appendix F of the CEQA Guidelines.

- **Chapter 6.0: References** lists the documents consulted in the preparation of this document.

- **Chapter 7.0: Report Preparers** lists those involved with the preparation of the Draft EIR and those agencies and persons consulted in the preparation of the document.

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2.0 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

The proposed project is the construction and operation of an ARCO AM/PM gasoline station with a convenience market and self-service car wash.

2.2 PROJECT LOCATION

The project site is at the southeast corner of Green Valley Road and Sophia Parkway in the north El Dorado Hills area in El Dorado County **(Figure 2.0-1a** and **Figure 2.0-1b)**. The triangular-shaped project site is an undeveloped 2.12-acre parcel (APN 124-301-46) in Sections 21 and 28, Township 8 North, Range 8 East. The El Dorado County General Plan land use designation for the site is Commercial (C), and it is zoned Commercial-Planned Development (C-PD).

The site is approximately 10 feet below the adjacent roadway grade and is covered with nonnative grasses, shrubs, and a few trees. A seasonal stream bisects the southern portion of the parcel, flows west through culverts under Sophia Parkway, and continues into Mormon Island Wetland Preserve. The northeast corner of the site includes an asphalt drive apron and an unsurfaced road. Views of the project site are provided in Photo 2.0-1 and Photo 2.0-2. Additional views of the project site are shown in Photos 3.2-1 through 3.2-4 in Section 3.2, Biological Resources.

The Folsom Lake State Recreation Area (SRA) is on the north side of Green Valley Road. Trail access to the SRA and Brown's Ravine Marina is on the north side at the Green Valley Road/Sophia Parkway intersection. The Mormon Island Auxiliary Dam, one of the dams impounding Folsom Lake, is also across Green Valley Road to the northwest. Surrounding land uses consist of the two roadways on the north and west, a commercial recreational vehicle (RV)/boat storage business on the east, and commercial-zoned vacant land south of the storage yard. Two medium-density residential lots abut a portion of the property, and high-density residential lots are adjacent at the southeast corner. The closest residential structure is approximately 550 feet south of the southernmost point of the developable portion of the site. There is a vacant parcel zoned for commercial use on the west side of Sophia Parkway. Further south on Sophia Parkway are residential subdivisions on the east and west sides of Sophia Parkway.

2.3 PROJECT OBJECTIVES

The objectives of the proposed project are to:

- Expand ARCO's presence in El Dorado County, specifically in the community of El Dorado Hills, and operate a convenience center with fueling stations, car wash, and shopping in a location where traffic volumes and customer patronage support a profitable commercial business that is a source of local tax revenue and local employment opportunities.

- Operate a 24-hour, 7-days-a-week gas station, mini-mart, and car wash located on Green Valley Road in the El Dorado Hills area in close proximity to residential and recreational uses to provide local residents, daytime commuters, alternate shift workers, and travelers with a price-competitive option for fueling and convenience shopping.

- Provide direct access to convenience service that is easy to see, allows patrons to maneuver to and through the fueling positions and to access other services without needing to wait or reroute excessively, and to safely and quickly reenter traffic in their direction of travel to their destination.

- Provide the local community in the northern El Dorado Hills area with close-by and convenient access to an automated car wash that uses a recycled water system to help reduce the demand on potable water and discharges only treated effluent to the sewer system.

- Site and design a convenience center in a manner that avoids and/or minimizes impacts on sensitive biological habitats, avoids oak woodlands, and is of a scale and architectural style that blends in with its surroundings.

- Use vacant, underutilized land and available infrastructure where existing utility services are already available and where current adopted zoning allows for such uses.

2.4 PROJECT DESCRIPTION

PROJECT FEATURES

The proposed project would develop an ARCO-branded convenience center occupying approximately 1.3 acres of the 2.12-acre site. It would include the following:

- 4,872-square-foot open-sided canopy with eight self-service fuel pumps (16 fueling positions and two payment island cashiers) and solar panels on the canopy

- Two underground fuel storage tanks

- 3,058-square-foot convenience store

- 1,804-square-foot single-bay self-service car wash, with doors at the entrance and exit of the car wash to reduce exterior noise levels to levels that meet County standards

- Air/water unit and two vacuums

- 18-foot-tall monument site identification sign (67 square feet surface area)

- On-site parking spaces for vehicles (18 spaces) and bicycles (4 spaces)

- Trash enclosure

- On-site stormwater runoff collection system

- On-site lighting, consisting of wall lights, canopy lights, and 12-foot-tall pole lights with full cutoff fixtures

- Landscaping, hardscaping, and pavement

Figure 2.0-1a

Regional Location

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Figure 2.0-1b
Project Site

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Photo 2.0-1. View of project site and Green Valley Road/Sophia Parkway intersection looking south from the trail system in the Folsom Lake SRA east of Mormon Island Auxiliary Dam.

Photo 2.0-2. View looking west from the east side of the site. The area in view contains most of the footprint area of the proposed project. Sophia Parkway is in the background, and Green Valley Road is on the far right.

The overall site plan is shown in **Figure 2.0-2**, and details of these features are described below. **Figure 2.0-3** provides an illustrative view across the site from the west, from the sidewalk along Green Valley Road at the Sophia Parkway intersection, to the rear of the building.

PROJECT DESIGN

The fuel canopy would be a steel, flat-roof structure open on all four sides. The roof would be supported by eight steel interior columns aligned with the fuel pumps. The canopy façade would be aluminum composite panel with ARCO signage. Solar panels facing south would be installed on the canopy.

The convenience store would have a flat roof with a parapet surround averaging 4 feet above the roof plane and would be accented with a standing-seam metal-pitched roof façade along the sides facing Green Valley Road and Sophia Parkway. The Green Valley Road side would also be accented with two rough-sawn wood supported dormers over the entrances. The exterior walls would be cement stucco painted in earth tones with colored accents and cement stone corner towers and wainscot. **Figure 2.0-4** and **Figure 2.0-5** illustrate the front, side, and rear architecture and exterior finishes.

The car wash would be a prefabricated unit made in Italy with a vision glass wall facing the parking lot, painted cement stucco along the eastern property line, and cement stone accents to match the adjacent building. The roof would be an acrylic barrel-vault skylight. The surround trim would be an aluminum composite panel to match the canopy graphics. Doors would be placed on the entrance and exit to reduce noise levels outside the car wash. Exterior features of the car wash are shown in **Figure 2.0-6**.

The trash enclosure, which would be on the west side of the site (see Figure 2.0-2), would be constructed of concrete masonry units painted to match the adjacent building and would have a steel gate painted to match the enclosure.

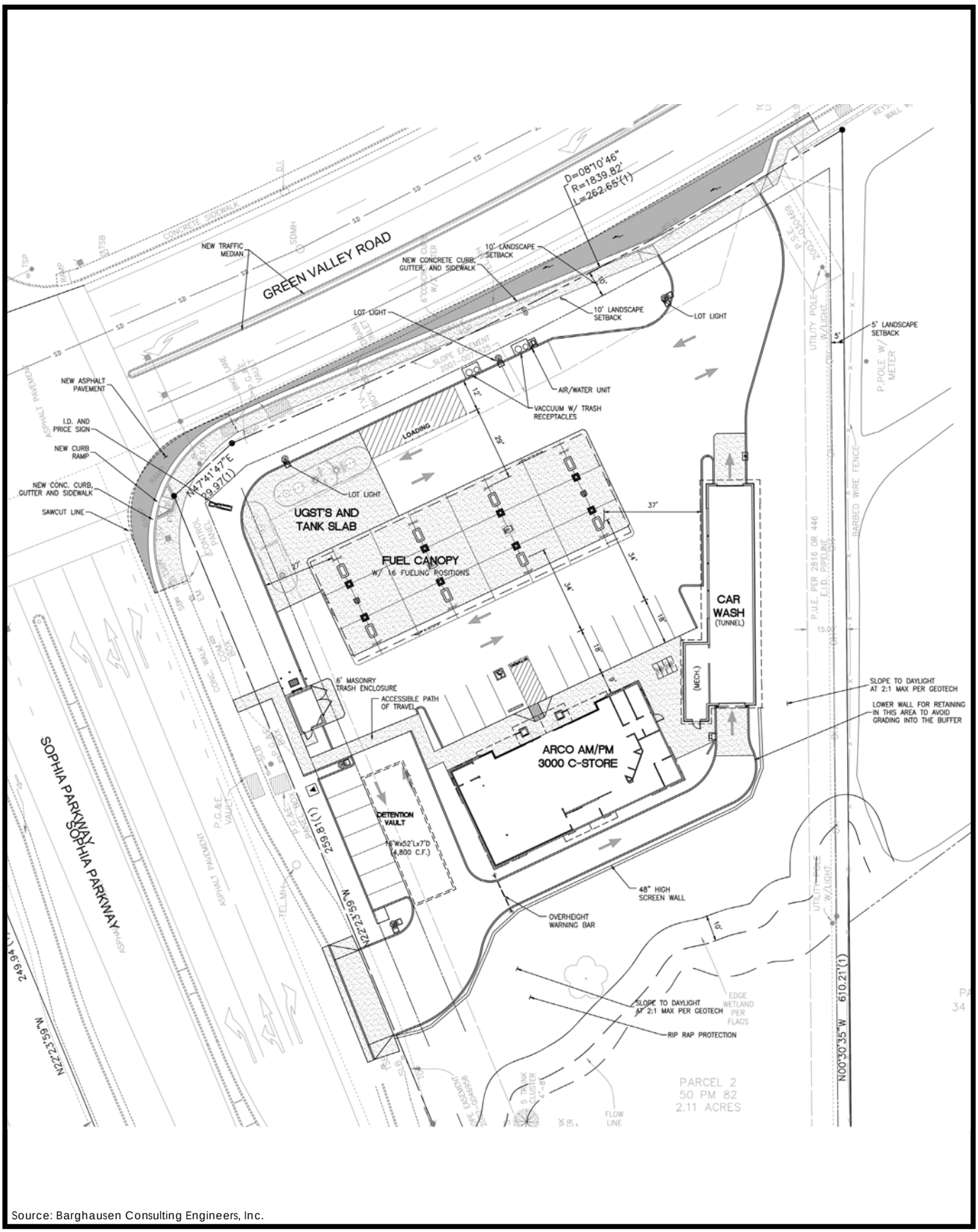
There would be a 48-inch-high screen/retaining wall along the southern end of the development (**Figure 2.0-7**), which is anticipated to be constructed of steel "H" piles drilled into the underlying bedrock. The steel piles will be in-filled with timber lagging stained in an earth tone. The screen/retaining wall along the eastern boundary would be constructed of stacked cement modular units stained in an earth tone.

SITE ACCESS AND RELATED IMPROVEMENTS

The project proposes two new access points, one each on Green Valley Road and Sophia Parkway (Figure 2.0-2). These encroachments would be right-in and right-out only. The driveway access on Green Valley Road would be at the east end of the project, where a 135-foot-long deceleration taper would lead to the driveway. The driveway access from Sophia Parkway would be at the south end of the convenience center. The proposed project also includes installation of a raised median on Green Valley Road starting at the east side of the Sophia Parkway intersection and extending east approximately 350 feet and past the driveway access on Green Valley Road. The purpose of the raised median would be to prevent vehicles from turning left onto Green Valley Road from the access driveway on Green Valley Road.

The curb at Green Valley Road/Sophia Parkway would be modified to conform to County standards. This modification would facilitate U-turns from westbound Green Valley Road to access the driveway on Green Valley Road. The modification would include U-turn signs.

T:_CS\Work\El Dorado, County of\Green Valley Road Gas Station\Figures



Source: Barghausen Consulting Engineers, Inc.

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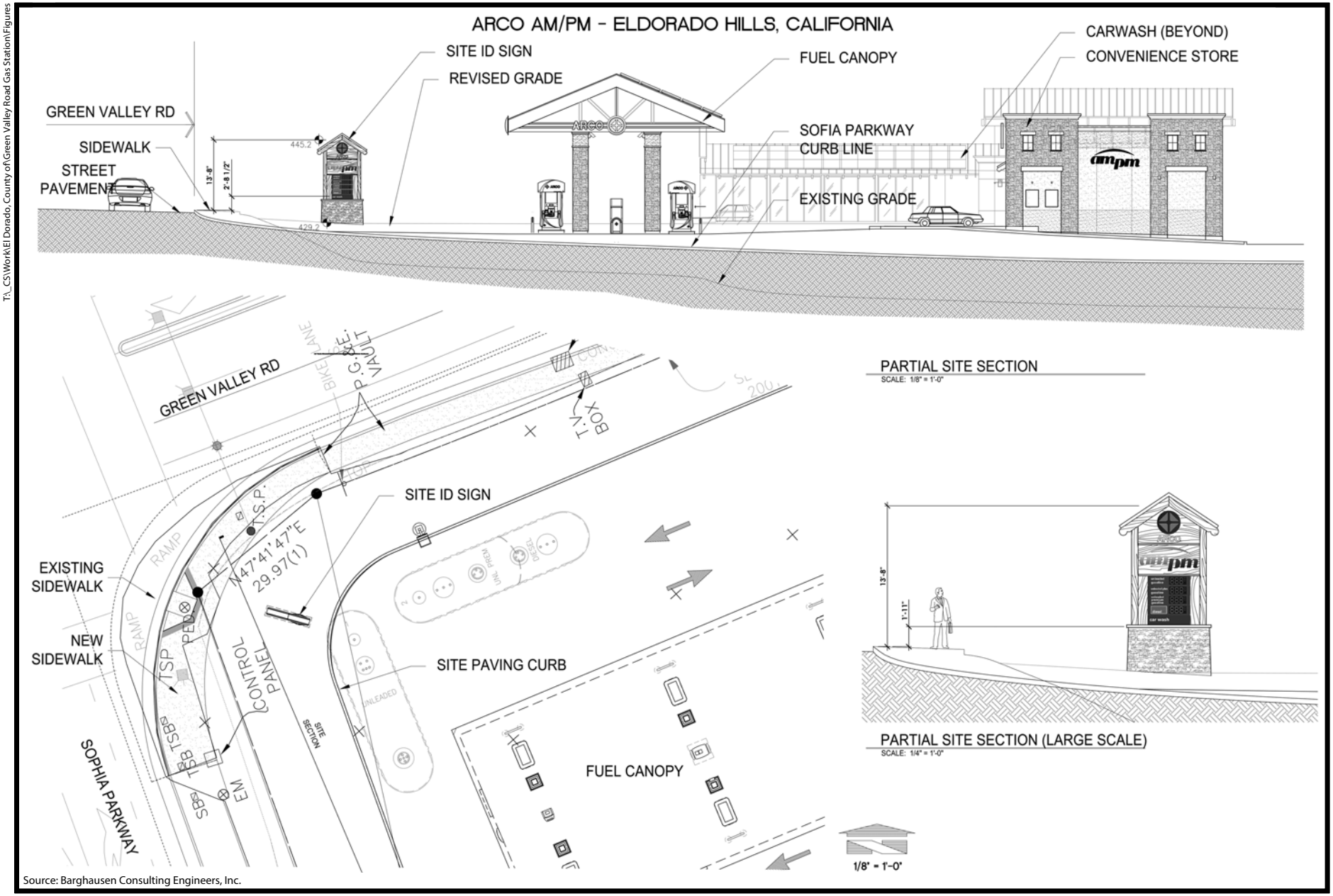
Figure 2.0-2
Site Plan

Michael Baker
INTERNATIONAL

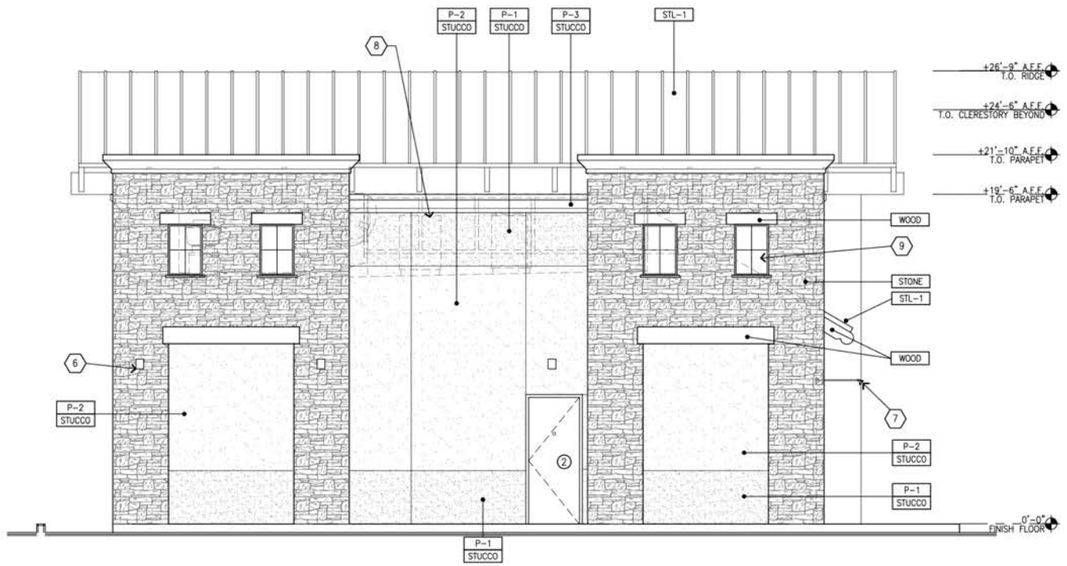
T:_CS\Work\El Dorado, County of\Green Valley Road Gas Station\Figures



Source: Barghausen Consulting Engineers, Inc.

Figure 2.0-3
Project Features

Michael Baker INTERNATIONAL



02 — **LEFT ELEVATION**
SCALE: 1/4"=1'-0"

GENERAL NOTES

A. REVEAL LOCATIONS IN FINISH SYSTEM SHOWN ARE TO ALIGN AS CLOSELY AS POSSIBLE TO ELEVATIONS.

KEYED NOTES

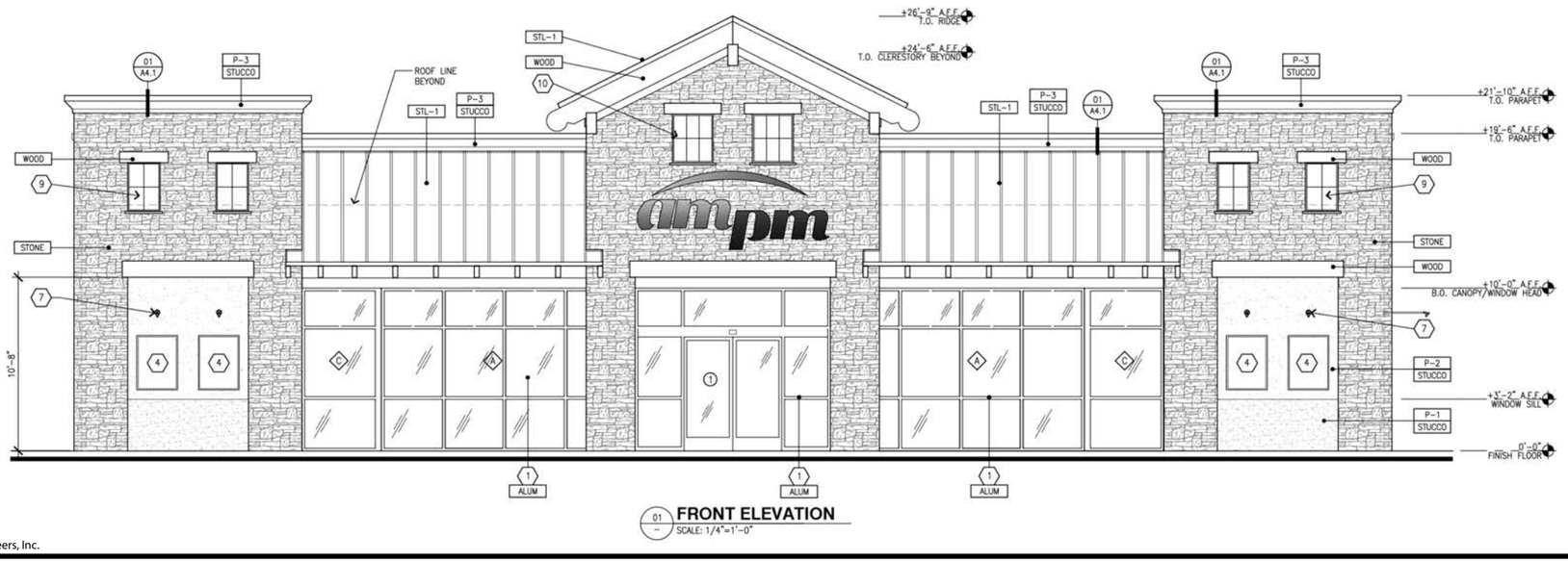
1. ALUMINUM ENTRANCE AND STOREFRONT SYSTEM, REFER TO SHEET A5.3 & SPECIFICATION.
2. NOT USED
3. OVERFLOW DRAIN
4. WALL POSTER
5. INTERNALLY ILLUMINATED SURFACE MOUNTED WALL SIGN
6. WALL MOUNTED LED FIXTURE
7. WALL MOUNTED SIGN LIGHTING
8. ROOFTOP EQUIPMENT BEYOND
9. 24X36 WINDOW W/ BLACKED OUT PLYWOOD BACKING
10. 30X36 WINDOW

COLOR LEGEND

P-1	DUNN EDWARDS, DE6130, "WOODED ACRE"
P-2	DUNN EDWARDS DE6128, "SAND DUNE"
P-3	DUNN EDWARDS DEC756, "WEATHERED BROWN", HIGH GLOSS
P-4	CABOT SEMI-TRANSPARENT STAIN, "MISSION BROWN"

MATERIAL LEGEND

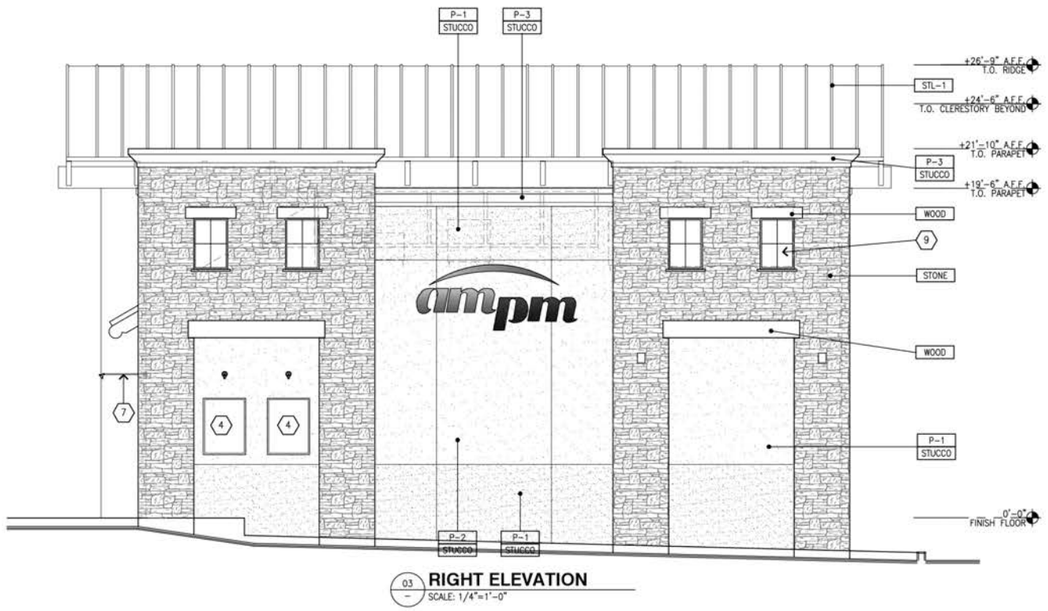
STUCCO	7/8" CEMENT PLASTER, INSTALLED PER MFG. SPECIFICATIONS; TEXTURE: FINE SAND FINISH
S-FLEX	STUC-O-FLEX ELASTOMERIC ACRYLIC FINISH OVER CEMENT PLASTER;, INSTALLED PER MFG. SPECIFICATIONS; TEXTURE: FINE SAND FINISH
ALUM	CLEAR ANODIZED ALUMINUM
STL-1	STANDING SEAM METAL ROOF MFG: TAYLOR MTL PRODUCTS, PRODUCT: VERSA SPAN COLOR: MEDIUM BRONZE
STONE	MANUFACTURED STONE VENEER MFG: ELDORADO STONE, PRODUCT: SHADOW ROCK COLOR: CHESAPEAKE
WOOD	ROUGH-SAWN DIMENSIONAL WOOD TRIM



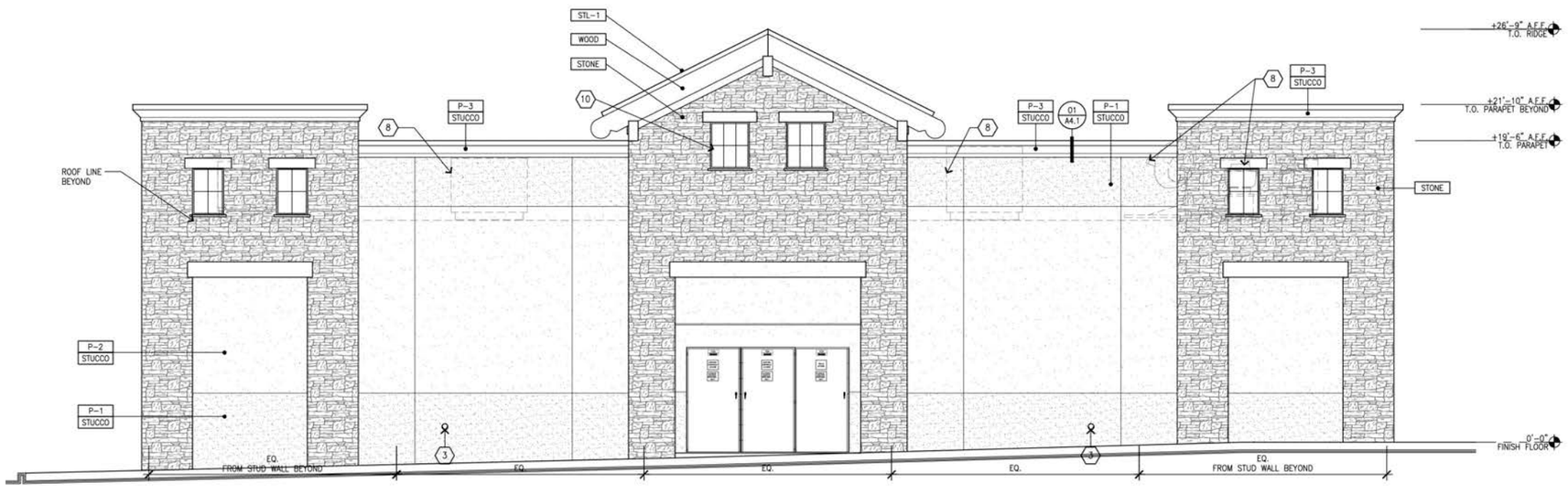
01 — **FRONT ELEVATION**
SCALE: 1/4"=1'-0"

Source: Barghausen Consulting Engineers, Inc.

Figure 2.0-4
Front and Left Elevations



03 – **RIGHT ELEVATION**
SCALE: 1/4"=1'-0"



04 – **REAR ELEVATION**
SCALE: 1/4"=1'-0"

GENERAL NOTES

A. REVEAL LOCATIONS IN FINISH SYSTEM SHOWN ARE TO ALIGN AS CLOSELY AS POSSIBLE TO ELEVATIONS.

KEYED NOTES

1. ALUMINUM ENTRANCE AND STOREFRONT SYSTEM, REFER TO SHEET A5.3 & SPECIFICATION.
2. NOT USED
3. OVERFLOW DRAIN
4. WALL POSTER
5. INTERNALLY ILLUMINATED SURFACE MOUNTED WALL SIGN
6. WALL MOUNTED LED FIXTURE
7. WALL MOUNTED SIGN LIGHTING
8. ROOFTOP EQUIPMENT BEYOND
9. 24X36 WINDOW W/ BLACKED OUT PLYWOOD BACKING
10. 30X36 WINDOW

COLOR LEGEND

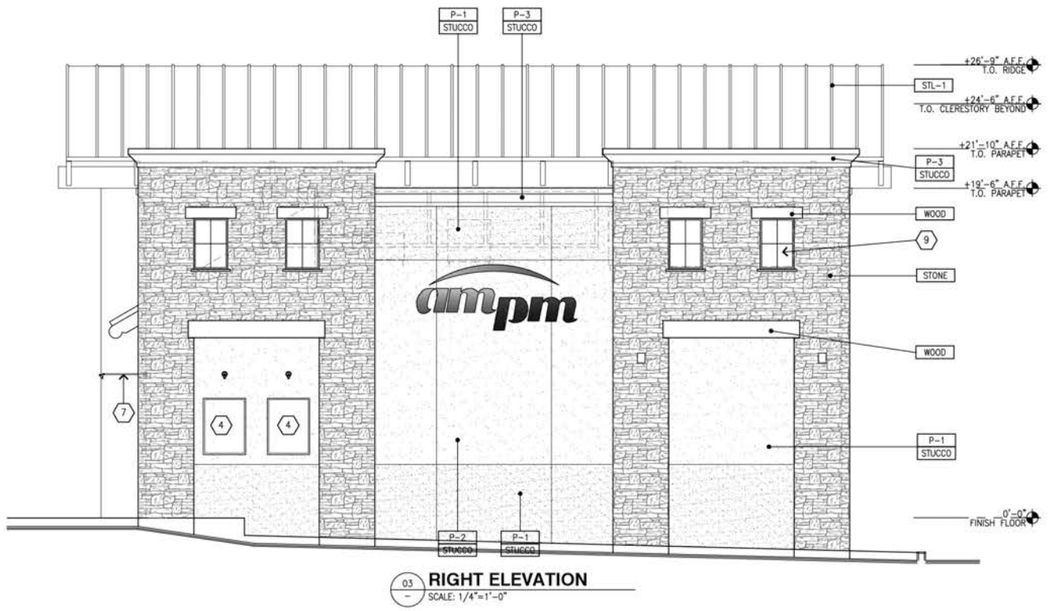
P-1	DUNN EDWARDS, DE6130, "WOODED ACRE"
P-2	DUNN EDWARDS DE6128, "SAND DUNE"
P-3	DUNN EDWARDS DEC756, "WEATHERED BROWN", HIGH GLOSS
P-4	CABOT SEMI-TRANSPARENT STAIN, "MISSION BROWN"

MATERIAL LEGEND

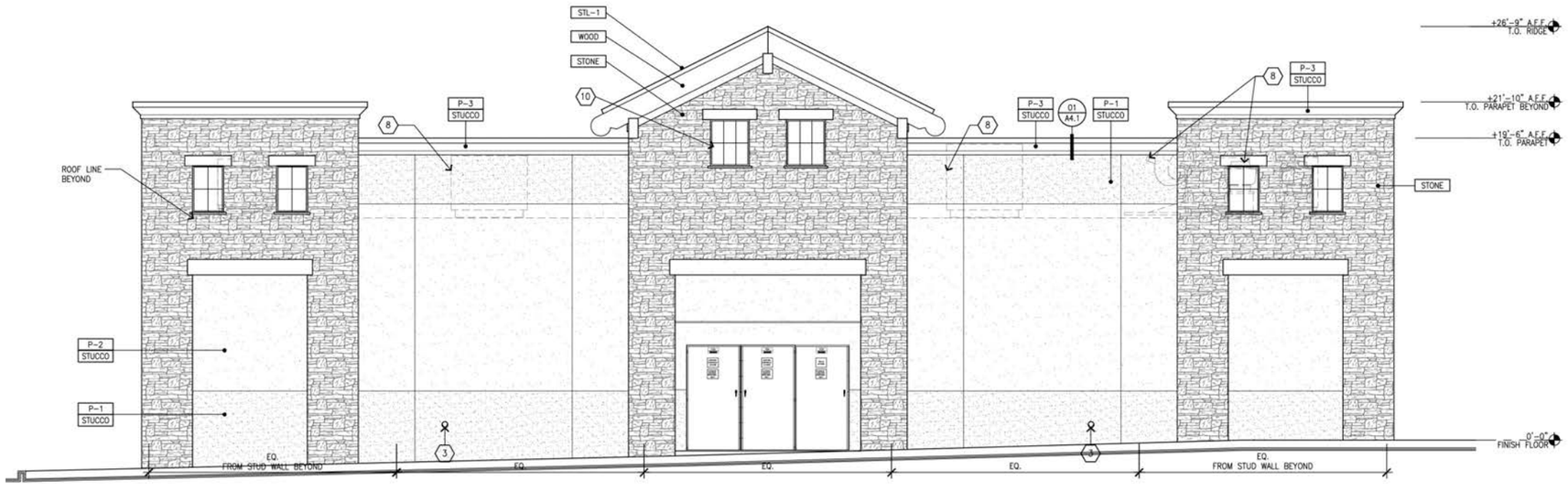
STUCCO	7/8" CEMENT PLASTER, INSTALLED PER MFG. SPECIFICATIONS; TEXTURE: FINE SAND FINISH
S-FLEX	STUC-O-FLEX ELASTOMERIC ACRYLIC FINISH OVER CEMENT PLASTER;, INSTALLED PER MFG. SPECIFICATIONS; TEXTURE: FINE SAND FINISH
ALUM	CLEAR ANODIZED ALUMINUM
STL-1	STANDING SEAM METAL ROOF MFG: TAYLOR MTL PRODUCTS, PRODUCT: VERSA SPAN COLOR: MEDIUM BRONZE
STONE	MANUFACTURED STONE VENEER MFG: ELDORADO STONE,, PRODUCT: SHADOW ROCK COLOR: CHESAPEAKE
WOOD	ROUGH-SAWN DIMENSIONAL WOOD TRIM

Source: Barghausen Consulting Engineers, Inc.

Figure 2.0-5
Right and Rear Elevations



03 **RIGHT ELEVATION**
SCALE: 1/4"=1'-0"



04 **REAR ELEVATION**
SCALE: 1/4"=1'-0"

GENERAL NOTES

A. REVEAL LOCATIONS IN FINISH SYSTEM SHOWN ARE TO ALIGN AS CLOSELY AS POSSIBLE TO ELEVATIONS.

KEYED NOTES

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9. 24X36 WINDOW W/ BLACKED OUT PLYWOOD BACKING
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COLOR LEGEND

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P-2	DUNN EDWARDS DE6128, "SAND DUNE"
P-3	DUNN EDWARDS DEC756, "WEATHERED BROWN", HIGH GLOSS
P-4	CABOT SEMI-TRANSPARENT STAIN, "MISSION BROWN"

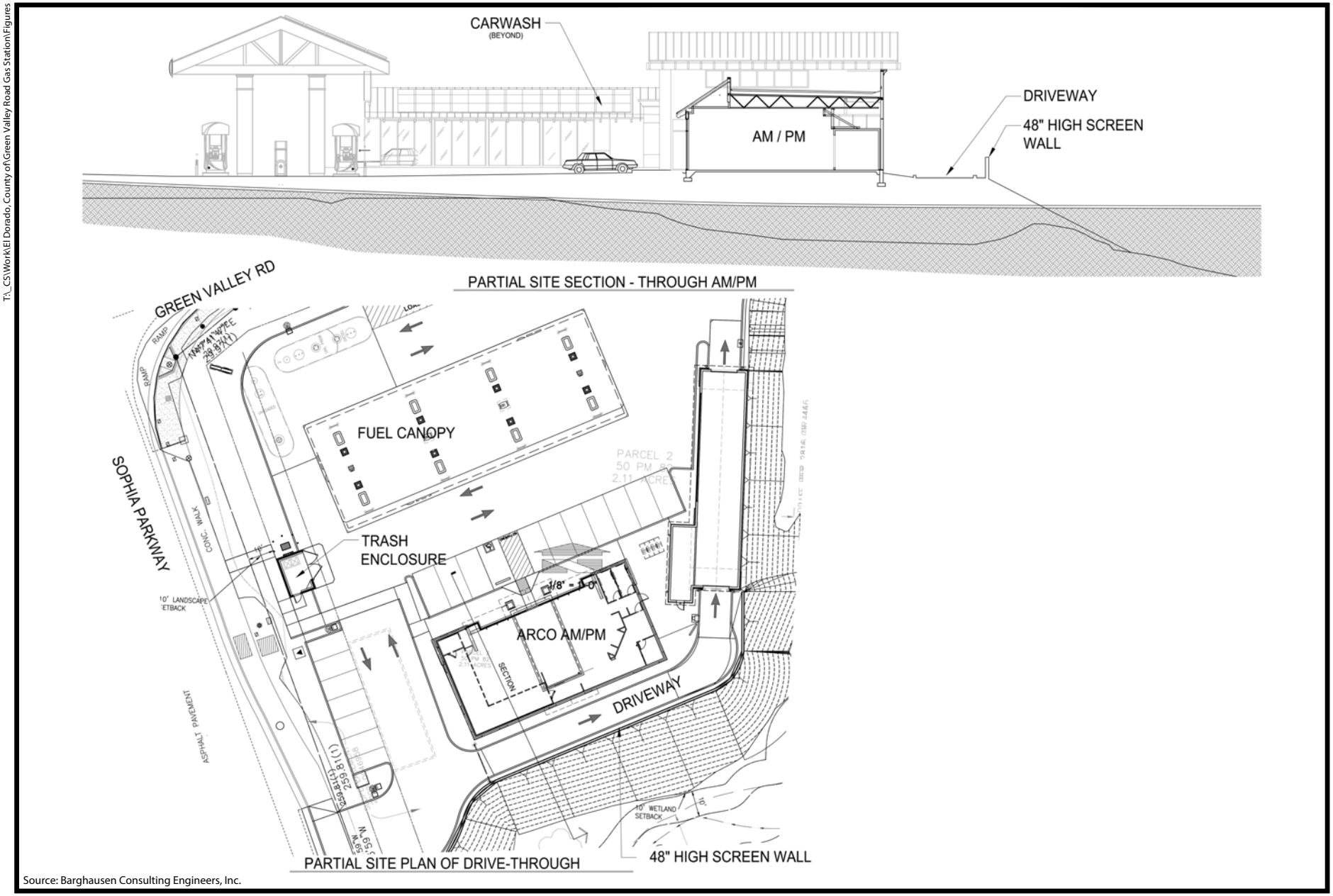
MATERIAL LEGEND

STUCCO	7/8" CEMENT PLASTER, INSTALLED PER MFG. SPECIFICATIONS; TEXTURE: FINE SAND FINISH
S-FLEX	STUC-O-FLEX ELASTOMERIC ACRYLIC FINISH OVER CEMENT PLASTER;, INSTALLED PER MFG. SPECIFICATIONS; TEXTURE: FINE SAND FINISH
ALUM	CLEAR ANODIZED ALUMINUM
STL-1	STANDING SEAM METAL ROOF MFG: TAYLOR MTL PRODUCTS, PRODUCT: VERSA SPAN COLOR: MEDIUM BRONZE
STONE	MANUFACTURED STONE VENEER MFG: ELDORADO STONE,, PRODUCT: SHADOW ROCK COLOR: CHESAPEAKE
WOOD	ROUGH-SAWN DIMENSIONAL WOOD TRIM

Source: Barghausen Consulting Engineers, Inc.

Figure 2.0-6
Car Wash Exterior Elevations

T:_CS\Work\El Dorado, County of\Green Valley Road Gas Station\Figures



Source: Barghausen Consulting Engineers, Inc.

Figure 2.0-7

Screen/Retaining Wall and South/East Slope Location

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This Draft EIR includes an analysis of other access alternatives. These alternatives are described and evaluated in Section 4.0, Alternatives. The alternatives evaluate a longer deceleration taper along Green Valley Road and a full deceleration lane to Amy's Lane, with driveway access to the site from Amy's Lane.

GRADING AND LANDSCAPING

The area containing the structures and pavement would be raised to transition from the existing grade at Green Valley Road/Sophia Parkway by importing fill to create a flat building pad. Approximately 12,000 cubic yards of fill would be required. It is anticipated the fill would be obtained from a soil stockpile on a vacant parcel on the west side of Sophia Parkway or from construction work northwest of the site on Green Valley Road. Removal of fill at either location would require its own grading permit in addition to the grading permit required to grade the project site to construct the project.

The County Code requires the use of landscaping to buffer commercial parking areas from adjoining streets and as screening from residential land uses. The proposed project would include landscaping buffers along the perimeters of parking areas and property boundaries. The majority of the proposed plants are listed in the El Dorado County Drought Resistant Plant List. Valley oaks are proposed to be the street trees along Sophia Parkway and Green Valley Road.

There would be a short screen/retaining wall on the south side of the car wash access driveway (see Figure 2.0-7). A lattice would be installed on top of the screen wall, and vines would be planted so that they climb the wall, which would help provide a visual buffer. South of the screen wall, the site would be graded and sloped toward the creek. The graded slope below the screen wall would be planted with trees (24-inch boxes or equivalent in size) and shrubs. Erosion control vegetation would be planted along the bottom half of the slope. The graded slope would be approximately 10 feet from the channel at the nearest point. The screen wall would be approximately 30 feet from the channel at its nearest point. The proposed project would not result in any modification or fill of the channel. Erosion control vegetation would also be extended around the east side of the site.

The proposed landscape plan is shown in **Figure 2.0-8**. The landscape plan includes cedar and native oaks on the south and east side to buffer views into the project from the east and south sides. Willow trees, native to the riparian area, would also be planted along the southern boundary. Other plantings would include shrubs and groundcovers. Most of the plantings would be very low- and low-water use, drought-tolerant species. The applicant must submit the landscape plan to the County, and the plan must be approved by the County prior to issuance of a building permit. The applicant must provide documentation how it will comply with the County's Model Water Efficient Landscape Ordinance, and an irrigation audit report or survey approved by the El Dorado Irrigation District will also be required. The applicant will be responsible for maintaining the landscaping in accordance with the approved final landscaping plan in perpetuity.

The applicant is required to submit a site improvement/grading plan prepared by a professional civil engineer to the County Transportation Division for review and approval. The plan must demonstrate conformance with the County of El Dorado "Design and Improvement Standards Manual," the "Grading, Erosion and Sediment Control Ordinance," the "Drainage Manual," the "Off-Street Parking and Loading Ordinance," and the State of California Handicapped Accessibility Standards. The proposed grading and storm drainage plan is shown in **Figure 2.0-9**. The improvements and grading must be completed to the satisfaction of the Transportation Division prior to occupancy clearance.

UTILITIES

Water

Water service to the project site would be provided by El Dorado Irrigation District (EID). There is an 8-inch water line in Sophia Parkway and a 6-inch water line along the eastern property line of the parcel. To receive service, the applicant would construct a water line extension connecting to both water lines. No off-site improvements that would require construction outside the immediate project site would be required. Prior to issuing a building permit, the project applicant will need to demonstrate to the satisfaction of the El Dorado Hills Fire Department (EDHFD) that the potable water system serving the project would provide a minimum fire flow of 1,500 gallons per minute with a minimum residual pressure of 20 psi for a two-hour duration. Fire hydrants would also be installed at locations identified by the EDHFD.

Sewer

The EID would provide wastewater service to the project site. There is a sewer lift station (Promontory No.3) located approximately 200 feet south of the property. There are two 6-inch gravity sewer lines located in Sophia Parkway, near the lift station. The applicant would construct an extension to receive service from either of these lines.

A sewer line along the edge of Sophia Parkway would connect to an existing manhole near the south end of the project parcel. The sewer line would be installed in the engineered road prism, over the top of the culvert that conveys the channel under Sophia Parkway. The road prism above the culvert is covered with existing rip-rap. The sewer line would be underground, and post-construction conditions around the sewer line would be the same as existing.

Storm Drainage

Stormwater runoff from the developed portion of the site would be collected in a series of at-grade concrete swales, catch basins, and a pipe conveyance system that would convey flows into a culvert that discharges into the existing seasonal creek that bisects the site. The culvert would have a concrete headwall and rip-rap apron. The rip-rap apron would be approximately 24 feet from the channel at the nearest point. Figure 2.0-9 shows the location of the storm drain outfall and existing culverts relative to the seasonal stream.

State regulations and County standards require source control and treatment controls to be included in project design to reduce to the maximum extent practicable pollutants in stormwater runoff. Before the County issues a grading permit for the project, it will require the applicant to provide a detailed site plan identifying where each of the specific stormwater quality best management practices (BMPs) will be located, along with hydrologic and hydraulic calculations showing how stormwater would be managed in accordance with the Phase II Small MS4 General Permit (Order No. 2013-0001-DWQ) Section E.12 (Post-Construction Storm Water Management Program).

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	Very Low	Low	Medium	High
	15	Lagerstroemia indica `Watermelon Red`	Watermelon Red Crape Myrtle	24"box			X	
	1	Quercus douglasii	Blue Oak	24"box	X	X		
	10	Quercus lobata	Valley Oak	24"box		X		

RE-VEGETATION TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	Very Low	Low	Medium	High
	6	Populus fremontii	Fremont Cottonwood	Tree Pot 4			X	
	3	Quercus lobata	Valley Oak	Tree Pot 4		X		
	6	Salix exigua	Coyote Willow	D-pot 40			X	
	3	Salix goodingii	Willow	Tree Pot 4				X
	16	Salix laevigata	Red Willow	5 gal				X

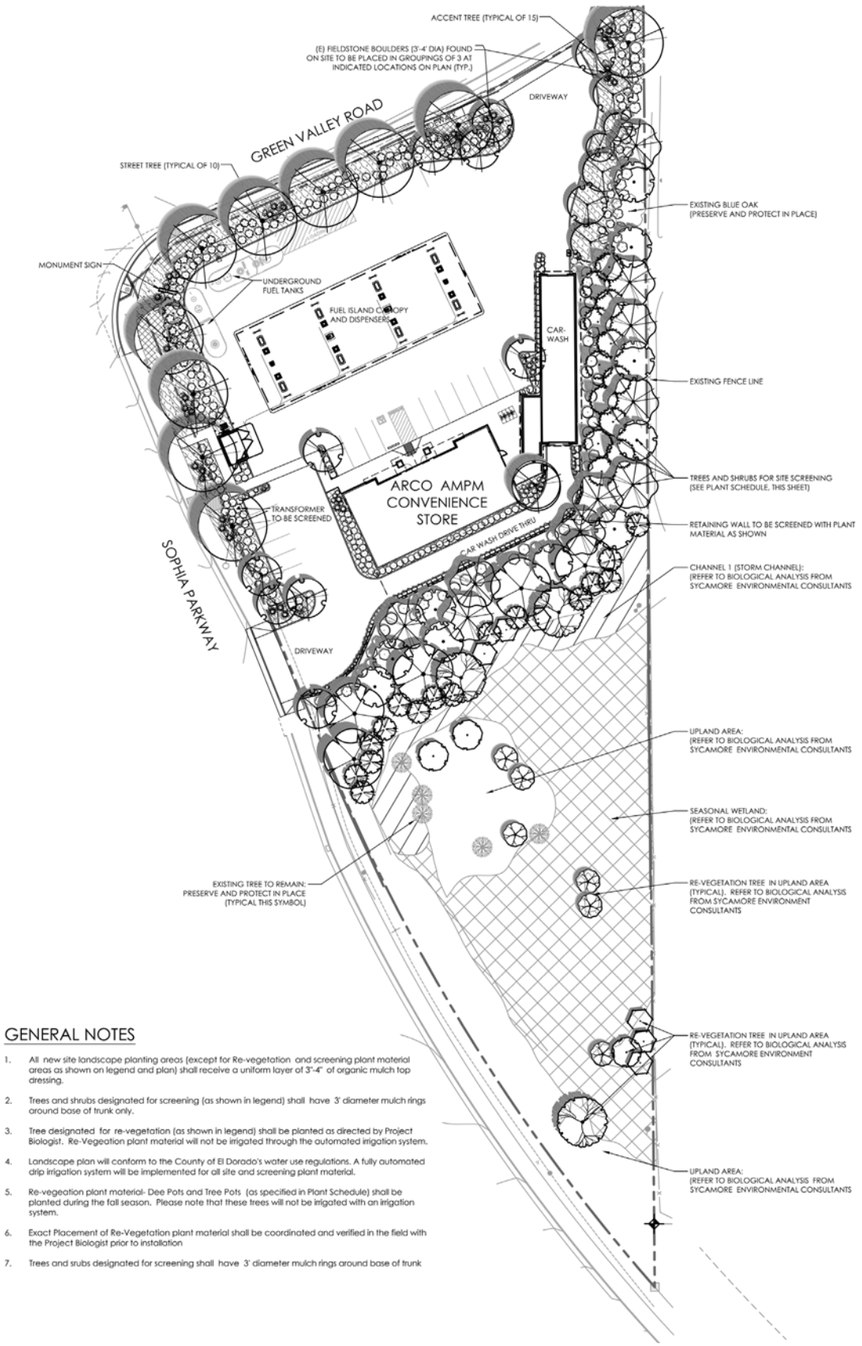
SCREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	Very Low	Low	Medium	High
	12	Calocedrus decurrens	Incense Cedar	15 gal		X		
	2	Cercis occidentalis	Western Redbud Multi-trunk	15 gal		X		
	10	Quercus douglasii	Blue Oak	15 gal	X	X		
	5	Quercus lobata	Valley Oak	15 gal		X		
	10	Quercus wislizenii	Interior Live Oak	15 gal		X		

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	Very Low	Low	Medium	High
	69	Carissa macrocarpa	Natal Plum	5 gal		X		
	83	Cistus x hybridus	White Rockrose	5 gal				
	3	Cotinus coggygria `Royal Purple`	Royal Purple Smoke Tree	15 gal		X		
	76	Dietes iridioides	Fortnight Lily	5 gal		X		
	73	Escallonia x `Newport Dwarf`	Newport Dwarf Escallonia	5 gal			X	
	48	Grevillea x `Noellii`	Grevillea	5 gal		X		
	25	Phlomis fruticosa	Jerusalem Sage	5 gal		X	X	
	44	Phormium x `Allison Blackman`	New Zealand Flax	5 gal		X		

SCREEN SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	Very Low	Low	Medium	High
	26	Ceanothus x `Sierra Blue`	Sierra Blue Ceanothus	5 gal	X	X		
	22	Heteromeles arbutifolia	Toyon	5 gal		X		
	33	Rhamnus californica	California Coffee Berry	5 gal	X	X		

VINE/ESPALIER	QTY	BOTANICAL NAME	COMMON NAME	SIZE	Very Low	Low	Medium	High
	2	Campsis radicans	Trumpet Creeper	5 gal		X		

GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	Very Low	Low	Medium	High
	327	Arctostaphylos uva-ursi	Kinnikinnick	1 gal	42" o.c.	X	X		
	204	Helictotrichon sempervirens	Blue Oat Grass	1 gal	30" o.c.		X		
	131	Rosa x `Red Drift`	Drift Rose	1 gal	30" o.c.			X	
	179	Rosmarinus officinalis `Huntington Carpet`	Huntington Carpet Rosemary	1 gal	42" o.c.		X		



GENERAL NOTES

1. All new site landscape planting areas (except for Re-vegetation and screening plant material areas as shown on legend and plan) shall receive a uniform layer of 3"-4" of organic mulch top dressing.
2. Trees and shrubs designated for screening (as shown in legend) shall have 3' diameter mulch rings around base of trunk only.
3. Tree designated for re-vegetation (as shown in legend) shall be planted as directed by Project Biologist. Re-Vegeation plant material will not be irrigated through the automated irrigation system.
4. Landscape plan will conform to the County of El Dorado's water use regulations. A fully automated drip irrigation system will be implemented for all site and screening plant material.
5. Re-vegeation plant material- Dee Pots and Tree Pots (as specified in Plant Schedule) shall be planted during the fall season. Please note that these trees will not be irrigated with an irrigation system.
6. Exact Placement of Re-Vegetation plant material shall be coordinated and verified in the field with the Project Biologist prior to installation
7. Trees and srubs designated for screening shall have 3' diameter mulch rings around base of trunk

Source: Barghausen Consulting Engineers, Inc.

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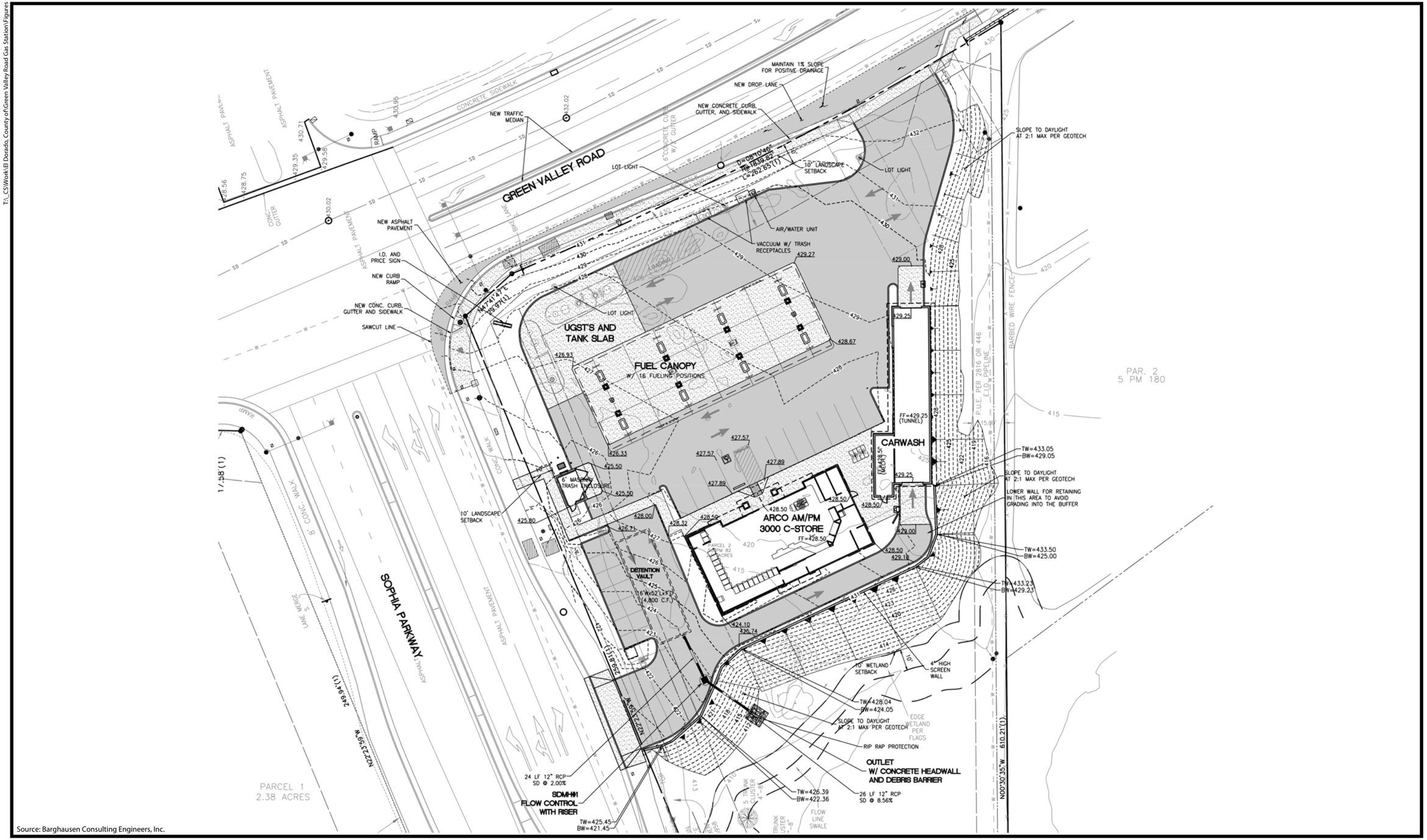
Figure 2.0-8
Landscape Plan

Michael Baker INTERNATIONAL

T:_CS\Work\El Dorado, County of\Green Valley Road Gas Station\Figures



Source: Barghausen Consulting Engineers, Inc.

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Figure 2.0-9
Grading and Storm Drainage Plan

Michael Baker INTERNATIONAL

The project design includes several BMPs to prevent pollutants from contacting stormwater so that runoff from the site does not contaminate the seasonal creek. These source control features included in project design are:

Fuel-Dispensing Area: The fueling island would consist of a concrete slab and canopy with a hydraulically isolated drainage system. The drainage system would be a concrete swale directing any fuel spill or stormwater runoff to a perimeter trench drain that discharges into an oil/water separator with an emergency shut-off valve. Any discharge that flows through the oil/water separator and perimeter trench drain would drain to the sanitary sewer system.

Car Wash: The car wash would have a permanent roof and would include floor materials consisting of concrete to prevent infiltration of polluted wash water. It would have an independent and isolated drainage system that would discharge to the sanitary sewer.

Trash Enclosure: The trash enclosure, which would be on the west side of the site (see Figure 2.0-2) would be constructed with a material base that is impervious to spills, and would be covered with a permanent roof. The area would have an independent and isolated drainage system that would discharge to the sanitary sewer.

Storm Drain Signage: Storm drain message markers would be placed at all storm drain inlets in the project site.

The proposed project would also include a special stormwater quality treatment device (StormFilter®) sized for the rate and amount of runoff from the site. This type of treatment device consists of an underground vault with a filter media that traps pollutants such as hydrocarbons, metals, and other common pollutants in runoff.

FINDING OF CONSISTENCY WITH GENERAL PLAN POLICY 7.3.3.4

General Plan Policy 7.3.3.4 requires a minimum setback of 50 feet from intermittent streams and wetlands. The policy provides that the standard 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. Policy 7.3.3.4 further provides for projects where the County allows an exception to wetland and riparian buffers; development in or immediately adjacent to such features must 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.

The proposed project would result in grading and permanent hardscape within 50 feet of the seasonal stream and wetland. As such, the County will need to make a determination of consistency with Policy 7.3.3.4, which is considered part of the proposed project because such a finding would be required in conjunction with project approvals. The applicant has provided a written justification for the reduced setback, prepared in accordance with County standards, which is presented in Impact BIO-6 in Section 3.2, Biological Resources. This Draft EIR provides the necessary information and analysis for the County to make such a determination.

CONSTRUCTION SCHEDULE

It is anticipated it would take approximately three to four months to construct the project (approximately one month for earthwork, two months for paving and building, and one month for finish work). Construction activities must be conducted in accordance with the County Health, Safety, and Noise Element and limited to the daylight hours between 7:00 a.m. and 7:00 p.m. on any weekday, and 8:00 a.m. and 5:00 p.m. on weekends and federal holidays, unless an exception is made by the County in order to alleviate traffic congestion and safety hazards.

2.5 INTENDED USES OF THE EIR

The following actions, entitlements, and permits/approval would be necessary to implement the proposed project. These actions will consist of the following:

- Certification of the EIR by the Board of Supervisors (BOS).
- BOS approval of a Development Plan to allow the construction of a gas station, convenience store, and single-bay self-service car wash.
- BOS Finding of Consistency with General Plan Policy 7.3.3.4 to allow reduction of the wetland setback from 50 feet to 10 feet.
- BOS approval of Design Waiver request from Standard Plan 103-D to allow a longer taper for the encroachment.
- The project applicant previously received a Fish and Game Code Section 1600 Streambed Alteration Agreement (SAA) from the California Department of Fish and Wildlife (CDFW) for the then-proposed project. The CDFW will either revalidate the current SAA or will request the applicant submit a new notification.
- The project applicant must submit a Notice of Intent for coverage under the Statewide General Permit (Water Quality Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-006-DWQ) for construction activities to the State Water Resources Control Board. This will require preparation of a Stormwater Pollution Prevention Plan (SWPPP), which would include the site itself as well as the fill import source site.
- The project applicant must submit an Authority to Construct application for the fueling stations to the El Dorado County Air Quality Management District.
- The project applicant must submit an application for a permit for New Installation of Underground Storage Tanks (UST) to the County Hazardous Materials and Solid Waste Divisions prior to beginning any work pertaining to the installation of the fuel USTs. A Hazardous Materials Business Plan must also be submitted to the Division and approved by the Division prior to operation of the fueling system.
- Encroachment permit from the El Dorado County Transportation Division for work within Green Valley Road and Sophia Parkway.
- Grading and building permits from County Development Services Division for on-site grading and structures, and a grading permit for the off-site fill source.

3.0 Introduction to the Impact Analysis

3.0.1 ENVIRONMENTAL ISSUES EVALUATED IN DETAIL IN THIS DRAFT EIR

Section 1.0, Introduction, described the background for the determination on which technical issues require detailed analysis in this Draft EIR. In accordance with the Settlement Agreement, the Draft EIR contains the technical analysis for the following:

- Traffic and Circulation (Section 3.1); and
- Biological Resources (Section 3.2)

SECTION FORMAT

Each technical section is divided into subsections that provide a description of existing conditions, regulatory setting, standards of significance, project impacts, and feasible mitigation measures to avoid, minimize, or compensate for significant adverse impacts. A cumulative analysis is included at the end of each section.

Each section begins with a description of the proposed project's environmental setting and a regulatory framework as it pertains to a particular issue. The environmental setting provides a point of reference for assessing the environmental impacts of the proposed project and alternatives.

Standards of significance are identified for each technical issue area. The standards of significance are used to determine if the impact of the proposed project, when evaluated against the environmental setting, could result in a significant environmental impact. The standards of significance are specific to each technical issue area. The standards of significance are intended to provide a "bright line" of demarcation (i.e., clear distinction) between a less than significant impact and a significant impact.

The setting description in each section is followed by an impact analysis, and where required, mitigation measures. The impacts and mitigation portion of each section includes impact statements, prefaced by a number in bold-faced type. An explanation of each impact is followed by an analysis of its significance. Mitigation measures pertinent to each individual impact appear after the impact section. The extent to which a mitigation measure would avoid or lessen an impact is also described.

CUMULATIVE ANALYSIS

The State CEQA Guidelines define a cumulative impact as two or more individual impacts that, when considered together, are significant or that compound or increase other significant environmental impacts. The incremental impact of a project may be considerable when viewed in the context of other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time (State CEQA Guidelines Section 15355).

State CEQA Guidelines Section 15130(b) indicates that an adequate discussion of significant cumulative impacts requires consideration of either of the following:

(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or

(B) A summary of projections contained in an adopted local, regional, or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect.

In reaching a conclusion for the impact analyses in Sections 3.1 and 3.2, five considerations were made: (1) the geographic scope of the cumulative impact area for that resource, (2) the time frame within which project-specific impacts could interact with the impacts of other projects, (3) whether a significant adverse cumulative condition presently exists to which project impacts could contribute, (4) the significance of the incremental project-specific contribution to cumulative conditions, and (5) whether any cumulative impact is significant.

3.0.2 ENVIRONMENTAL ISSUES NOT EVALUATED FURTHER IN THIS DRAFT EIR

As noted in Section 1.0, Introduction, as stated in the Judgment on the Settlement Agreement the Court found the following environmental issue areas were adequately addressed in the revised MND and do not need to be evaluated in the Draft EIR but rather referenced and summarized in the Draft EIR: aesthetics, agriculture/forestry resources, air quality, cultural resources, geology/soils, hazards/hazardous materials, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, and utilities/service systems. Further, as provided by Section 15128 of the CEQA Guidelines, an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. The analysis is this section was prepared in accordance with this provision. Information presented in the MND has been updated, where necessary, as required under the Settlement Agreement.

AESTHETICS

Scenic Vistas and Resources

There are no officially designated scenic vistas or scenic highways in the vicinity of the project site (El Dorado County 2004; Caltrans 2015). Furthermore, there are no large trees, rock outcroppings, or historic buildings on the site which contribute to exceptional aesthetic value in the area. Therefore, the project would not block views of any scenic vistas or damage any scenic resources within a scenic highway corridor. There would be no impact.

Visual Character and Quality

The portion of the project that would be developed with project features has limited aesthetic value, particularly when viewed within the context of the surrounding landscape. The site is small (approximately 2 acres), and gravel and cobbles that were previously placed on the site in random locations and of varying heights have become overgrown with nonnative grasses shrubs and weeds, which dry out in the summer. In the southern portion of the site, which would not be developed, vegetation along a seasonal stream and a wetland to the south, along with some tall trees, provide some visual relief.

When viewed to the south from the Green Valley Road/Sophia Parkway intersection, the background is dominated by Sophia Parkway and its four lanes with median landscaping as it runs south and by one- and two-story residential development, which is topographically higher than the project site. Views to the south from public trails in the Folsom Lake SRA are of an urbanized area with residential development dominating the background. The project site and vacant land immediately south comprise a relatively small area surrounded by the residential development, low-rise non-residential commercial uses to the east, and Sophia Parkway.

When viewed from residential development and by motorists traveling north on Sophia Parkway, the site appears small, tends to blend in with its surroundings, and is dominated by views of Folsom Lake, the Mormon Island Auxiliary Dam, and open space with extensive trees, with only Green Valley Road as an intervening visual feature. A few residences and vacant residential parcels that have not been developed south of the project site similarly tend to blend in with the Folsom Lake background. There is some undeveloped land between the residential subdivision on the east side of Sophia Parkway and the project site that is grass-covered and thus may be perceived as having an openness, but this area is zoned for residential use and is not a component of any designated open space area or otherwise recognized by the County as having a distinct or unique visual character. Commercial development east along Green Valley Road is also visible, and the extent, mass, and scale of that development form a relatively continuous urban corridor that can be seen from the south. The parcel on the west side on Sophia Parkway, which once contained a retail nursery, is visually similar to the project site.

The proposed project would result in a change in visual character of the project site from a vacant lot with limited aesthetic qualities to a developed site with buildings, structures, pavement, and landscaping. Development of the project site would be visually consistent with the urbanizing character of the area, which includes retail commercial uses east of the site (including another gas station), and the extensive residential development south of the site. The proposed development, including design features, construction materials, color palette, and signage (which are described Section 2.0, Project Description, and shown in Figures 2.0-4 through 2.0-6), would be in compliance with the site development requirements in the Zoning Code Development Standards (Section 130.32.040) for commercial development and the County's Community Design Guide. No variances or design waivers are proposed. The aesthetic value of the riparian habitat within the southern portion of the project site would be maintained and enhanced because this portion of the site is not proposed for development of buildings, structures, or pavement. The site would be landscaped (see Figure 2.0-8 in Section 2.0, Project Description), which would include new plantings on all sides of the site as well as riparian revegetation south of the buildings. Further, views of the project site from surrounding properties would be buffered by landscaping on the southern and eastern sides, which would include cedar and native oaks as well as numerous shrubs. Therefore, the proposed project would not substantially degrade the existing visual character or quality of the site or the surrounding properties, and impacts would be **less than significant**.

Light and Glare

The project site currently does not contain any sources of nighttime lighting. However, there are various sources of nighttime lighting in close proximity to the proposed project, including commercial development on Green Valley Road just east of the project site on both the south and north sides of the roadway and residential development in the Promontory subdivision on Sophia Road just south of the project. There are also street lights along Sophia Parkway leading north to its intersection with Green Valley Road and lighting that illuminates the RV/boat storage yard immediately adjacent to the site.

The proposed project would be a new source of nighttime lighting in an area in which there is already nighttime lighting. The County Ordinance Code Section 130.14.170 specifies outdoor lighting requirements, and the proposed project would be in compliance with the requirements. The proposed development would include wall-mounted light fixtures, recessed canopy lights, and 12-foot-high pole-mounted lights. In accordance with the County's lighting ordinance, these lighting fixtures would be shielded to avoid potential light spillage and/or glare which could adversely affect neighboring properties. The photometric analysis demonstrates that, with the use of shielded light fixtures, the project would not create significant amounts of light outside

the parcel boundaries (Barghausen 2012). Therefore, proposed project lighting would not adversely affect nighttime views in the area.

The proposed project would include solar panels on the fuel island canopy. Panels are made of nonreflective glass and would not be a source of glare, when viewed from properties that are topographically higher than the project site (e.g., residential development south on Sophia Parkway). The rear of the building (facing south toward residential development) would not have any windows, and therefore would not be a potential source of glare at residential properties to the south.

For the reasons described above, light and glare impacts would be **less than significant**.

Cumulative Aesthetics Impacts

There is existing commercial development immediately adjoining the project site on the east. The parcel immediately west of the project site that formerly contained a retail nursery is zoned for commercial use. Land north of Green Valley Road in the Folsom SRA is not zoned for commercial use. To the immediate south of the project site is a residential subdivision. Property on the south side of Green Valley Road in the City of Folsom is the Mormon Island Wetland Preserve, a part of the Folsom SRA, and is not zoned for commercial use. Other than the parcel immediately west, there are no other approved or proposed commercial uses with which the proposed project could combine to result in a significant impact. The proposed project's aesthetics impacts would be less than cumulatively considerable, and therefore **less than significant**.

AGRICULTURE AND FORESTRY RESOURCES

Review of the Important Farmland GIS map layer for El Dorado County developed under the Farmland Mapping and Monitoring Program indicates that the project site contains AwD, (Auburn silt loam with 2 to 30 percent slopes). AwD soils are not classified as unique and soils of local importance or as statewide important farmland or prime farmland. The project site is designated for commercial uses, and is not located within or adjacent to lands designated with the Agricultural Districts (A) General Plan Land Use Overlay. The property is not located within a Williamson Act Contract, and the project would not conflict with existing zoning for agricultural use, and would not affect any properties under a Williamson Act Contract. There is no forest or timber on the project site. Neither the General Plan nor the Zoning Ordinance designates the site as an important Timberland Preserve Zone and the underlying soil types are not those known to support timber production. There would be **no impacts** at the project level or cumulatively.

AIR QUALITY

Background

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. The western slope of El Dorado County, where the project site is located, is in the Mountain Counties Air Basin (MCAB). The topography and meteorology of the MCAB combine such that local conditions predominate in determining the effect of emissions in the basin. Regional airflows are affected by the mountains and hills, which direct surface air flows, cause shallow vertical mixing, and create areas of high pollutant concentrations by hindering dispersion. Inversion layers, where warm air overlays cooler air, frequently form and trap pollutants close to the ground. During longer daylight hours in summer, stagnant air, high temperatures, and plentiful sunshine provide the conditions and energy for the photochemical

reaction between reactive organic compounds (ROG) and nitrogen oxides (NOx), both ozone precursors, that results in the formation of ozone (O_3). In the summer, the strong upwind valley air flowing into the basin from the Central Valley located to the west is an effective transport medium for O_3 precursors and O_3 generated in the San Francisco Bay Area and the Sacramento and San Joaquin Valleys to flow into the MCAB. These transported pollutants predominate as the cause of O_3 in the MCAB and are largely responsible for exceedences of the state and federal O_3 standards in the MCAB. The California Air Resources Board (CARB) has officially designated the MCAB as "ozone impacted" by transport from those areas.

Applicable Rules and Regulations

The El Dorado County Air Quality Management District (EDCAQMD) has adopted the *Rules and Regulations of the El Dorado County Air Pollution Control District*, establishing rules and standards for the reduction of stationary source air pollutants (ROG/VOC [volatile organic compound], NOx, and O_3) and pollutants generated during construction. Rule 215 (Architectural Coatings) defines the quantities of ROG permitted for use in new construction. Rule 223 (Fugitive Dust-General Requirements) limits man-made fugitive dust to the property line of the construction site. Rule 223-1 requires a Fugitive Dust Control Plan be prepared and submitted to the EDCAQMD prior to ground-disturbing activities. Rule 224 (Cutback Asphalt Paving Material) defines the types of cutback and emulsified asphalts permitted for use in El Dorado County. Under Rule 610 (Land Development Fees), the EDCAQMD would charge a fee to review the Fugitive Dust Control Plan required by Rule 223-1. To ensure that all bid specifications and construction contracts include noticing of these requirements so contractors are aware of them early on, the project would be conditioned to stipulate on the bid specifications and construction contract that the contractor shall adhere to all applicable EDCAQMD rules and prepare a Fugitive Dust Control Plan.

After construction, the project must comply with Rule 238 (Gasoline Transfer and Dispensing), which provides standards for gasoline transfer and dispensing operations, the purpose of which is to limit emissions of organic compounds from gasoline-dispensing facilities.

Construction Emissions

The project's construction activities would include site preparation (land clearing and grubbing), earth-moving (cut and fill [including 12,000 cubic yards of soil import to raise site grade], trenching, soil compaction, and grading), and general construction activities (adding improvements such as roadway median, sidewalk/curb improvements, utility connections, and buildings). These construction activities would result in the emission of the following criteria air pollutants:

1) Combustion emissions of ROG, NOx, carbon monoxide (CO), sulfur oxide (SOx), coarse particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips;

2) Fugitive dust (PM_{10}) from soil disturbance; and

3) Evaporative emissions (ROG) from asphalt paving and architectural coating applications.

Air emissions were estimated using the CalEEMod 2013.2.2 software program.[1] Detailed results are included in **Appendix B**. The predicted maximum daily construction-generated emissions of ROG, NOx, PM_{10}, and $PM_{2.5}$ associated with project construction are compared with the EDCAQMD significance criteria in Table 3.0-1.

TABLE 3.0-1
PROJECT CONSTRUCTION EMISSIONS (MAXIMUM) POUNDS PER DAY – UNMITIGATED

Construction Phase	ROG	NOx	PM_{10}	$PM_{2.5}$	CO
Construction Activities	16.7	39.3	7.8	4.5	65.6
EDCAQMD Significance Criteria	**82**	**82**	**BMPs**	**BMPs**	**None**
Significant?	*No*	*No*	*No*	*No*	*N/A*

Source: Emissions modeled by PMC using the California Emissions Estimator Model (CalEEMod), version 2013.2.2 computer program. Model data outputs are included in Appendix B.

Notes: BMPs (best management practices) refers to implementation of EDCAQMD-required fugitive dust control measures set forth in Rule 231 and Rule 231-1 (Fugitive Dust Control Plan), which the EDCAQMD has determined would reduce PM impacts to less than significant. The applicant will be required to submit the Fugitive Dust Control Plan before a grading/building permit can be issued.

As shown in Table 3.0-1, none of the project construction emissions would exceed EDCAQMD significance thresholds. Impacts would be **less than significant**.

Construction would also generate diesel particulate matter (DPM) emissions. Potential impacts are addressed under "Toxic Air Contaminants," below.

Operational Emissions

ROG, NOx, CO, PM_{10}, and Other Pollutants

Implementation of the proposed project would result in increased regional emissions of PM_{10} and $PM_{2.5}$, as well as ROG, NO_x, and CO. Operational air emissions would be from two sources: stationary and mobile.

The EDCAQMD has adopted guidelines for determining potential adverse impacts to air quality in the region. The EDCAQMD guidelines state that operational activities are considered a potentially significant adverse impact if such activities generate total emissions in excess of the EDCAQMD established thresholds of 82 pounds of ROG or NOx per day (EDCAQMD 2002: 5-2). According to the *Guide to Air Quality Assessment* (EDCQMD 2002: 6-2), if identified ROG and NOx emissions are determined to be less than significant, then emissions of CO and PM_{10} would also be considered less than significant.

Operations-related criteria and precursor emissions of an average year that would result from implementation of the proposed project are listed in Table 3.0-2.

[1]An air quality analysis was prepared for the previously adopted MND. The air quality analysis has been updated for this Draft EIR. The analysis includes the use of the most current software emissions model and quantification of construction emissions based on the currently proposed project, which does not include the fast-food restaurant component that was included in the previously approved project.

TABLE 3.0-2
OPERATIONS-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS – UNMITIGATED (POUNDS PER DAY)

Operational Activities	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_X)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Summer Emissions – Pounds per Day (Maximum)						
Proposed Project	4.3	2.5	14.4	0.0	1.2	0.4
Winter Emissions – Pounds per Day (Maximum)						
Proposed Project	4.0	2.8	19.4	0.0	1.2	0.4
EDCAQMD Potentially Significant Impact Threshold	82 pounds/day	82 pounds/day	--	--	--	--
Exceed EDCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2013.2.2. See Appendix B for emission model outputs.

As shown in Table 3.0-2, proposed project emissions would not exceed EDCAQMD significance thresholds for operational air pollutant emissions. Therefore, impacts resulting from project operations would be **less than significant**.

Toxic Air Contaminants

Toxic air contaminants (TACs) are pollutants that pose a present or potential hazard to human health. TACs are classified as either carcinogenic or noncarcinogenic. The state and federal governments regulate TACs through statutes and regulations that require maximum or best available technologies be incorporated in the source of the pollutants in order to limit emissions.

Construction-Generated Diesel Particulate Matter

DPM has been identified as a potential health risk and is a TAC. The proposed project would generate DPM emissions during construction from diesel-fueled equipment such as graders, excavators, and paving equipment, and soil import haul trucks. Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The use of diesel-powered construction equipment associated with the construction of the proposed project would be temporary and episodic and would occur over several locations isolated from one another. Additionally, project construction would occur within a 1.3-acre area. Standard construction projects contained in a site of less than 5 acres are generally considered to represent less than significant health risk impacts due to limitations on the amount of off-road diesel equipment able to operate and thus the reduced amount of generated DPM, the reduced amount of dust-generating ground disturbance possible compared to larger construction sites, and the reduced duration of construction activities compared to the development of larger sites. Furthermore, the proposed project would be subject to and would comply with California regulations limiting idling to no more than five minutes, which would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. For these reasons and because diesel fumes disperse rapidly over relatively short distances, DPM generated by construction activities, in and of itself, would not be expected to expose sensitive receptors to substantial amounts of air toxics. Impacts would be **less than significant**.

Fueling Station TACs

Gasoline vapors, including benzene, are released during the filling of stationary aboveground and underground storage tanks as well as during the transfer from those tanks to individual vehicles. The project proposes eight self-service fuel pumps with 16 fueling positions. Fueling stations are a source of gasoline vapors that would include benzene, the primary TAC associated with gas stations. Gasoline vapors are also a source of the chemical emissions toluene and xylene; however, these substances are not carcinogenic and are therefore not considered TACs. Nonetheless, their exposure can still result in negative noncancer health effects. The California Office of Environmental Health Hazard Assessment (OEHHA) is a state agency that reviews advances in science concerning health effects and exposure assessment. Recent updates to the OEHHA air toxics hot spots program risk assessment guidelines in March 2015 suggest a higher health risk posed from the exposure of benzene vapors than previously understood.

The EDCAQMD has stringent requirements for the control of gasoline vapor emissions from gasoline-dispensing facilities. EDCAQMD Rule 238 (Gasoline Transfer and Dispensing) limits emissions of organic compounds from gasoline-dispensing facilities. Rule 238 prohibits the transfer or allowance of the transfer of gasoline into stationary tanks at a gasoline-dispensing facility unless a CARB-certified Phase I vapor recovery system is used; it further prohibits the transfer or allowance of the transfer of gasoline from stationary tanks into motor vehicle fuel tanks at a gasoline-dispensing facility unless a CARB-certified Phase II vapor recovery system is used during each transfer. Vapor recovery systems collect gasoline vapors that would otherwise escape into the air during bulk fuel delivery (Phase I) or fuel storage and vehicle refueling (Phase II). Phase I vapor recovery system components include the couplers that connect tanker trucks to the underground tanks, spill containment drain valves, overfill prevention devices, and vent pressure/vacuum valves.

Phase II vapor recovery system components include gasoline dispensers, nozzles, piping, break away, hoses, face plates, vapor processors, and system monitors. Rule 238 also requires fuel storage tanks to be equipped with a permanent submerged fill pipe and the storage tank which prevents the escape of gasoline vapors. The EDCAQMD's permitting procedures require substantial control of emissions, and permits are not issued unless TAC risk screening or TAC risk assessment can show that risks are not significant. The EDCAQMD may impose limits on annual throughput to ensure that risks are within acceptable limits. In addition, California has statewide limits on the benzene content in gasoline, which greatly reduces the toxic potential of gasoline emissions.

Gasoline-dispensing facilities are also regulated by EDCAQMD Rule 523 (New Source Review) which provides for the air district review of TAC emissions in order to evaluate potential public exposure and health risk, mitigate potentially significant health risks resulting from these exposures, and provide net health risk benefits by improving the level of control when existing sources are modified or replaced. Pursuant to EDCAQMD Rule 523, stationary sources having the potential to emit TACs, including gas stations, are required to obtain permits from the EDCAQMD. Permits may be granted to these operations provided they are operated in accordance with applicable EDCAQMD rules and regulations.

In addition to these requirements, the EDCAQMD provides guidance to evaluating potential risk impacts associated with developing new gas stations in proximity to sensitive receptors. According to the EDCAQMD (2002), if any new source of TACs, including a gas station, is located within 1,000 feet of a school, the EDCAQMD is required to send a notice of the proposed project to the parents of all students and to all residences within 1,000 feet of the

source. The notice must include a description of the project and a description of the health risks posed by the project. In recognition of these provisions, under its qualitative criteria, the EDCAQMD will require a health risk assessment (HRA) if TACs are or will be emitted within 0.25 mile of a school or proposed school site. (HRAs are intended to address health risks from airborne contaminants.) The closest school to the project site, Lakeview Elementary School, is located approximately 2,794 feet (0.5 mile) to the east. Therefore, there are no schools within the EDCAQMD buffer area surrounding the proposed project, and no HRA is required per EDCAQMD's protocol.

The California Air Pollution Control Officers Association (CAPCOA)[2] also provides guidance on evaluating potential health risk impacts associated with developing new gas stations in proximity to sensitive receptors. CAPCOA's guidance, *Health Risk Assessment for Proposed Land Use Projects* (2009), provides recommendations on the appropriate size of buffer distances associated with various types of common sources. According to the CAPCOA guidance document, "typical" gasoline dispensing facilities should be located no closer than 50 feet from a sensitive land use, such as a residence. Furthermore, "large" gas stations (defined as a facility with a throughput of 3.6 million gallons per year or greater) should be located no closer than 300 feet from a sensitive land use. The closest sensitive receptor to the proposed project includes a residential backyard approximately 550 feet south of proposed project operations (i.e., fueling area). Therefore, there are no sensitive receptors within the most conservative CAPCOA-recommended buffer distance surrounding the proposed project.

For the reasons stated, the proposed project would result in **less than significant** impacts associated with exposing sensitive receptors to substantial air toxic concentrations associated with fuel-dispensing emissions.

Fuel Delivery TACs

The project is expected to generate an average of 16 diesel-powered fuel truck deliveries per week, or less than three trucks per day. Based on its experience, the EDCAQMD has identified screening levels in Section 7.5.3 of the CEQA Guide (EDCAQMD 2002) that provide conservative indicators that a project would not result in significant emissions of TACs related to this type of activity. These screening levels are:

1) Development projects with diesel truck traffic of less than 10 trucks/day.

2) Industrial projects that result in emissions of organic gases, particulates, NOx, or SOx below the applicability levels specified under the Toxic Hot Spots Act (AB 2588; see Health & Safety Code Sec. 44322 and the applicable CARB regulations implementing that act [see 17 California Code of Regulations Sec. 93300.5 and guidelines incorporated therein]).

3) Construction emissions of ROG and NOx that meet the screening criteria in Section 4.2.

[2] CAPCOA, formed in 1976, is a nonprofit association of the air pollution control officers from all 35 local air quality agencies throughout California. CAPCOA promotes clean air and provides a forum for sharing of knowledge, experience, and information among the air quality regulatory agencies around the state.

The approximately three trucks per day would be lower than the screening threshold. The project is a commercial development, consisting of a gasoline fueling station and a one-bay car wash. The project is not an "Industrial Project." The proposed project would not result in ROG and NOx emissions that would exceed EDCAQMD thresholds. Because the proposed project would not exceed any of these criteria, TACs impacts associated with fuel truck deliveries would be **less than significant**.

Naturally Occurring Asbestos (NOA)

Asbestos is also regulated as a TAC. The site contains Auburn silt loam soils, which are underlain by metamorphic rock. The site is mapped as "Areas That Probably Do Not Contain Asbestos" (Churchill, Higgins, and Hill 2000). The site is not in or within one-quarter mile of a "Found area of NOA" or an area "More Likely to Contain Asbestos" (El Dorado County 2005). Therefore, an Asbestos Hazard Dust Mitigation Plan is not required. If unexpected NOA is discovered on-site during the course of construction, the EDCAQMD must be notified and an Asbestos Hazard Dust Mitigation Plan must be prepared and implemented. Construction of the project will have **no impacts** resulting from NOA.

Cumulative Air Quality Impacts

Criteria Air Pollutants

The EDCAQMD's primary criterion for determining whether a project has significant cumulative ROG and/or NOx impacts is whether the project is consistent with an approved plan in place for their reduction (Sacramento Regional 8-Hour Ozone 2011 Reasonable Further Progress Plan). This plan was developed for application in the Sacramento region, including the MCAB portion of El Dorado County, to bring the region into O_3 attainment as required by the federal and California Clean Air Acts. This criterion is applicable to both the construction and operation phases of a project. According to the EDCAQMD's *Guide to Air Quality Assessment* (2002), a project is conforming to the air quality plans if:

1) The project does not require a change in the existing land use designation (e.g., a general plan amendment or rezone), or projected emissions of ROG and NO_x from the proposed project are equal to or less 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 emissions reduction measures contained in and/or derived from the air quality plans.

4) The project complies with all applicable district rules and regulations.

The proposed project does not require a change in the existing land use designation or rezone. As demonstrated above, emissions generated from proposed project construction and proposed project operations would not exceed EDCAQMD thresholds of 82 pounds per day of either ROG or NOx. The project will be required to comply with all applicable EDCAQMD rules and regulations. Therefore, the proposed project would result in a **less than significant** cumulative ROG and/or NOx impact.

CO is an attainment pollutant in El Dorado County, and local CO concentrations are expected to decline even further in the future as more stringent CO standards for motor vehicles take effect (EDCAQMD 2002: 8-2). The EDCAQMD does not consider CO to be an area-wide or regional pollutant that is likely to have cumulative effects. The EDCAQMD considers projects with less than significant "project alone" CO emissions to also be less than cumulatively significant. As identified above, "project alone" CO emissions would be less than significant; therefore, cumulative impacts would be less than cumulatively considerable.

The EDCAQMD's primary criterion for determining whether a project has significant cumulative PM_{10}, NO_2, and/or SO_2 impacts is whether:

1) The project is not significant for "project alone" emissions of these pollutants;

2) The project complies with all applicable rules and regulations of the EDCAQMD; and

3) The project is not cumulatively significant for ROG, NOx, and CO.

The proposed project is not significant for "project alone" emissions, and the project will be required to comply with all applicable EDCAQMD rules and regulations, which would result in less than significant cumulative impacts for ROG and NOx. Therefore, the proposed project would result in less than cumulatively considerable PM_{10}, NO_2, or SO_2 impacts, and the this would be a **less than significant cumulative impact**.

Toxic Air Contaminants

TACs are typically localized and do not occur region-wide. Therefore, the EDCAQMD considers a project contribution of TAC emissions cumulatively significant if large development projects occur on contiguous parcels and each one is emitting TAC (EDCAQMD 2002: 8-4). The project is not considered large, is not contiguous to another large development project, and NOA does not occur on-site.

Potential sources of TAC emissions in the vicinity of the project site include a gas station on the north side of Green Valley Road approximately 510 feet northeast of the project site. Additionally, there is a gas station located 1.24 miles to the west of the project site on Green Valley Road and another located 1.34 miles to the east of the site on Green Valley Road.

If a project does not individually result in exposure of sensitive receptors to substantial TAC concentrations, then similarly the project does not cumulatively result in exposure of sensitive receptors to substantial TAC concentrations. As previously described, there are no sensitive receptors existing within the most conservative CAPCOA-recommended buffer distances surrounding the proposed project, and thus the proposed project would have no effect upon any sensitive receptors in terms of health risk. Because the proposed project is outside those identified buffer distances, the project would also result in less than significant *cumulative* impacts associated with the exposure of sensitive receptors to substantial air toxic concentrations. The proposed project singularly would not impact sensitive receptors and would not combine with other sources of TAC emissions to cumulatively impact sensitive receptors. This impact is less than cumulatively considerable, and therefore a **less than significant cumulative impact**.

Land Use Conflicts and Sensitive Receptors

There are no existing structures on the property. The surrounding area is characterized by residential and commercial development, with undeveloped or open space parcels intermixed. Folsom Lake and the Brown's Ravine Recreation Area are north of the site on the north side of Green Valley Road and designated open space. The site is bordered on the east by an RV storage yard designated commercial, and two undeveloped parcels designated medium density residential. West of the site across Sophia Parkway is an undeveloped parcel designated commercial. Commercial development is considered compatible with the land use designations of the surrounding parcels.

The EDCAQMD CEQA Guide identifies sensitive receptors as 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 (EDCAQMD 2002: 3-2). There are three sensitive receptors located within one mile of the project site: Lakeview Elementary School (0.5 miles east); Promontory Community Park (0.65 miles southeast; and Lil' Scholars University Preschool (0.83 miles east). Based on the results of the quantitative analysis of the project's projected air emissions, described above, and EDCAQMD rules and regulations, the proposed project would not have a significant project impact on any sensitive receptors, and cumulative impacts would be **less than significant**.

Odors

Gasoline service stations are not classified as an odor-generating facility (EDCAQMD 2002: Table 3.1). The proposed project would not create significant levels of odors during operation. Heavy-duty construction equipment used for the construction of the proposed project would emit odors. However, construction activity would be short term and finite in nature. Furthermore, equipment exhaust odors would dissipate quickly and are common in a suburban environment. For these reasons, potential development in the project is not anticipated to create objectionable odors affecting a substantial number of people and thus is considered **less than significant** for the project and cumulative impacts.

CULTURAL RESOURCES

A Cultural Resources Assessment (Peak and Associates 2012) was prepared for the project, which consisted of a records review and site survey. The assessment identified no significant prehistoric or historic archaeological sites, features, or artifacts. The project site is not known to contain any known paleontological sites or known fossil strata/locales. There is little likelihood of human remain discovery on the project site. Therefore, the proposed project would not disrupt, alter, or adversely affect a prehistoric or historic archaeological site or property or historic or cultural item significant to a community or ethnic or social group; a paleontological site; affect a landmark of cultural/historical importance; conflict with established recreational, educational, religious, or scientific uses of the area; conflict with adopted environmental plans and goals of the community where it is located; or eliminate important examples of California history or prehistory. Project and cumulative impacts would be **less than significant**.

The County imposes standard of conditions of approval on development projects to address the potential for discovering cultural resources. In the event previously unknown sub-surface historical, cultural, or archeological sites or materials are disturbed during earth disturbance and grading activities on the site, standard Conditions of Approval will be implemented to ensure impacts remain less than significant. The standard Conditions of Approval will require that the grading/improvement plan for the proposed project include notes stating the procedures to be

followed in the event archaeological resources are discovered during grading and construction activities, including work stoppage, County notification, assessment by qualified archaeologist, and implementation or appropriate methods for handling the resource or item in accordance with state law. In the event of the discovery of human remains, all work shall cease and the County coroner shall be immediately notified pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code and Section 5097.98 of the Public Resources Code. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, procedures shall be implemented, at the applicant's expense, for handling the remains in accordance with Section 5097.98 of the Health and Safety Code.

GEOLOGY/SOILS

The project site is situated approximately 420 feet above mean sea level and is approximately 10 feet, on average, below the elevation of the adjacent roadways. The site grade is elevated from the native terrain by several feet of fill. The site is within the western foothills region of the Sierra Nevada and is underlain by Copper Hill Volcanics bedrock. The site is bisected by a seasonal stream, and the site slopes southward toward the seasonal creek.

Seismic Hazards

There are no Alquist-Priolo earthquake fault zones or active faults at or near the project site. There would be no impact related to fault rupture. El Dorado County is considered an area with low potential for seismic activity and is not subject to strong groundshaking. Due to the absence of a permanent elevated groundwater table, the relatively low seismicity of the area, and the relatively shallow depth to the bedrock horizon, the potential damage due to site liquefaction, slope instability, and surface rupture are considered negligible (Youngdahl 2012). Any potential impacts due to seismic impacts would be addressed through compliance with the California Building Code, which the County implements through Chapter 110.16 of the County Code. All structures would be built to meet applicable standards, and the County would verify that the project complies with applicable standards before issuing a building permit. Seismic hazards impacts would be **less than significant**. Seismic hazards are site-specific and would not combine with other projects in a manner that would be cumulatively considerable.

Other Geologic/Soils Hazards

The project site is sloped from the north toward the seasonal stream that runs through the site. There are no steep slopes on the surrounding parcels bordering the project site. There are no unusual conditions on the project site that would require special construction methods. The site would not be anticipated to be subject to off-site landslide, lateral spreading, subsidence, liquefaction or collapse, nor does it have expansive soils. The proposed project would implement the recommendations in the Youngdahl geotechnical report (2012) for placement of engineered fill, compaction, drainage, installation of underground utilities, slopes, and design considerations such as foundations. At the time of the submittal of the grading or improvement plans, the applicant is required to submit a soils and geologic hazards report (meeting the requirements for such reports provided in the El Dorado County Grading, Erosion, and Sentiment Control Ordinance [Code of Ordinances Section 110.14]), and receive approval from the Transportation Division. Grading design plans must incorporate the findings of detailed geologic and geotechnical investigations and address, at a minimum, grading practices, compaction, slope stability of existing and proposed cuts and fills, erosion potential, ground water, pavement section, and recommended design criteria for any retaining walls. Impacts would be **less than significant**.

The site would be raised to transition from the existing grade at Green Valley Road/Sophia Parkway by importing fill to create a flat building pad. Approximately 12,000 cubic yards of imported soil would be required. The grading permit requires the analysis of fill materials, scarification of native soil prior to fill, and compaction. Import material is required to be analyzed with a soils report as part of the grading permit process prior to transporting it to the project. This would ensure fill placed under structures and pavement would be properly engineered. Impacts would be **less than significant**.

Geologic/soils hazards would be less than significant with implementation of County regulations, would be site-specific, and would not combine with other projects to create similar impacts. The proposed project's contribution would be less than cumulatively considerable, and cumulative impacts would be **less than significant**.

Erosion

The site soils north of the stream are covered with piles of soils deposited during the construction of the surrounding roads. The site would be graded and sloped toward the creek. The slope would include erosion control vegetation, which would also be extended around the east side of the site. There is no grading proposed for south of the stream where there are no piles of soil. There is no topsoil on the site.

The proposed project would involve grading more than 250 cubic yards on-site for the purpose of supporting a structure and therefore must meet the provisions contained in the County of El Dorado Grading, Erosion, and Sediment Control Ordinance adopted by the County of El Dorado Board of Supervisors, August 10, 2010 (Ordinance #4949). The project would also require a separate grading permit for removing fill from the site across Sophia Parkway.

All grading activities on-site would be required to comply with the El Dorado County Grading, Erosion, and Sediment Control Ordinance including the implementation of pre- and post-construction BMPs. The implemented BMPs are required to be consistent with the County's California Stormwater Pollution Prevention Plan issued by the State Water Resources Control Board to eliminate run-off and erosion and sediment controls. The removal of soil at the off-site fill source would also be required to implement grading permit conditions, including BMPs to control erosion.

Project erosion impacts would be **less than significant**. There are no other approved or planned projects in the immediate vicinity of the project in El Dorado County that would result in the grading of more than 250 cubic yards with which the proposed project could combine to result in a cumulative impact. Soil disturbance northwest of the project site for the Mormon Island Auxiliary Dam is geographically separated from the project site and would not combine with the project's erosion impacts. Therefore, the project's contribution would be less than cumulatively considerable, and therefore a **less than significant cumulative impact**.

GREENHOUSE GAS EMISSIONS

The proposed project would generate greenhouse gas (GHG) emissions during construction and operation. GHG emissions were estimated using the CalEEMod 2013.2.2 software program.[3]

[3] A GHG analysis was prepared for the previously adopted MND. The GHG analysis has been updated for this Draft EIR. The analysis includes the use of the most current software emissions model and quantification of construction emissions based on the currently proposed project, which does not include the fast-food restaurant component that was included in the previously approved project.

Detailed results are included in **Appendix B**. The analysis of GHG emissions is cumulative because the proposed project would not and cannot generate enough GHG emissions to influence global climate change on its own. However, the proposed project would contribute to the environmental impact by its incremental contribution of GHG emissions that, when combined with the cumulative increase of all other anthropogenic sources of GHGs, affects global climate change.

Short-Term (Construction) GHG Emissions

Construction emissions were quantified for an approximate four-month construction period occurring in 2015-16 and assumed the following construction activities: site preparation, grading, building construction, paving, and architectural coating. The construction emissions estimation also accounted for approximately 12,000 cubic yards of imported fill material, which would be needed to increase the elevation of the site closer to the existing grade at Green Valley Road/Sophia Parkway. These construction activities would generate approximately 101 metric tons of carbon dioxide equivalents ($MTCO_2e$), which would not exceed the impact threshold of 1,100 $MTCO_2e$ per year.[4]

Because construction GHG emissions would be a one-time release and substantially less than the threshold, construction would not result in a significant contribution to global climate change.

Long-Term (Operational) GHG Emissions

The long-term project operational GHG emissions estimate incorporates potential area source and vehicle emissions, utility, water usage, wastewater, and solid waste generation emissions. The proposed project's construction-related GHG emissions were amortized over the lifetime of the proposed project (assumed to be 25 years) and included with the operational GHG emissions. Estimated project GHG emissions are summarized in Table 3.0-3.

TABLE 3.0-3
UNMITIGATED OPERATIONAL GHG EMISSIONS

	Annual CO_2 emissions ($MTCO_2e$)
Annual Operational GHG Emissions	310
Total Construction GHG Emissions[1]	4 (101/25)
Total GHG Emissions	**314**

[1] Construction GHG emissions are a one-time release; however, the project's construction GHG emissions have been amortized over a 25-year period (i.e., the approximate lifetime of the proposed project) and added to the annual operational GHG emissions to provide a conservative estimate. The estimate is considered conservative because construction would occur for only one year, and assuming construction emissions occur each year presents an overestimated value for operational GHG emissions.

Source: CalEEMod Version 2013.2.2. See Appendix B for emission model outputs.

[4] The EDCAQMD currently uses the 1,100 $MTCO_2e$ threshold for construction activities adopted by the Sacramento Metropolitan Air Quality Management District in October 2014.

The proposed project's total unmitigated GHG impacts are 314 $MTCO_2e$ per year, which does not exceed the 1,100 $MTCO_2e$ per year threshold.[5] Therefore, project GHG impacts would be less than cumulatively considerable. Cumulative impacts would be **less than significant**.

While the project does not require GHG emissions mitigation, the proposed project would be required to comply with the 2013 California Green Building Standards Code (CALGreen Code), which includes measures to increase the energy efficiency of buildings and other measures that would help reduce GHG emissions.

HAZARDS AND HAZARDOUS MATERIALS

Hazardous Materials

Construction

Construction of the proposed project would involve the transport, use, and disposal of common hazardous materials such as fuels, oil, paints, and landscaping materials. These materials would be used in accordance with product labeling and applicable federal and state regulations.[6] These materials would be used only temporarily during construction activities. As such, the handling of these materials on the project site would not create a significant hazard to the public or the environment. Construction impacts would be **less than significant**.

Operation

The project would also include the installation of two underground gasoline storage tanks (USTs) and would receive routine deliveries of fuel transferred into the USTs for dispensing from the pumps. UST installation and operation are regulated by the state under Division 20, Chapter 6.7 of the Health & Safety Code (starting with Section 25280) and the California Code of Regulations, Title 23 Water, Division 3, Chapter 16 ("Underground Storage Tank Regulations"). The project would be required to obtain a New Installation of Underground Storage Tanks permit from the County Environmental Management Department Hazardous Materials Division prior to beginning any work pertaining to the installation of the USTs. Installation of the tanks would be required to adhere to the County's guidelines for installation of USTs including the installation of a leak detection/continuous monitoring system.

After construction, the project would be required to comply with EDCAQMD Rule 238 (Gasoline Transfer and Dispensing). This rule applies to the transfer of gasoline from any tank truck, trailer, or railroad tank car into any stationary storage tank or mobile fueler, and from any stationary storage tank or mobile fueler into any mobile fueler or motor vehicle fuel tank. Fuel deliveries to

[5] The EDCAQMD currently uses the 1,100 $MTCO_2e$ threshold for land development projects adopted by the Sacramento Metropolitan Air Quality Management District in October 2014.

[6] Federal, state, and local agencies regulate hazardous substances. Federal agencies include the EPA, the Occupational Safety and Health Administration (OSHA), and the US Department of Transportation. Applicable federal regulations and guidelines are contained primarily in Titles 10, 29, 40, and 49 of the Code of Federal Regulations. At the state level, the California Department of Toxic Substances Control enforces regulations implementing the Hazardous Waste Control Law and Hazardous Substances Information and Training Act (California Health and Safety Code Section 6.95, and California Code of Regulations Title 22). CalOSHA is responsible for hazardous materials safety in the workplace. The California EPA has adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program, which is implemented at the local level by a local agency—the Certified Unified Program Agency (CUPA). The El Dorado County Environmental Management Department Hazardous Waste Division is the CUPA for the county.

the project (approximately three trucks per week) would be subject to US Environmental Protection Agency (EPA), US Department of Transportation, and California Highway Patrol regulations for the transport of fuels. A Hazardous Materials Business Plan must be submitted to and approved by the County Environmental Management Department prior to operation of the fueling system. Operational impacts would be **less than significant**.

Compliance with existing regulations and programs would minimize potential risks to the public and the environment associated with the use, storage, and transport of hazardous materials associated with the proposed project to levels that would be less than cumulatively considerable. This would be a **less than significant cumulative impact**.

Emergency Planning

The project site would be developed in accordance with County standards, which requires that all roadway improvements and internal circulation are designed and constructed with adequate space for fire apparatus to access and maneuver within the site. These standard conditions include constructing access roads to support the load of fire apparatus, installation of a Knox-Box for after-hours access to alarmed buildings, proper building addressing, and dedication of a fire lane/no parking zone. Incorporation of these standard conditions would ensure that adequate emergency access is provided at the project site. Project and cumulative impacts would be **less than significant**.

Other Hazards

The project site is not located within one-quarter of a mile of a school and is not included on a list of hazardous materials sites (SWRCB 2015; DTSC 2015). There would be no impact.

The project is not located in the vicinity of a public or private airstrip. As such, implementation of the proposed project would not result in any safety hazards related to airport or aircraft operations in the project area. There would be no impact.

The project site is separated from surrounding vegetated areas by adjacent roadways and commercial uses. The site is located in an urbanizing area and is accessible to firefighting equipment. The site and surrounding areas are not designated by the California Department of Forestry and Fire Protection (CAL FIRE) as a Very High Fire Hazard Severity Zone (CAL FIRE 2009). The EDHFD has reviewed the project plans and identified the necessary fire protection features to be incorporated into project design (EDHFD 2013). Project and cumulative impacts would be **less than significant**.

HYDROLOGY AND WATER QUALITY

Drainage

The site currently drains to the existing intermittent stream that bisects the parcels and flows from east to west. The intermittent stream continues westward under Sophia Parkway through a culvert system consisting of three reinforced concrete pipes and headwall, then flows into Mormon Island Wetland Preserve and eventually to Willow Creek at Lake Natoma.

The project proposes to add approximately 0.95 acres of impervious surface and 0.39 acres of landscaping to the project site, while the remaining 0.8 acres would remain undisturbed. Runoff from the developed portion of the site would be collected in a series of at-grade concrete swales, catch basins, and pipe conveyance system (including water quality BMPs), and then

discharged into the existing seasonal stream/drainage course that bisects the site (Barghausen 2013). Figures 2.0-8 and 2.0-10 in Section 2.0, Project Description show proposed drainage features. The proposed drainage system and landscaping are intended to reduce the post-construction runoff peak flows and volumes to be substantially the same as preconstruction conditions. Therefore, the project would not result in flooding on- or off-site. Impacts would be **less than significant**. There are no other approved or planned projects adjoining the site that would alter drainage patterns. As such, the project would not result in a cumulatively considerable contribution to cumulative impacts and therefore this would be a **less than significant cumulative impact.**

Flooding Hazards

According to the Federal Emergency Management Agency's Flood Insurance Rate Map (FIRM) for the project area, the project site is not located within the 100-year floodplain (FEMA 2008). The Morman Island Auxiliary Dam, one of the dams containing Folsom Lake, is located approximately 1,400 feet northwest of the project site across Green Valley Road. Therefore, the site is within the inundation zone of this dam. However, the dam is regulated by the US Bureau of Reclamation to ensure dam stability and public safety, and a major improvement project to address identified deficiencies and reinforce the dam is expected to be completed in 2016. Once completed, the potential risk of failure would be considered negligible. The project site is not located near a coastal area or enclosed body of water of sufficient size to pose a risk of inundation by tsunami or seiche waves. The proposed project would not alter the design or function of any flood protection system. There would be no project or cumulative impact.

Groundwater Depletion and Recharge

The proposed project would be supplied water by the El Dorado Irrigation District (EID), which obtains its water supplies from surface water sources (EID 2013a). Therefore, the project's demand for water supply would not contribute to the depletion of groundwater supplies. The project would minimally increase the amount of impervious surface. Site runoff would continue to discharge to the seasonal stream that bisects the parcel south of the proposed improvements. Therefore, the project would not interfere substantially with groundwater recharge, and project and cumulative impacts would be **less than significant**.

Water Quality

Impact BIO-4 in Section 3.2, Biological Resources, presents a detailed analysis of the proposed project's potential impacts on water quality, particularly with regard to riparian habitat function and value.

The project would also include the installation of three fuel USTs. USTs are regulated under the California Code of Regulations, Title 23 Water, Division 3, Chapter 16 ("Underground Storage Tank Regulations") to protect water quality. As noted above, installation of the tanks would be required to adhere to the County's guidelines for installation of USTs, including the installation of a leak detection/continuous monitoring system. Impacts would be **less than significant**.

LAND USE AND PLANNING

The proposed project is a vacant lot. Surrounding land use consists of the two roadways on the north and west, a commercial RV/boat storage business on the east, and commercial-zoned vacant land south of the storage yard. Two medium-density residential lots abut a portion of the property on the south, and high-density residential lots are adjacent at the southeast corner.

There is a vacant parcel zoned for commercial use on the west side of Sophia Parkway. The applicable land use plan is the El Dorado County General Plan, which designates the site for Commercial (C) use.

The proposed project would not displace any existing uses because there are none on the site. It would not physically divide any existing uses in a way that would impair or prevent access to surrounding uses, or limit the ability of adjoining uses to develop under existing General Plan and zoning.

The project consists of a service station, car wash, and a convenience store, which are allowed uses under the Commercial (C) land use designation under General Plan Policy 2.2.1.2 and C Zone District with an approved Development Plan. With an approved Development Plan, the project would be consistent with the El Dorado County Zoning Ordinance designation of Commercial-Planned Development because the proposed project provides areas for retail sales and service station use pursuant to Section 130.32.020.B of the County Code of Ordinances.

General Plan Policy 2.2.5.21 directs that development projects shall be located and designed in a manner that avoids incompatibility with adjoining land uses. The building's architecture, materials, and colors would be consistent with those of other commercial businesses along Green Valley Road between the El Dorado/Sacramento county line and Salmon Falls Road. The design would be consistent with the design of the buildings approved in the Green Valley Market Place (the Safeway Shopping Center). The landscape plan includes trees along the east and south sides to buffer views from those locations. Street trees would be planted along Green Valley Road and Sophia Parkway. The lights would be limited to a height of 12 feet and would be full cutoff fixtures that would prevent sky lighting and trespass horizontally off the parcel. No signs would be permitted on the south and east sides to further soften the commercial look from nearby residences. The noise analysis has demonstrated that the car wash-related noise would not exceed General Plan noise standards. As such, the proposed project would not result in any environmental impacts related to land use compatibility. There would be no project or cumulative impact.

The proposed project would not conflict with an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan as there are no such plans that apply to the project site. There would be no impact.

Impact BIO-6 in Section 3.2, Biological Resources, provides an analysis of consistency with General Plan Policy 7.3.3.4, which establishes interim standards for wetland buffer and setback requirements until the zoning ordinance is amended with final setback requirements.

MINERAL RESOURCES

The project site is not mapped as being within a Mineral Resource Zone by the State of California (CGS 2001) or in the El Dorado County General Plan, and the site does not contain any mineral resources of known local or statewide economic value. There would be no project or cumulative impact.

NOISE

Permanent Noise Increase

An Environmental Noise Analysis (Bollard 2015) was prepared for the proposed project, and the results of that analysis are presented in this section.

Transportation Noise

The traffic study prepared for the project indicates that the project would result in increases in off-site AM peak hour traffic volumes of approximately 9 percent on Green Valley Road west of Sophia Parkway, 2 percent on Green Valley Road east of Sophia Parkway, and 3.5 percent on Sophia Parkway south of Green Valley Road. The corresponding increase in traffic noise levels on these roadways would be 0.4 decibels (dB), 0.1 dB, and 0.15 dB Leq[7], respectively. Due to the considerable volume of existing traffic relative to new trips which would be generated by the project, the increase in off-site traffic noise levels is predicted to be imperceptible and therefore **less than significant** for the project.

Non-Transportation Noise

General Plan Policy 6.5.1.7 states that noise created by new non-transportation noise sources shall be mitigated so as not to exceed any of the noise level standards of Table 3.0-4, as measured immediately within the property line of the receiving property.

TABLE 3.0-4
PERFORMANCE STANDARDS FOR NON-TRANSPORTATION NOISE SOURCES
EL DORADO COUNTY NOISE ELEMENT – COMMUNITY AREAS

	Daytime (7am-7pm)	Evening (7pm-10pm)	Night (10pm-7am)
Hourly dB	55	50	45
Max. dB	70	60	55

Each of the noise levels specified above shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.

The noise analysis evaluated project-related noise and determined that the car wash and vacuums elements of the project would create the most noise. Therefore, these project features are described in greater detail below.

Vacuums: Based on the type of vacuums the applicant proposes to use (Super-Vac Motor with Steel-Insulated Dome), the noise analysis determined that the proposed vacuum system would be expected to generate a noise level of approximately 67 dBA[8] at a distance of 20 feet. For the purpose of the analysis, it was assumed that, between the two vacuums, there could be continuous operation of a vacuum system for an entire hour (worst case). This is considered worst case because it is highly unlikely that vacuums would be used for an entire hour during nighttime hours. Because vacuums were assumed to operate continuously for an entire hour, average hourly noise levels (Leq) and maximum noise levels (Lmax) would be the same. A sound attenuation rate of 6 dB per doubling of distance was used for vacuum noise propagation. The predicted vacuum noise levels at the nearest noise-sensitive receiver locations (residential property lines, including vacant lots zoned residential but not yet built) would range from 35 to 45 dB Leq/Lmax.

[7] The Leq is the average A-weighted sound level during a stated time period (often a one-hour period). "A-weighted" decibels (dB) is a special frequency-dependent rating scale used in acoustical analysis that relates noise to human sensitivity to noise because the human ear is not equally sensitive to a given sound level at all frequencies.

[8] dBA refers to "A-weighted" decibels (dB).

These levels would be in compliance with the applicable daytime noise level standard of 55 dB Leq, as well as the evening noise level standard of 50 dB Leq. Impacts would be **less than significant**.

Car Wash: Noise levels generated by car washes are primarily due to the drying portion of car wash operations. The project applicant has indicated that it intends to install a 30-horsepower drying system manufactured by Premier Touchless Drying System, which would be expected to generate a noise level of approximately 78 dBA Lmax at a distance of 50 feet with the car wash entrance and exit doors open. According to the manufacturer's data, with the doors closed, there would be a 12 dB noise reduction, or 66 dBA Lmax at 50 feet.

Because the drying cycle represents a small portion of the overall wash, the dryers are anticipated to operate for no more than 15 minutes during any given hour. As a result, the calculated hourly Leq for 15-minute use of the dryer cycle would be 6 dB lower than the reference Lmax of 66 dBA at 50 feet for continuous operation of the dryers. The resulting reference level, adjusted for time of use, is 60 dBA Lmax at a reference distance of 50 feet. It should be noted that the reference level of 60 dB Leq at 50 feet is only at locations directly facing the car wash entrance or exit. At locations with side exposure to the car wash, actual noise levels are predicted to be at least 5 dB lower. In addition to the noise reduction provided by the car wash entrance and exit doors, a 4-foot-high screen/retaining wall along the rear (south) of the project would provide additional shielding for receptors to the south. This shielding is expected to provide an additional 5 dB of car wash noise reduction at those receptors.

Car wash dryer noise levels are predicted to be approximately 31-45 dB Leq and 37-51 dBA Lmax at the nearest noise-sensitive receiver locations. These levels would be in compliance with the County's daytime, evening, and nighttime noise standards at all the nearest noise-sensitive receptors. Project impacts would be **less than significant**.

Cumulative Noise Impacts

There are no other projects in the immediate vicinity of the proposed project that would be expected to be under construction at the same time as the proposed project to result in a cumulative impact. The proposed project's contribution to construction noise would not be cumulatively considerable. Because the proposed project's traffic-related contribution to noise level increases would be imperceptible, they would not be cumulatively considerable. The proposed project's car vacuums and car wash noise would be intermittent. There are no other existing, approved, or planned non-transportation noise sources in the immediate vicinity that would combine with the project. The proposed project would result in a less than cumulatively considerable contribution to ambient noise levels and noise level increases. Therefore, cumulative noise impacts would be **less than significant**.

Temporary Noise Increase During Construction

The project's construction activities would include site preparation (land clearing and grubbing), earthmoving (cut and fill [including 12,000 cubic yards of soil import to raise site grade], trenching, soil compaction, and grading), and general construction activities (adding improvements such as roadway median, sidewalk/curb improvements, utility connections, and buildings). These activities would result in short-term noise increases. The federal EPA has compiled data regarding the noise-generating characteristics of typical construction activities. These data are presented in Table 3.0-5 (Noise Ranges of Typical Construction Equipment) and Table 3.0-6 (Typical Outdoor Construction Noise Levels). These noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of

distance. For example, a noise level of 86 dBA measured at 50 feet from the noise source to the receptor would reduce to 80 dBA at 100 feet from the source to the receptor, and reduce by another 6 dBA (to 74 dBA) at 200 feet from the source to the receptor. Construction activities associated with excavation, fill placement and compacting, building the structures, and paving in the developable portion of the site north of the seasonal stream would be located approximately 550 feet from the nearest residential uses.

TABLE 3.0-5
NOISE RANGES OF TYPICAL CONSTRUCTION EQUIPMENT

Construction Equipment	Noise Levels in dBA Leq at 50 feet[1]
Front Loader	86
Trucks	88
Concrete Mixers	88
Concrete Pumps	85
Back Hoe	88
Tractor	88
Scraper/Grader	88
Paver	88

Source: EPA 1971

[1] Machinery equipped with noise control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.

TABLE 3.0-6
TYPICAL OUTDOOR CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level at 50 Feet with Mufflers (dBA L_{eq})[1]	Noise Level at 100 Feet with Mufflers (dBA L_{eq})	Noise Level at 550 Feet with Mufflers (dBA L_{eq})[2]
Ground Clearing	82	76	61
Excavation/Grading	86	80	65
Foundations	77	71	56
Structural	83	77	62
External Finishing	86	80	64

[1] from EPA 1971

[2] The noise levels at the off-site sensitive uses were determined with the following equation from the HMMH Transit Noise and Vibration Impact Assessment, Final Report: $L_{eq} = L_{eq}$ at 50 ft.–20 Log(D/50), where L_{eq} = noise level of noise source, D = distance from the noise source to the receiver, $L_{eq\ at\ 50\ ft.}$ = noise level of source at 50 feet.

The standard conditions of approval for the project would limit the hours of construction activities to 7:00 am to 7:00 pm Monday through Friday and 8:00 am to 5:00 pm on weekends and federally recognized holidays. The El Dorado County General Plan Public Health, Safety and Noise Element establishes maximum allowable construction noise levels that would be considered acceptable during the designated construction time. Table 6-3 of the Public Health, Safety and Noise Element establishes a maximum construction related noise level of 75 dB for

residential uses during the hours of 7:00 am to 7:00 pm. As shown in Table 3.0-6, noise levels during construction would range from 65 dB to 56 dB. As such, construction noise would be below the identified maximum allowable noise levels. Further, construction-related noise would be intermittent in nature and would not generate continuous noise levels above the General Plan standards, and it would be prohibited during the more sensitive nighttime hours. Temporary noise impacts would be **less than significant**. There are no other adjacent sources of construction noise that would combine with the project to result in a cumulative impact, and therefore this would be a **less than significant cumulative impact**.

Groundborne Vibration

The project may generate intermittent groundborne vibration or shaking events during project construction. However, no buildings or other improvements have been proposed that would require unusual construction techniques, such as pile driving, which could cause vibration at levels which could result in annoyance and/or structural damage at nearby sensitive receptors. Potential groundborne vibration would be further limited by adherence to the time limitations of construction activities as described previously. The project would not be a source of vibration during operation. Therefore, the project would result in a **less than significant** impact related to groundborne vibration. There are no other adjacent sources of vibration that would combine with the project to result in a cumulative impact, and therefore this would be a **less than significant cumulative impact.**

Aircraft Noise

The project site is not located within an airport land use plan nor is it within two miles of a public airport or public use airport. The project site would not contain occupied uses (such as residents) that would be exposed to noise from cargo aircraft operations at Mather Field. There would be no project or cumulative impacts.

POPULATION AND HOUSING

No housing or people would be displaced. The project would not induce population growth or require extension of infrastructure that could foster growth (see also Section 5.3, Growth-Inducing Impacts). Routine maintenance visits to the facility would be limited to employees or carrier-approved maintenance personnel. There would be no project or cumulative impact.

PUBLIC SERVICES

The EDHFD currently provides fire protection services to the project area. The EDHFD did not respond with any concerns that the project would significantly affect its ability to provide adequate fire protection (EDHFD 2013). Therefore, development of the project would not be anticipated to increase the demand for fire protection services, and would not prevent the EDHFD from meeting its response times for the project or its designated service area any more than exists today. Police services would continue to be provided by the El Dorado County Sheriff's Department. Due to the size and scope of the project, the demand for additional police protection would not be anticipated. Construction of new or expanded facilities would not be required that would result in physical environmental effects. Project and cumulative impacts would be **less than significant**.

The proposed project would not result in any permanent population-related increases that would substantially contribute to increased demand on schools, parks, or other governmental services that could, in turn, result in the significant need for new or expanded facilities. There would be no project impact, and therefore no cumulative impact.

RECREATION

Folsom Lake SRA and Mormon Island Wetland Preserve can be accessed from trails north and west of the site, respectively. However, the proposed project does not include any increase in permanent population that would contribute to increased demand on recreation facilities or contribute to increased use of existing facilities. There would be no project or cumulative impact.

TRANSPORTATION/TRAFFIC

There are no congestion management programs applicable to El Dorado County. There would be no project or cumulative impact.

The proposed project would not involve aircraft operations or pose safety risks to aircraft. It is not within any airport safety zone. There would be no project or cumulative impact.

Please see Section 3.1, Traffic and Circulation, for analysis of other transportation-related topics.

UTILITIES/SERVICE SYSTEMS

Water Supply and Wastewater

The project proposes to use metered domestic water. The EID provided a Facility Improvement Letter (FIL) 1212-023 dated December 7, 2012, which is valid for three years. The FIL reported that Assessment District No. 3 (AD3) was established to provide water and sewer facilities to serve the El Dorado Hills area and that the property is in AD3. The FIL states the property currently has an allotment of 13 equivalent dwelling units (EDUs) of water and sewer service.

The project would require 10 EDUs of water supply.[9] The FIL reported that, as of January 1, 2012, there were approximately 4,752 EDUs available in the El Dorado Hills Water Supply Region. The available EDUs noted in the FIL were based on the EID's 2012 Water Resources and Service Reliability Report (Table 1, Water Meter Availability). The EID published its 2015 Water Resources and Service Reliability Report in August 2015. As of January 1, 2015, there were 4,088 EDUs available (EID 2015). There would be sufficient water supply to serve the project as proposed.

There is an 8-inch water line in Sophia Parkway and a 6-inch water line along the eastern property line of the parcel. The EDHFD has determined that the minimum fire flow for this project is 1,500 gallons per minute for a two-hour duration while maintaining a 20-psi (pounds per square inch) residual pressure. As reported in the FIL, according to the EID's hydraulic model, the existing system can deliver the required fire flow. In order to provide this fire flow and receive service, the applicant would construct a water line extension connecting to both water lines. The environmental impacts of these connections are included in the analyses presented in this section. No off-site connections that would require construction outside the immediate project site would be required. Project and cumulative impacts would be **less than significant**.

[9] The FIL provided water demand data based on the previous project, which included a fast-food restaurant. The proposed project evaluated in this Draft EIR does not include a fast-food restaurant because the applicant has removed it from the project. As such, the water demand would be lower than the 10 EDUs reported in the FIL.

The FIL stated the project would require 10 EDUs of sewer service.[10] Wastewater disposal for the proposed project would be provided by EID facilities. The FIL reported that there is a sewer lift station (Promontory No. 3) located approximately 200 feet south of the property. There are two 6-inch gravity sewer lines located in Sophia Parkway, near the lift station (located just south of the project site). These sewer lines have adequate capacity at this time. In order to receive service from either of these lines, an extension of facilities of adequate size must be constructed. The project is subject to the Promontory Applicant Reimbursement Agreements and would be required to pay reimbursement for the cost of constructing two regional sewer trunk lines and sewer lift station. Project and cumulative impacts would be **less than significant**.

Storm Drainage

As described previously, runoff from the developed portion of the site would be collected in a series of at-grade concrete swales, catch basins, and a pipe conveyance system (including water quality BMPs) that would be constructed as part of the project. Storm flows would be discharged into the existing seasonal stream/drainage course that bisects the site (Barghausen 2013). The on-site drainage would be controlled in such a manner as to not increase the downstream peak flow more than the predevelopment 10-year storm event or cause a hazard or public nuisance. Because the proposed project would not result in an increase in flows, it would not contribute to cumulative impacts on drainage infrastructures. Project and cumulative impacts would be **less than significant**.

Solid Waste

County Ordinance No. 4319 requires that new development provide areas for adequate, accessible, and convenient storing, collecting, and loading of solid waste and recyclables, and that adequate space is included in the project for solid waste collection. The trash enclosure would be constructed with a material base that is impervious to spills, and it would be covered with a permanent roof. This would minimize the potential for trash to carried off-site via wind or water.

The proposed project would generate approximately 1 cubic yard per day of solid waste (365 cubic yards per year) during operation. On-site solid waste collection service would be provided by El Dorado Hills Community Services District, which contracts with El Dorado Disposal Service, a Wastes Connections Company, for franchised solid waste collection, disposal, and recycling services. Waste is transported to the Western El Dorado Recovery Systems Transfer Station and Material Recovery Facility (MRF) in Placerville. The MRF handles mixed municipal waste and has a maximum permitted throughput of 400 tons per day. Currently, two landfills, both outside of the county, are used by the waste collection and disposal services: Lockwood Landfill, located at Sparks, Nevada, and Potrero Hills Landfill, located in Solano County, California. The project's waste generation (365 cubic yards per year) would be a minimal contribution to the MRF and landfills' waste streams. The applicant is also required to comply with Chapter 8.43 of the County's Ordinance Code, which requires individuals or businesses demolishing or constructing projects with structure footprints exceeding 5,000 square feet in area to recycle at least 50

[10] The FIL provided sewer data based on the previous project, which included a fast-food restaurant. The proposed project evaluated in this Draft EIR does not include a fast-food restaurant because the applicant has removed it from the project. As such, the sewer demand would be lower than the 10 EDUs reported in the FIL.

percent of the construction and demolition debris created. Construction and operational impacts on solid waste facilities would be **less than significant** under project and cumulative conditions.

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3.1 TRAFFIC AND CIRCULATION

INTRODUCTION

This section analyzes the potential impacts of the proposed project on the transportation system and identifies mitigation measures to lessen impacts. The Judgment on the Settlement Agreement[1] identified the following traffic-related issues that are required to be analyzed in the EIR:

A. Traffic impacts:

1) five intersections (Green Valley Road/Sophia Parkway; Green Valley Road/Blue Ravine Road/E. Natoma Street; Green Valley Road/El Dorado Hills Boulevard; Green Valley Road/Amy's Lane; Sophia Parkway/Elmores Way/Socrates Place)

2) two roadway sections or segments (Green Valley Road from E. Natoma Street to Sophia Parkway; Green Valley Road from Sophia Parkway to El Dorado Hills Boulevard)

3) review of the installation of a "pocket lane" and installation of a full deceleration lane eastbound at Sophia Parkway and Green Valley Road

C. Design of the Sophia Parkway/Green Valley Road intersection as it pertains to potentially significant impacts to automobile, pedestrian, and bicycle safety; and

D. Alternatives as required by CEQA, including an alternative of the installation of a full deceleration lane extending east from the intersection of Green Valley Road and Sophia Parkway and the alternative of a "pocket lane" as previously considered by the Board of Supervisors.

In addition to these topics, this section also evaluates issues identified during the NOP scoping process, including the length and duration of vehicle queues along Green Valley Road, potential design hazards associated with the location of the driveways (particularly on Green Valley Road) and vehicle conflicts with pedestrians and bicycles at the Green Valley Road/Sophia Parkway intersection and along Green Valley Road.

A Traffic Impact Analysis (TIA) was prepared in 2015 by KD Anderson & Associates for the proposed project (*Traffic Impact Analysis for ARCO AM/PM Gas Station & Convenience Market Site, Green Valley Road at Sophia Parkway, El Dorado Hills, El Dorado County, CA).* The TIA included an evaluation of the topics required in the Settlement Agreement as well as issues raised in public comments. The description of existing conditions, assumptions for evaluating impacts, and impact conclusions presented in this section are based on the TIA, which is included in **Appendix C** of this Draft EIR.

[1] The Settlement Agreement also included items "B" and "E" (see Section 1.0, Introduction). These items do not pertain to the traffic impact evaluation.

3.1.1 EXISTING CONDITIONS

STUDY AREA ROADWAYS AND INTERSECTIONS

The TIA evaluated traffic conditions at six intersections along two arterial roadways in the El Dorado Hills area in western El Dorado County and in the City of Folsom in Sacramento County. The study area roadways and intersections were established in the Judgment on the Settlement Agreement.[2] The locations of the study intersections are shown in **Figure 3.1-1**.

Green Valley Road is an arterial roadway that extends from the City of Folsom in Sacramento County through the Sophia Parkway intersection beyond the El Dorado Hills area to its terminus at the Placerville Drive/Ray Lawyer Drive intersection in Placerville. Generally, the eastern segment of Green Valley Road is a two-lane rural roadway, and the mile of Green Valley Road west of the Sacramento County line into the City of Folsom is also two lanes. Green Valley Road is four lanes for approximately 1.5 miles, beginning just east of the Sacramento County line and continuing past the project site to a point approximately 1,000 feet east of the Francisco Drive intersection. Green Valley Road has generally a slight uphill grade (4%±) from west of Sophia Parkway to east of the project site. The posted speed limit on Green Valley Road in the immediate area of the project site is 50 miles per hour (mph). On-street parking is not allowed. The view from the proposed Green Valley Road driveway looking to the west is unobstructed with a line of sight of over 600 feet. That distance includes the view through the Sophia Parkway intersection.

Sophia Parkway is an arterial street that extends south from its intersection on Green Valley Road for about 4 miles paralleling the Sacramento County/El Dorado County line to its current terminus on Iron Point Road north of US Highway 50 (US 50). The southern portion of this route in Sacramento County is called Empire Ranch Road. In the area of the proposed project, Sophia Parkway is a divided two-lane road with a raised center median and sidewalks. On-street parking is permitted on Sophia Parkway, and the posted speed limit is 50 mph in the immediate vicinity of the project site. The grade along Sophia Parkway is relatively flat adjacent to the project but transitions into an uphill grade of about 8% about 400 feet south of the project site. The topography behind the back of the sidewalks consists of a side slope down to existing fallow land. The roadway also includes a reverse curve with the project frontage along the inside of the curve. The sight distance northbound on Sophia Parkway is greater than 430 feet.

The **Green Valley Road/Blue Ravine Road/East Natoma Street intersection** is located in the City of Folsom, west of the project site. This intersection provides access between El Dorado Hills and the City of Folsom in Sacramento County. It is the first signalized intersection when entering the City of Folsom from El Dorado County and is located approximately 1.25 miles from the site. Green Valley Road approaches the intersection from the north and includes two left-turn lanes, three through lanes, and a free right-turn lane. The road name changes at the intersection to Blue Ravine Road on the south. The Blue Ravine Road approach includes two left-turn lanes, two through lanes, and two right-turn lanes. East Natoma Street is the east-west street and consists of two left-turn lanes, two through lanes, and a right-turn lane on both approaches.

The **Green Valley Road/Sophia Parkway intersection** provides access between El Dorado Hills and the City of Folsom in Sacramento County. This intersection is the last major intersection prior to entering Sacramento County. The intersection is signalized and provides a protected left-turn

[2] The Judgment on the Settlement Agreement did not require evaluation of the Green Valley Road/Francisco Drive intersection; however, County staff determined this intersection should also be evaluated.

lane and through-right lanes on the westbound approach. The eastbound approach has a left-turn lane, two through lanes, and a right-turn lane. The Sophia Parkway northbound approach includes a left lane, a left-through lane, and a right-only lane; the opposing approach provides access to the Folsom Lake State Recreation Area (SRA). These approaches include a split phase signal. U-turns are currently prohibited on the Green Valley Road approaches.

The **Green Valley Road/Amy's Lane intersection** is a tee intersection about 600 feet east of the Green Valley Road/Sophia Parkway intersection. This intersection is stop sign-controlled along Amy's Lane, which includes a single lane approach to the intersection. At Amy's Lane, Green Valley Road consists of two lanes in each direction and a continuous left-turn lane allowing inbound left turns and outbound left turns.

The **Green Valley Road/Francisco Drive intersection** provides access to the north side of El Dorado Hills. The intersection is signalized and provides dual left-turn lanes in the eastbound direction along Green Valley Road; the opposing westbound left is a single left-turn lane. Both approaches include dual through lanes and a right-turn lane. Northbound Francisco Drive includes dual left-turn lanes, a through lane, and a through–right lane, while the southbound approach includes left, through, and right lanes. The intersection operates with protected left turns on all approaches.

The **Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection** provides access to US 50 to the south and access across the American River to the north. The intersection is a four-way signalized intersection. The Green Valley Road approaches include a left-turn lane and a through-right lane. The El Dorado Hills Boulevard approach includes a left-turn lane and a through-right lane, while the Salmon Falls Road approach includes a left-through lane and a right-turn lane. The El Dorado Hills Boulevard/Salmon Falls Road approaches are split phased, and the Green Valley Road approaches are protected.

The **Sophia Parkway/Elmores Way intersection** provides access between Green Valley Road and East Natoma Street in the City of Folsom. The intersection is all-way stop controlled. Sophia Parkway consists of left-turn lanes and through-right lanes in both north and southbound directions. Elmores Way includes a left-through-right lane along the eastbound approach and left-through and right-only lanes along the westbound approach.

PROJECT SITE FACILITIES

An existing driveway on Green Valley Road was constructed when Green Valley Road was widened to four lanes, which provided access to a construction staging area (the project site's former use). This driveway currently provides access to El Dorado Irrigation District (EID) facilities.

LEVEL OF SERVICE

The level of service (LOS) is a basis for describing existing traffic conditions. The LOS measures the quality of traffic flow and is represented by letter designations from "A" to "F," with a grade of "A" referring to the best conditions, and "F" representing the worst conditions. Local agencies typically adopt minimum LOS standards for their facilities. Intersection LOS for signalized and all-way stop controlled intersections are based on the weighted average total delay per vehicle for the intersection as a whole based on the thresholds shown in Table 3.1-1. The average delay experienced by motorists yielding the right of way is the basis for identification of LOS at locations controlled by side-street stop signs. These thresholds are also identified in Table 3.1-1.

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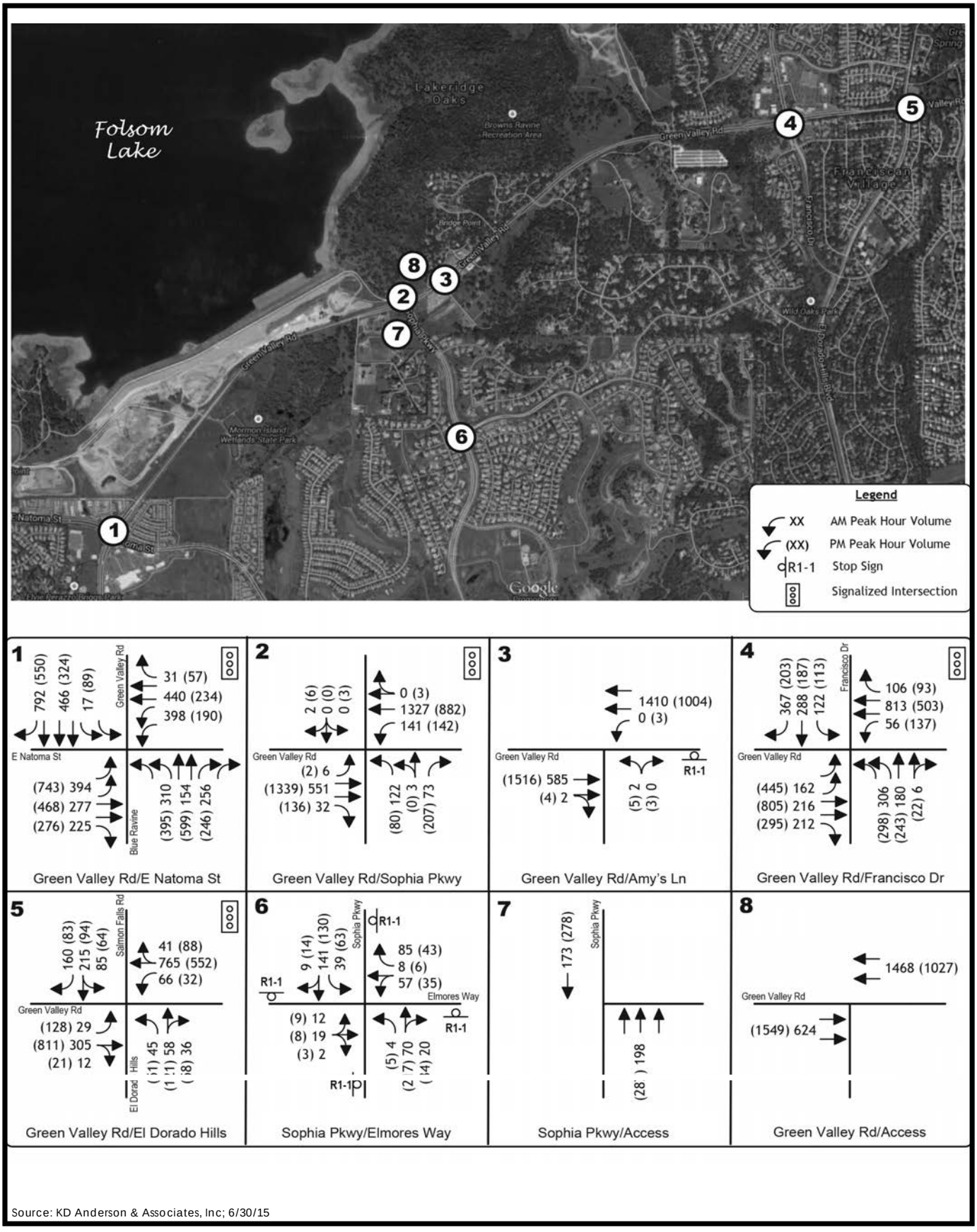


Source: KD Anderson & Associates, Inc; 6/30/15

Not to scale

Figure 3.1-1

Existing Traffic Volumes and Lane Configurations

Michael Baker INTERNATIONAL

TABLE 3.1-1
LEVEL OF SERVICE DEFINITIONS

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. Delay < 10.0 sec	Little or no delay. Delay ≤ 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. Delay > 10.0 sec and < 20.0 sec	Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay > 20.0 sec and < 35.0 sec	Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestion of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35.0 sec and < 55.0 sec	Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay > 55.0 sec and < 80.0 sec	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay > 80.0 sec	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.

Sources: 2000 Highway Capacity Manual, Transportation Research Board Special Report 209, as reported in Traffic Impact Analysis for Green Valley Rd. ARCO AM/PM Site, KD Anderson & Associates, 2015.

EXISTING LEVELS OF SERVICE

Intersection Levels of Service

The existing lane configurations and current peak hour traffic volumes at intersections in the study area are shown in Figure 3.1-1. Figure 3.1-1 identifies the locations of the six intersections, numbered 1 through 6. Intersections 7 and 8 are the proposed driveway access locations. For each of the six study area intersections 1 through 6, the arrows in the diagrams below the aerial photograph show the number of vehicles turning right, left, or continuing through the intersection during the a.m. peak hour and the p.m. peak hour (shown in parentheses). The diagrams also show whether the intersection has a signal or a stop sign. The traffic volumes going past the driveway accesses in the a.m. and p.m. peak hours are shown in intersections 7 and 8.

Traffic volumes at the El Dorado County intersections were obtained from the *Final Corridor Analysis Report for Green Valley Road* prepared by Kittelson & Associates, Inc. in October 2014.

Traffic counts at the Green Valley Road/Blue Ravine Road/East Natoma Street intersection in the City of Folsom were taken by KD Anderson on December 4, 2014.

Table 3.1-2 summarizes current LOS at the six study area intersections during the a.m. and p.m. peak hours. An LOS is not presented for intersections 7 and 8 because they do not exist under current conditions. All five El Dorado County intersections operate at an acceptable LOS, operating at LOS E or better; the Green Valley Road/Blue Ravine Road/East Natoma Street intersection in the City of Folsom operates at LOS C. The City of Folsom identifies LOS C as the acceptable LOS on roadways in Folsom.

TABLE 3.1-2
PEAK HOUR LEVELS OF SERVICE AT INTERSECTIONS (EXISTING CONDITIONS)

Location	Control	AM Peak Hour Intersection		PM Peak Hour Intersection		Traffic Signal Warranted?
		LOS	Average Delay	LOS	Average Delay	
1. Green Valley Rd / Blue Ravine Rd / E. Natoma St	Signal	C	28.3	C	32.1	N/A
2. Green Valley Rd / Sophia Parkway	Signal	B	16.5	C	22.8	N/A
3.Green Valley Rd / Amy's Lane	NB Stop					
Northbound		C	18.7	D	30.7	
Westbound left		---	---	B	14.4	No
4. Green Valley Rd / Francisco Dr	Signal	D	45.1	D	40.3	N/A
5. Green Valley Rd / El Dorado Hills Blvd – Salmon Falls Rd	Signal	E	66.2	E	57.6	N/A
6. Sophia Parkway / Elmores Way	AWS	A	8.9	A	9.8	No

AWS – all way stop

N/A - not applicable

Source: KD Anderson 2015

Queuing

Vehicles queue on approaches to intersections or at bottlenecks on roadway segments. As part of the TIA, the current queuing was investigated through field observation and as a derivative of LOS analysis. El Dorado County guideline is to evaluate queuing at study intersections where queue spillback is anticipated. Queuing was evaluated at two intersections: Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road, where the eastbound left-turn lane is 85 feet long, and the Green Valley Road/Sophia Parkway intersection, where the proposed project is expected to add more than 10 turns in both the northbound and westbound left-turn lanes.

Queuing and platoons (groups of vehicles) were also observed for the eastbound Green Valley Road from the Blue Ravine/East Natoma intersection in Folsom to Sophia Parkway. This roadway segment contains portions where multiple lanes are available as well as a two-lane section where the City of Folsom has a widening project scheduled to be ready for construction in fiscal year 2016/2017.

This segment of Green Valley Road is roughly 6,400 feet long. There are two eastbound travel lanes leaving the Blue Ravine Road/East Natoma Street intersection, and the second lane ends 450 feet from the intersection. The road narrows through a 250-foot-long transition area, and from that point the roadway is two lanes for a mile to the El Dorado County line. Eastbound Green Valley Road begins to widen roughly 630 feet east of the county line, and the approach to the Sophia Parkway intersection includes a 220-foot-long transition area into a separate right-turn and second through lane that are 200 feet long.

Observations

A field review was conducted during the weekday p.m. commute period on Friday, February 27, 2015, to identify the causes and effects of queues that may occur during a typical day. The segment was driven continuously during the peak hour with the following observations.

During the p.m. peak hour, long rolling platoons are created on eastbound Green Valley Road in the two-lane segment between the City of Folsom and El Dorado County as a result of traffic leaving the Green Valley Road/Blue Ravine Road/East Natoma Street intersection. Due to the phasing of the intersection, traffic streams form distinct and separate platoons. Eastbound traffic leaves the intersection traveling at about 40 mph until it reaches the end of the auxiliary through lane where the platoon must merge into a single eastbound lane. Traffic slows down to about 10-15 mph and sometimes stops as the vehicle platoon merges into the single lane. After the immediate effects of this bottleneck, the traffic speed increases, and eastbound traffic can reach 30 to 50 mph as it approaches the Sophia Parkway intersection, depending on where the vehicle is within the platoon.

Depending on the length of the queue and signal timing, the platoon may slow as it approaches Sophia Parkway. The stopped queue was not observed to extend beyond the four-lane roadway section. The length of the stopped queue varies with the green time and cycle length. The green time and cycle length varies based on traffic demand from all approaches. The cycle length varies between 50 and 120 seconds, depending on demand. The side street, left-turn traffic, and occasional pedestrian crossings contributed to the length of queue on eastbound Green Valley Road, but the longer cycle length allowed vehicles in the queue to clear out of the intersection. Trucks also occasionally slowed eastbound traffic, but the longer cycle lengths also cleared the eastbound queues.

Many public comments were received during the Notice of Preparation public review period indicating that there are long queues consistently along eastbound Green Valley Road. The *Highway Capacity Manual* considers a vehicle to be in a queue when it approaches within one car length of a stopped vehicle and is itself about to stop. The TIA preparer observed that the long "queues" are actually "moving" rather than "stopped" queues, and they occurred randomly or as the result of slow-moving vehicles. The TIA concluded that the congestion and queuing along eastbound Green Valley Road is caused primarily by the lane drop from two lanes to one lane in the City of Folsom. The operation of the traffic signal at Sophia Parkway was not observed to be an appreciable factor in queuing along eastbound Green Valley Road.

This segment of Green Valley Road will be widened by the City of Folsom to a four-lane roadway that will connect to the existing four-lane section just west of Sophia Parkway. This widening project is scheduled for construction beginning in fiscal year 2016/2017.

Queue Length Calculation

Synchro-SimTraffic software was used to determine queue lengths at two study locations and to provide a basis for addressing project impacts. The Synchro-SimTraffic simulations were calibrated based on the existing observed stopped queue lengths. The software is a stochastic model (i.e., randomness is present when running the simulations; therefore, the results will vary within each scenario and between scenarios).

Table 3.1-3 presents the simulation queuing results at the Green Valley Road/Sophia Parkway intersection for the eastbound through lanes, westbound left-turn lane, and northbound left-turn lanes. The queue calculated in the westbound left-turn lane at the Green Valley Road/Sophia Parkway intersection exceeds the available storage. However, because the area east of the intersection is a striped two-way, left-turn lane, queue in excess of storage would not block the through lanes.

The 95th percentile queue at the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road already exceeds the available queue length (85 feet) in both the a.m. and p.m. peak hours. County Capital Improvement Program (CIP) Projects GP 178 and GP 159 will widen Green Valley Road to four lanes with turn lanes between Francisco Drive and El Dorado Hills Boulevard-Salmon Falls Road.

TABLE 3.1-3
PROJECTED 95TH PERCENTILE QUEUES (EXISTING CONDITIONS)

Location	Lane Length (feet)	Existing 95th Percentile Queue (feet)	
		AM	PM
1. Green Valley Rd / Sophia Parkway			
Eastbound Green Valley through lanes	-	137	288*
Westbound left-turn lane	230	**356**	**293**
Northbound left-turn lanes	200	117	89
5. Green Valley Rd / El Dorado Hills Blvd-Salmon Falls Road			
Eastbound left-turn lane	85	**96**	**219**

** observed queue length of 225'±*

Length indicated is worst case for multiple lane movements.

***Bold** indicates turn lane length exceeded.*

Source: KD Anderson 2015

Roadway Segments

Green Valley Road east of Sophia Parkway is a four-lane section within El Dorado County, but transitions to a two-lane segment entering Folsom. Table 3.1-4 summarizes current LOS at the two roadway segments along Green Valley Road east and west of Sophia Parkway during the peak hour. The roadway segment west of Sophia Parkway operates at LOS E, while the segments east of Sophia Parkway operate at LOS B or better.

TABLE 3.1-4
GREEN VALLEY ROAD ROADWAY SEGMENTS LEVELS OF SERVICE (EXISTING CONDITIONS)

Location	Facility Classification	LOS Threshold	Eastbound		Westbound	
			PTSF[a] or Density[b]	LOS	PTSF or Density	LOS
West of Sophia Parkway	Class II two-lane	E	95.4%	E	87.7%	E
East of Sophia Parkway	Multi-lane	E	15.7	B	10.4	A

a For two-lane highways, LOS is based on the PTSF (percent time spent following), which is a calculated measure of the percentage of vehicles traveling at headways of less than 3 seconds.

b For multi-lane segments, density measures the proximity of vehicles to each other in the traffic stream and is expressed as the number of passenger cars per mile per lane.

Source: KD Anderson 2015

COLLISION HISTORY

As reported in the TIA, the *Final Corridor Analysis Report for Green Valley Road* summarized recent collision history along 11 miles of Green Valley Road east of the Sacramento County line. That document noted that over the three-year study period, 158 total crashes were reported within the area from the County line to the Lotus Road intersection. A total of 81 crashes occurred in roadway segments (i.e., the section of roadway that is not within 250 feet of a major intersection). More severe crashes were reported in roadway segments than at the intersections within the study area.[3] Rear-end, broadside, and fixed-object were predominant crash types, accounting for approximately 75 percent of all reported crashes. Approximately 70 percent of crashes along the corridor cited "unsafe speed," "unsafe turning movement," and "did not yield right of way" as the contributing factors for crashes.

Collision frequency varied along the corridor. The segment between El Dorado Hills Boulevard and Silva Valley Parkway reported the highest crash rate of 1.22 crashes per million vehicle miles (MVM) along the corridor. The segment of Green Valley Road from Sophia Parkway to Francisco Drive experienced 0.60 crashes per MVM.

The Cameron Park Drive and Ponderosa Road intersections at Green Valley Road each reported the highest crash rate, each with a rate of 0.83 per million entered vehicles (MEV). Cameron Park Drive and Ponderosa Road are approximately 8 and 10 miles east of the project site, respectively. The Sophia Parkway/Green Valley Road intersection experienced a rate of 0.38 crashes per MEV.

El Dorado County has established benchmark thresholds for determining when collision history warrants further investigation. For intersections, the crash rate threshold is 1.0 MEV, and for roadway segments the threshold is 1.7 MVM. None of the study intersections or segments exceed the County's benchmark of average crash rates.

[3] If the accident was within 250 feet of the intersection, it would be attributed to the intersection and not to the segment itself.

PEDESTRIAN AND BICYCLE FACILITIES

Sidewalks and Trails

There is a sidewalk along both sides of Green Valley Road east of Sophia Parkway. The sidewalk along the south side of Green Valley Road ends about midway between Sophia Parkway and Mormon Island Drive to Francisco Drive. The north side sidewalk is continuous to Mormon Island Drive. Along Sophia Drive, the sidewalk extends from Green Valley Road to south of Alexandra Drive.

Crosswalks are striped on the eastern and southern legs of the Green Valley Road/Sophia Parkway intersection. The intersection is equipped with pedestrian indications and push buttons.

The Mormon Island Auxiliary Dam (MIAD) to Brown's Ravine Marina Trail is a local trail along the Folsom Lake shore. The trailhead is located off of the northerly extension of Sophia Parkway beyond Green Valley Road. Parking for the trailhead is limited due to construction activity at the MIAD, and most visitors park along Sophia Parkway and walk to the trailhead.

Bicycle Facilities

Few designated bicycle routes currently exist throughout El Dorado County due to the rural nature of the county, but bicycle lanes have been developed where new construction has occurred.

In the project vicinity, there are bike lanes along Sophia Parkway. There is no bike lane along Green Valley Road along the eastbound approach to the Sophia Parkway intersection, but there are bike lanes on all other approaches and departures.

Pedestrian and Bicyclist Activity

A weekend pedestrian and bicyclist count was conducted for a four-hour, mid-day period on Sunday, March 1, 2015, to gauge the level of activity along and across the Green Valley Road/ Sophia Parkway intersection. The weather that day was clear and reasonably warm. Table 3.1-5 shows the number of pedestrians and bicyclists that were observed. Most bicycle traffic occurred along Green Valley Road, and the average volume was 14 to 24 bicycles per hour in each direction on Green Valley Road. Some bicycle traffic occurred along Sophia Parkway heading toward Folsom, El Dorado Hills, and to the trailhead (i.e., seven per hour). Conversely, bicycle traffic exiting from the trailhead continued onto Sophia Parkway.

Pedestrian traffic within the intersection occurs in the crosswalks on the east and south legs of the intersections. On weekends, the count data confirmed that there are many pedestrians crossing Green Valley Road to access the trailhead, with about 100 pedestrian movements per hour during the peak hours. A "Yield to Pedestrians" sign is posted on the near side northbound signal pole to caution motorists making right turns about the potential conflict with pedestrians crossing within the crosswalk.

TABLE 3.1-5
PEDESTRIAN / BICYCLE ACTIVITY
AT GREEN VALLEY ROAD / SOPHIA PARKWAY INTERSECTION
SUNDAY MARCH 1, 2015

Time	Northbound				Southbound				Eastbound				Westbound			
	Bikes			Total Peds Crossing	Bikes			Total Peds Crossing	Bikes			Total Peds Crossing	Bikes			Total Peds Crossing
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
11-12	2	1	3	100	0	2	0		1	6	1	35	0	21	0	
12-1	2	3	3	92	0	0	0		3	11	3	23	4	24	0	
1-2	4	3	2	105	0	1	0		2	14	1	21	1	11	0	
2-3	2	3	0	98	0	3	0	Prohibited movement	0	4	5	34	8	28	0	Prohibited movement
Total	28			395	6				57			113	97			
Average	7 per hour			99 per hour	2 per hour				14 per hour			28 per hour	24 per hour			

Source: KD Anderson 2015

PARKING

Parking is currently allowed along both sides of Sophia Parkway. Along the east side (i.e., the project side), parking is allowed adjacent to the existing bike lane, ending approximately 160 feet from the intersection at Green Valley Road. There is not adequate width for parking from this point to the intersection. Parking along the west side of Sophia Parkway is allowed, beginning approximately 160 feet from the intersection. Demand for parking along Sophia Parkway is minor and generated primarily by visitors to the Folsom SRA.

PUBLIC TRANSIT

El Dorado County Transit Authority (EDCTA) operates buses throughout El Dorado County. There is no scheduled bus service in the vicinity of the site.

3.1.2 REGULATORY SETTING

STATE

The California Department of Transportation (Caltrans) Highway Design Manual (HDM) sets forth design criteria to ensure the safe function of roadways within the state. Standards relevant to the proposed project have been identified throughout this section in the analysis of project access design impacts.

LOCAL

El Dorado County General Plan

The following policies (or relevant excerpts) from the General Plan are applicable to the proposed project:

TC-Xa.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 intersections during weekday, peak-hour periods in unincorporated areas of the county.

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 Table 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.

TC-Xe For the purposes of this Transportation and Circulation Element, "worsen" is defined as any of the following number of project trips using a road facility at the time of issuance of a use and occupancy permit for the development project:

- 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.

TC-Xf 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.

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 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.

El Dorado County Capital Improvement Program and Traffic Impact Mitigation Fees

A Capital Improvement Program (CIP) is a planning document that identifies capital improvement projects (e.g., roads and bridges) a local government or public agency intends to build over a certain time horizon (usually between five and twenty years). The CIP serves as a planning and implementation tool for the development, construction, rehabilitation, and maintenance of the County's infrastructure. Capital improvements are projects that provide tangible long-term improvements or additions of a fixed or permanent nature, have value and can be depreciated. CIPs typically provide key information for each project, including delivery schedule, cost, and revenue sources.

In order to maintain the integrity of the County's roadway network, the County is required to implement General Plan Policy TC-Xb and Implementation Measures TC-A and TC-B. These measures require the development of a 10- and 20-year CIP. These policies also require an update of the 20-year growth forecast every five years. The forecast is needed to update the CIP and Traffic Impact Mitigation Fee (TIM) Fee Program. Forecasting growth is an iterative and ongoing process – forecasts are reviewed and adjusted annually as well as every five years. Routinely verifying and updating growth forecasts allows the County to account for new information and adjust its assumptions and plans accordingly. In addition, the CIP must contain identification of funding sources sufficient to develop the improvements identified. The CIP process includes identifying, prioritizing, and developing funding for needed projects. The CIP includes ongoing projects started in previous years and new projects starting in the current and future fiscal years. The County Board of Supervisors has adopted CIPs on an annual basis, with the most recent CIP adopted in June 2015.

TIM fees are collected at the time of issuance of a building permit for new development. In order to ensure that adequate funding and sufficient revenue is collected to fund CIP projects identified to be required as a result of development and to maintain a level of service consistent with General Plan policies, the TIM program and TIM fees are adjusted and updated on an annual and five-year basis along with the CIP. Through careful monitoring and implementation of the CIP and TIM Fee programs, the County has a high level of certainty that projects in the CIP will be constructed when improvements are needed and can be implemented in their entirety over time, making reliance on the implementation of CIP projects as mitigation for forecasted impacts reasonable. The County considers payment of the TIM fees to satisfy the project's proportionate fair share obligations for the required improvements.

Design and Improvement Standards Manual

Standards for roadway design and related improvements are set forth in the County's Design and Improvement Standards Manual.

3.1.3 IMPACTS AND MITIGATION MEASURES

METHODS OF ANALYSIS

The following describes the assumptions and methods that were used to evaluate project and cumulative impacts.

Project Assumptions

The project proposes two new access points, one each on Green Valley Road and Sophia Parkway (Figure 2.0-2). These encroachments would be right-in and right-out only. The driveway

access on Green Valley Road would be at the east end of the project, where a 135-foot-long deceleration taper would lead to the driveway. The driveway access from Sophia Parkway would be at the south end of the convenience center. The proposed project also includes installation of a raised median on Green Valley Road starting at the east side of the Sophia Parkway intersection and extending east approximately 350 feet and past the driveway access on Green Valley Road. The purpose of the raised median would be to prevent vehicles from turning left onto Green Valley Road from the access driveway on Green Valley Road.

The southeast curb return at Green Valley Road/Sophia Parkway would be modified to facilitate U-turns from westbound Green Valley Road to access the driveway on Green Valley Road. The modification would add U-turn signs and a change to the pedestrian interface button.

Development of the proposed project would attract additional traffic to the project area. The amount of additional traffic on a particular section of the street network would depend upon two factors:

- Trip generation, the number of new trips generated by the project.
- Trip distribution and assignment, the specific routes that the new traffic takes.

Trip Generation

Trip generation is determined by identifying the type and size of land use being developed. Recognized sources of trip generation data may then be used to calculate the total number of trip ends.

The site includes a 16-fueling position gas station with convenience store and a single-lane car wash. The convenience store is about 3,000 square feet. The trip generation of the project was computed using trip generation rates published in *Trip Generation* (Institute of Transportation Engineers [ITE], 9th Edition, 2013) based on the projected uses. For this project, Land Use 946, a gas station with convenience store and car wash was used to establish projected trip generation for the site. Table 3.1-6 presents the daily a.m. peak hour and p.m. peak hour trip generation for the site.

Trips made by fuel trucks and other deliveries would occur throughout the day and are included in the overall site traffic volume forecast. Fuel delivery trucks are expected to make two to three trips to the site each week. These trips typically occur during time periods outside of peak commute hours. Other deliveries, typically merchandise, carried at the convenience store, would occur throughout the week and are typically made by single unit trucks. Delivery trucks are expected to make five to six trips per week.

Automobile trips generated by commercial projects fit into two categories. Some trips will be made by patrons who would not otherwise be on the local street system and who go out of their way to reach the site. These are "new" trips. Other trips will be made by patrons who are already in the roadway network, and are therefore not adding "new" trips to the overall system. "Pass-by" trips would be made by motorists who are already driving by the site as part of another trip and simply interrupt a trip already being made to another destination. Peak hour pass-by trips are common on commuter routes as motorists stop on their way home.

ITE research has suggested typical pass-by percentages for various retail land uses where appreciable background traffic occurs. The share of project trips falling into each category varies over the day. Table 3.1-6 presents the pass-by reductions used in the TIA. Application of

these rates yields a total of 1,369 daily pass-by trips, 117 pass-by a.m. peak hour trips, and 124 pass-by p.m. peak hour trips. After accounting for this traffic, the project is expected to generate 1,076 new daily trips, 72 new a.m. peak hour trips, and 98 new p.m. peak hour trips.

TABLE 3.1-6
PROJECT TRIP GENERATION

Land Use	Amount	Trip Rate					Trips				
		Daily	AM Peak Hour		PM Peak Hour		Daily	AM Peak Hour		PM Peak Hour	
Gas Station with Convenience Store and Car Wash (LU 946)	16 FP	152.84	11.84		13.86		2,445	189		222	
			AM Peak Hour		PM Peak Hour			AM Peak Hour		PM Peak Hour	
			In	Out	In	Out		In	Out	In	Out
Gas Station with Convenience Store and Car Wash (LU 946)			0.51	0.49	0.51	0.49		97	92	113	109
Pass-By Trip Reduction – Gas Station[1]							(1,369)	(60)	(57)	(63)	(61)
Net New Trips[2]							1,076	37	35	50	48

FP is fueling position

[1] Pass-by rates – 56% Daily, 62% AM, 56% PM

[2] Numbers may not match due to rounding

Source: KD Anderson 2015

Trip Distribution and Assignment

The distribution of project traffic was developed based on information derived from the current version of the countywide travel demand forecasting model. The project was added to the model and a "select zone analysis" traced the path of project trips. This trip trace was the basis for the assignment of new trips. The trip distribution assumptions are shown in Table 3.1-7.

As shown by the data in Table 3.1-7, new project trips are expected to be oriented to the west, south, and east in varying percentages, which is illustrated in **Figure 3.1-2**.

The distribution of pass-by trips is shown in Table 3.1-8. As indicated, the directionality of those trips will vary based on the volume of background traffic on each road during different periods of the day.

Fuel delivery trucks are expected to reach the site via eastbound Green Valley Road and turn right via the Green Valley Road entrance. These trucks would exit onto Sophia Parkway and turn left or right onto Green Valley Road.

Figure 3.1-3 presents project-only trips.

TABLE 3.1-7
PROJECT NEW TRIP DISTRIBUTION

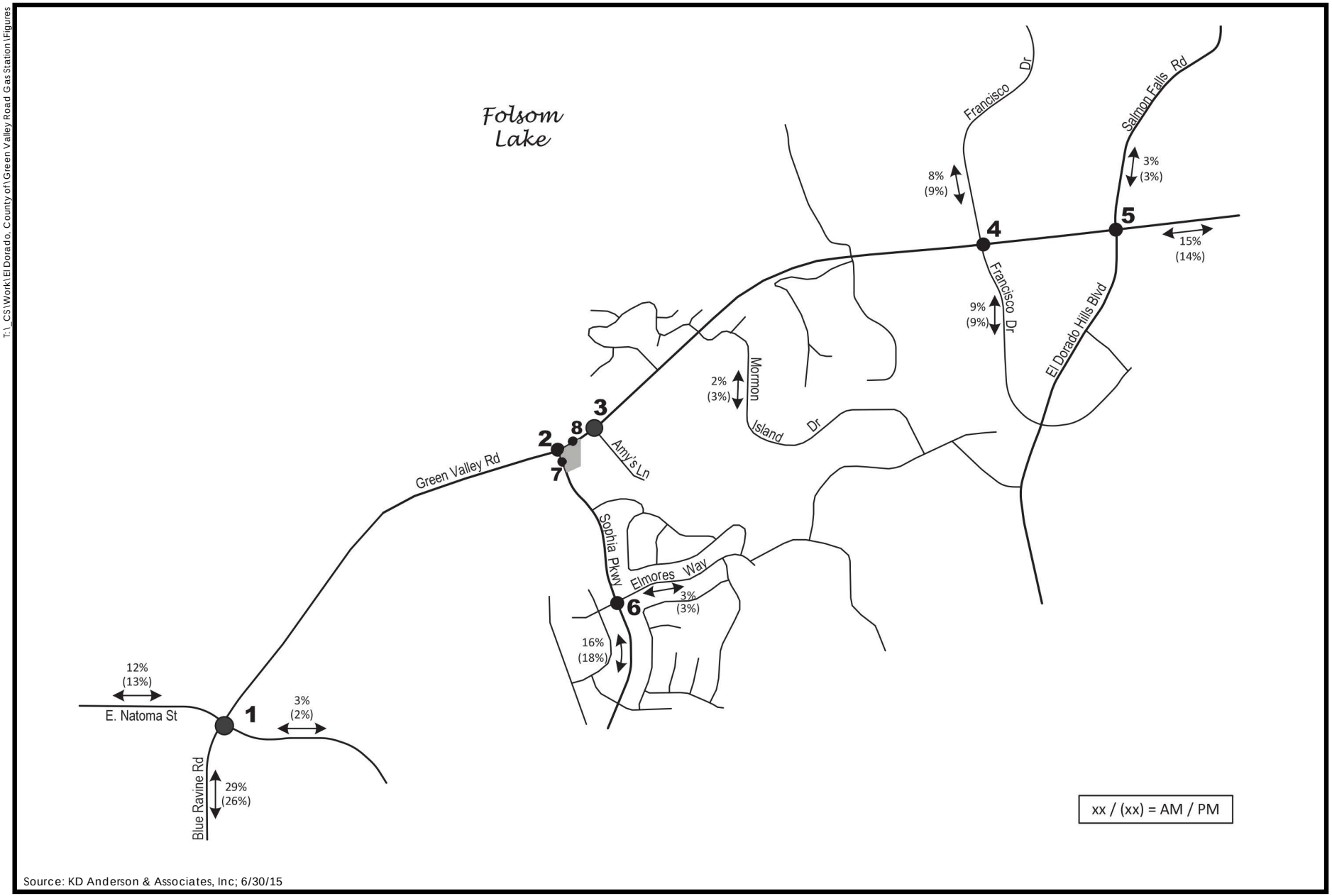
Route	% of Total Trips	
	AM	PM
West on Green Valley Road to / from Folsom		
West on E. Natoma Street	12%	13%
East on E. Natoma Street	3%	2%
South on Blue Ravine Road	29%	26%
South to / from Sophia Parkway		
South on Sophia Parkway	16%	18%
East on Elmores Way	3%	3%
East to / from Green Valley Road		
North on Francisco Blvd	8%	9%
South on Francisco Blvd	9%	9%
North on Salmon Falls Road	3%	3%
East on Green Valley Road	15%	14%
South on Mormon Island Drive	2%	3%
Total	100%	100%

Source: KD Anderson 2015

TABLE 3.1-8
PASS-BY TRIP DISTRIBUTION

Approach - Departure	Percent of Total Trips			
	AM Peak Hour		PM Peak Hour	
	In	Out	In	Out
Northbound Sophia Parkway	9%	-	10%	-
Southbound Sophia Parkway	0	8%	0	10%
Westbound Green Valley Road	65%	64%	37%	35%
Eastbound Green Valley Road	26%	28%	53%	55%
Total	100%	100%	100%	100%

Source: KD Anderson 2015



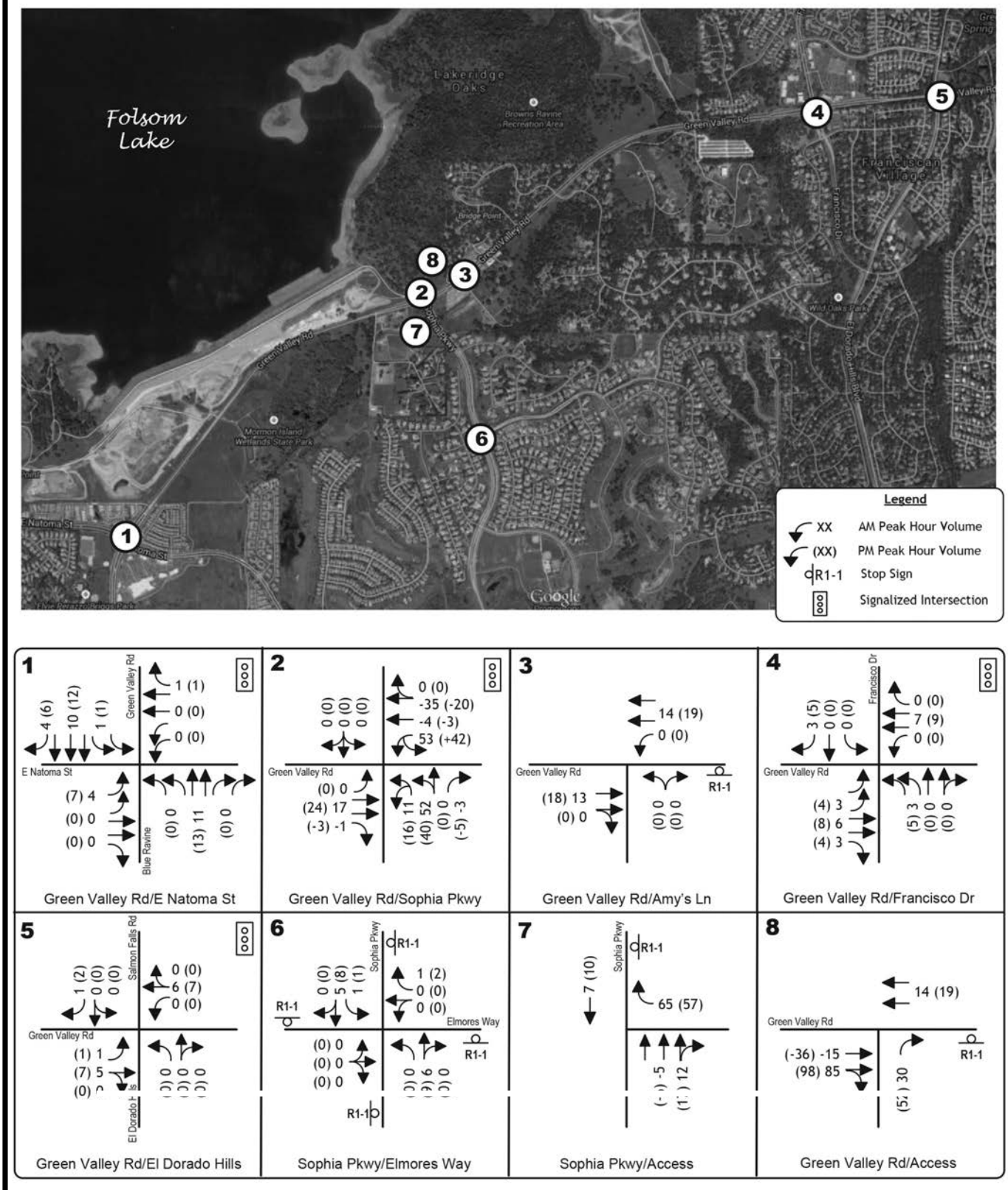
Source: KD Anderson & Associates, Inc; 6/30/15

Not to scale

Figure 3.1-2
Trip Distribution

Michael Baker INTERNATIONAL

T:_CS\Work\El Dorado, County of\Green Valley Road Gas Station\Figures



Source: KD Anderson & Associates, Inc; 6/30/15

Not to scale

Figure 3.1-3
Project Trips

Michael Baker INTERNATIONAL

Intersection Impacts

Existing Plus Project

The impacts of developing and operating the project uses on the site were determined by superimposing project traffic onto existing background conditions. Figure 3.1-1 (Existing Traffic Volumes and Lane Configurations) and Table 3.1-2 (Peak Hour Levels of Service at Intersections [Existing Conditions]), above, present existing conditions information. Traffic volumes and trip distribution were estimated using the methods described above. The 2010 *Highway Capacity Manual* was used as the basis for describing existing LOS conditions and to evaluate project impacts.

Existing Plus Approved Projects (2019)

Growth is expected to occur along Green Valley Road and Sophia Parkway in the next five years. The analysis of the near-term 2019 condition is intended to consider the impact of the proposed project within the context of the Existing Plus Approved Projects (EPAP) conditions by 2019. Under El Dorado County guidelines, two alternative approaches are taken to identify Year 2019 volumes and the approach producing the greater volumes was used in the analysis.

Forecasts Based on Growth Rates. In the first approach, Year 2019 traffic volumes based on growth rates derived from the countywide traffic model were created. Year 2035 forecasts were identified and compared to current volumes to yield annual average growth rates that can be assumed over the short term. Per County guidelines, peak hour roadway segment volumes for 2019 were calculated using straight-line interpolation between current and year 2035 data.

Forecasts Based on Other Approved/Pending Projects. The second approach involved identification of the specific traffic contributions of other approved and pending development proposals and superimposing those trips onto existing volumes. Seven projects in the vicinity were identified by County staff: Wilson Estates, Green Valley Center, Dixon Ranch, Alto, Summer Brook, Silver Springs, and Springs Equestrian Center. Peak-hour turning movement counts for 2019 were calculated under a worst-case approach for these seven projects.

The traffic contribution for each of these projects was identified from its traffic study, and summed and added to current background volumes to create EPAP volumes. The resulting year 2019 volumes created by growth rates were compared to the EPAP volumes to identify the greater forecast at each intersection. The EPAP volume projections govern at all locations.

Lane Configurations. The configuration of study area streets and intersections will remain as they exist today along Green Valley Road except for the two-lane portion of Green Valley Road west of Sophia Parkway to the East Natoma Street/Blue Ravine Road intersection in Folsom. The City of Folsom will be widening the road to a four-lane roadway, and this work will connect to the existing four-lane section in El Dorado County just west of Sophia Parkway. This widening project is scheduled to be ready for construction in fiscal year 2016/2017.

In addition, the County is currently processing a project to modify the striping of the southbound approach of the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection to provide a dedicated right-turn lane and modify the signal timing to standard eight-phase operation (Green Valley Road Traffic Signal Interconnect, CIP project 73151). The existing dedicated left-turn lanes would be unchanged. This improvement, which is in the five-year CIP, is expected to be completed by 2019.

EPAP Intersection Levels of Service. **Figure 3.1-4** displays the EPAP traffic volumes for each study intersection without the proposed project. Table 3.1-11 (included in Impact TRA-2) displays the a.m. and p.m. peak hour LOS at each study intersection in the EPAP conditions. Without the proposed project, five of the intersections will operate within County and City of Folsom minimum LOS thresholds, operating at LOS E or better. The Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection will decline to an LOS F condition in the a.m. peak hour. This LOS will exceed the El Dorado County LOS E minimum. Improvements to the intersection are part of the County's CIP projects GP 178 and GP 159, which will widen Green Valley Road to a four-lane roadway with left-turn lanes. The County has identified the construction of these projects between fiscal year 2024/25 and fiscal year 2033/34.

Cumulative Plus Project Impacts

The analysis of the long-term cumulative impact analysis is intended to consider the impact of this project within the context of conditions occurring under the El Dorado County General Plan in Year 2035.

Basis for Forecasts - Regional Traffic Growth. The recently updated countywide regional travel demand forecasting model was used as the basis for developing future volumes forecasts in the study area. As directed by staff, the model's land use set was updated by adding projects such as Dixon Ranch that were not included in the County's previous traffic model. Regional circulation system improvements are also included, including two new interchanges that will be completed to provide additional access to US 50: the US 50/Silva Valley Parkway interchange that is currently under construction and the US 50/Empire Ranch Road interchange in the City of Folsom. With the development of regional circulation system improvements, the forecasting model suggests that traffic volumes in this area could be expected to increase moderately in the future.

The approach identified under El Dorado County traffic study guidelines was used to create turning-movement forecasts at study intersections. Adjusted future and baseline model volumes were compared and used to create approach growth rates for each intersection. The rates were applied to current a.m. and p.m. peak hour turning movements, and the results were balanced using the techniques contained in the Transportation Research Board's National Cooperative Highway Research Program (NCHRP) Report 255, *Highway Traffic Data for Urbanized Area Project Planning and Design*. The NCHRP 255 method applies the individual growth rates to the intersection turning movement volumes and uses an iterative process to balance and adjust the resulting forecasts to match total inbound and outbound flows.

Year 2035 Lane Configurations. The cumulative analysis assumes local improvements. Green Valley Road between Francisco Drive and Deer Valley Road is identified to be widened from two to four lanes by 2035. Intersection configurations in the widened segment are assumed to include a left-turn lane, a through lane, and a through-right lane. As noted earlier, Green Valley Road in the City of Folsom will also be widened to a four-lane roadway.

Year 2035 Intersection Levels of Service. **Figure 3.1-5** displays the cumulative traffic volumes with lane configurations for each study intersection. Table 3.1-17 (included in Impact TRA-12) displays the a.m. and p.m. peak hour LOS for Year 2035 conditions with and without the project. The five study intersections will operate within County LOS thresholds while the Green Valley Road-Blue Ravine Road / E. Natoma Street intersection in the City of Folsom will decline to LOS D in the a.m. peak hour and LOS E in the p.m. peak hour.

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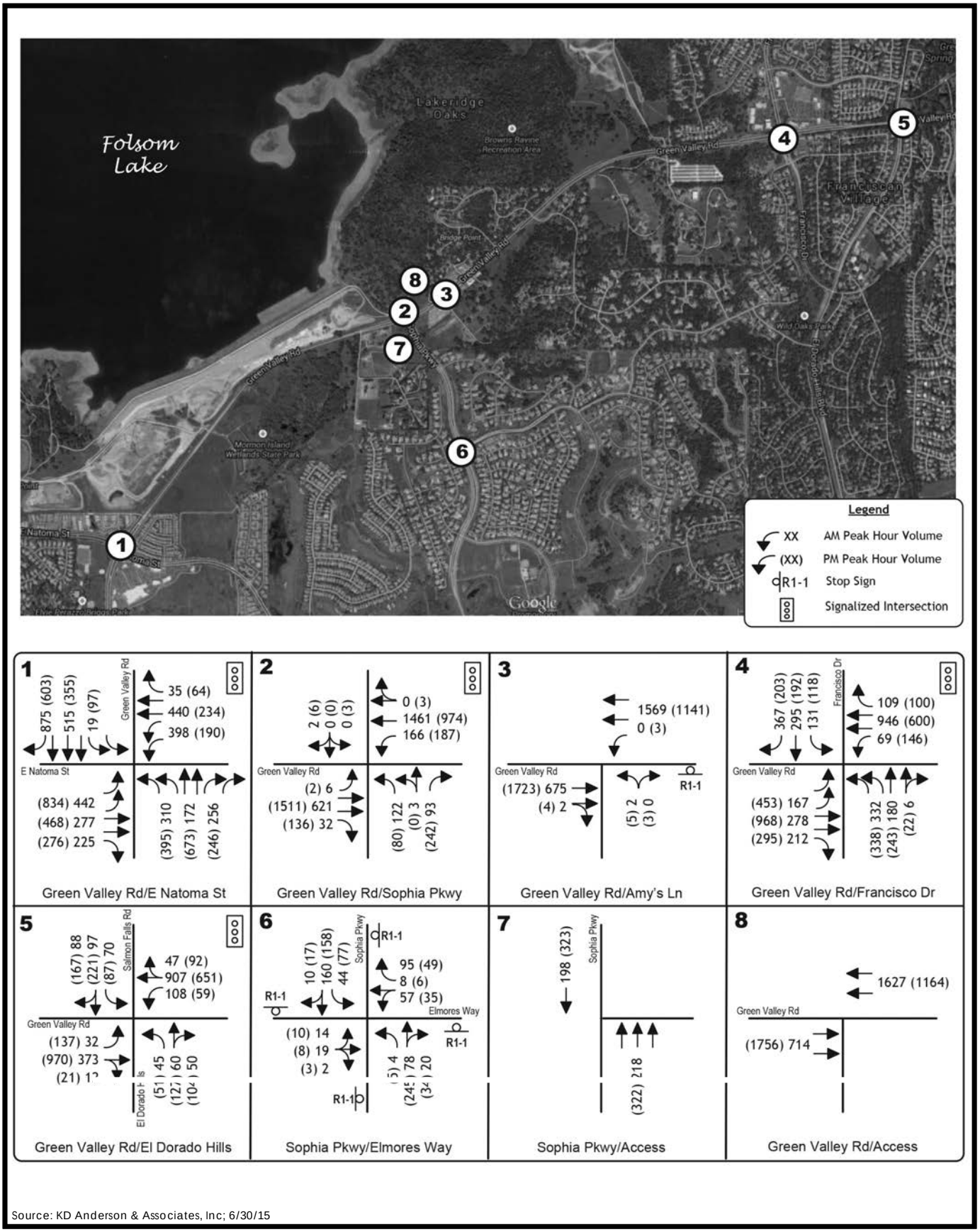

Source: KD Anderson & Associates, Inc; 6/30/15

Not to scale

Figure 3.1-4

Existing Plus Approved Projects (2019) Traffic Volumes and Lane Configurations

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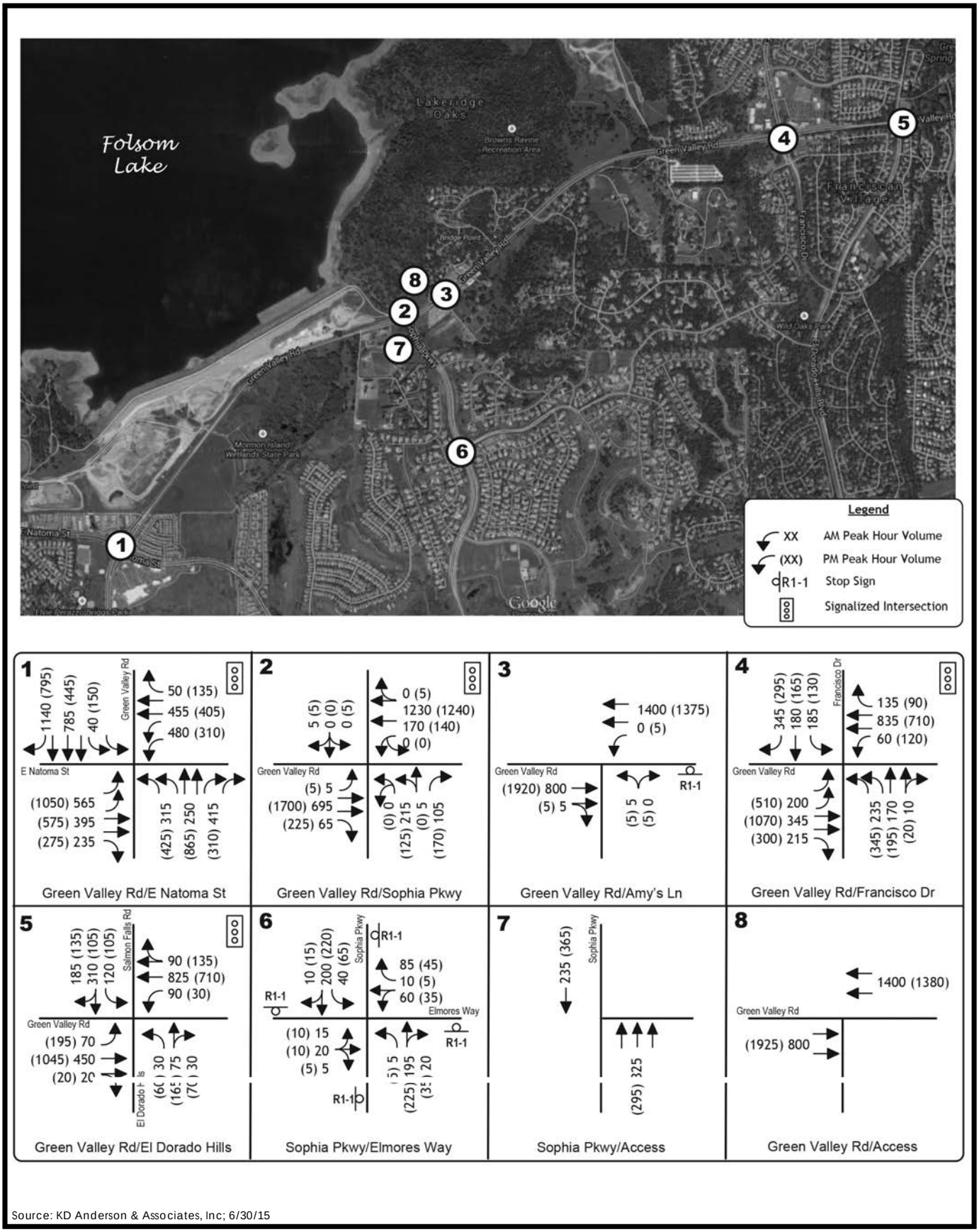

Source: KD Anderson & Associates, Inc; 6/30/15

Not to scale

Figure 3.1-5

Cumulative (2035) No Project Traffic Volumes and Lane Configurations

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Queuing Impacts

Synchro-SimTraffic software was used to determine 95th percentile queue lengths at the two study locations requiring evaluation under Existing Plus Project, EPAP Plus Project, and Cumulative Plus Project conditions (Green Valley Road/Sophia Parkway intersection and Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road left-turn lane).

Roadway Segments

Roadway segment LOS was determined using the methodology for multi-lane highways and two-lane highways outlined in the 2010 *Highway Capacity Manual*, Chapters 14 and 15. Tables 2 and 3 in the TIA (included in Appendix C of this Draft EIR) identify segment LOS criteria for multi-lane and two-lane highways, respectively. For multi-lane highways, the calculation of the density of the traffic stream determines level of service. Density measures the proximity of vehicles to each other in the traffic stream. For two-lane highways, the level of service calculation depends on the class of the roadway. The LOS is determined based on the percent time spent following (PTSF). This measure is calculated as the percentage of vehicles traveling at headways of less than 3 seconds. Roadway segment LOS was determined by comparing traffic volumes for selected roadway segments with peak hour LOS capacity thresholds.

Design Hazards

The adequacy of the site access design was evaluated within the context of three factors: sight distance, vehicle throat depth, and relationship to through-traffic. Methods used to evaluate each factor are described below.

Sight Distance

A sight distance analysis was completed at each project driveway to determine whether adequate sight distance will be present with the project completed. Available sight distance was evaluated using the standards documented in the HDM. The most significant evaluation parameter is the availability of stopping sight distance (SSD). This criterion is documented in Table 201.1 of the HDM and suggests the minimum sight distance that must be available for a motorist to perceive a hazard in the road and come to a stop. This criterion was used to evaluate the project driveways. The posted speed along Green Valley Road and Sophia Parkway is 50 mph. The corresponding minimum sight distance standard for this speed is 430 feet. However, for vehicles traveling northbound on Sophia Parkway, vehicles would have to slow to 20-25 mph prior to reaching the right turn to eastbound Green Valley Road. The corresponding minimum sight distance is 150 feet.

Vehicle Throat Depth

Adequately designed driveways provide space for entering motorists to maneuver so they do not need to stop to wait for an exiting vehicle to move. This on-site area is called the driveway "throat." An inadequate throat could result in vehicles stopping in the entrance and thereby creating a queue that extends back into travel lanes. The available throat depth at each driveway was identified. The adequacy of throat depth is determined based on the length of the waiting queue anticipated 95% of the time. Under standard queue theory, the 95th percentile queue is estimated based on the relationship between average vehicular demand and approach capacity and is a byproduct of the intersection LOS analysis.

Relationship to Through-Traffic

Motorists entering and exiting the site will slow to enter the project's driveways. The relationship between vehicles entering the site and through-traffic was evaluated based on Caltrans HDM standards for deceleration, the distance traveled while decelerating, and the difference between the speed of through and turning motorists at the point they begin to leave the through-travel lane.

The HDM describes the area available for a vehicle to slow as the deceleration lane length. The HDM notes that the design speed of the roadway approaching the intersection should be the basis for determining deceleration lane length and that it is desirable that deceleration take place out of the through traffic lanes. HDM deceleration guidelines assume that a turning motorist will come to a complete stop. This is the case for design of right-turn lanes at intersections. This represents a "worst case" condition for commercial driveways. Most vehicles would be able to turn into a driveway at a speed of 10 to 15 mph (i.e., the turn can be made without stopping). Thus, the actual distance required to slow a vehicle and turn into the driveway is less than the HDM deceleration lane length.

Specific deceleration lane lengths are established in Table HDM 405.2B, and a transition area/bay taper length is included in that length. The HDM 405.2B deceleration lane lengths are listed in Table 3.1-9. Based on the deceleration lane lengths for design speeds contained in HDM Table 405.2B (Table 3.1-9) and assuming a standard deceleration rate (10 feet/second squared [sec^2]), a vehicle traveling at 55 mph would take 315 feet to slow to 10 mph. However, the HDM notes that where partial deceleration is permitted on the through lanes, design speeds in Table 405.2B may be reduced 10 miles per hour to 20 miles per hour for a lower entry speed.

El Dorado County staff considered available information regarding the travel speed on Green Valley Road to identify an applicable design entry speed. While the posted speed limit is 50 mph, speed surveys note that the 85th percentile speed is 55 mph. Few arriving vehicles would actually stop on Green Valley Road, and a right turn into the project driveway can be made at 10 to 15 mph. After discounting 20 mph for deceleration in the through lanes, a 35 mph entry design speed would be applicable to the proposed project. A 35 mph design would require 275 feet to come to a stop.

TABLE 3.1-9
HDM DECELERATION LANE LENGTH

Deceleration Lane Length	
Design Speed (mph)	**Length to Stop (feet)**
30	235
40	315
50	435
60	530

Source : Caltrans Highway Design Manual Table 405.2B, as reported in Traffic Impact Analysis for Green Valley Rd. ARCO AM/PM Site, KD Anderson & Associates, 2015.

The analysis also assumes project traffic entering at the Green Valley Road driveway would be split between vehicles arriving on westbound Green Valley Road from east of Sophia Parkway and making a U-turn, and vehicles arriving on eastbound Green Valley Road. During the p.m.

peak hour, 42 of the 98 vehicles (or 43%) expected to enter would be making U-turns from westbound Green Valley Road.

Significance Thresholds

The standards of significance are used to determine if the impact of the proposed project, when evaluated against the environmental setting, could result in a significant environmental impact. The standards of significance are specific to each type of impact. The standards of significance are intended to provide a "bright line" of demarcation (i.e., clear distinction) between a less than significant impact and a significant impact.

The analysis of traffic and transportation systems impacts in this Draft EIR addresses the CEQA Guidelines Appendix G list of transportation/traffic impacts, which are listed below. The threshold of significance used to determine whether an impact would be significant for each of these impact topics is described immediately following each item.

- Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

  Intersection Operations Impacts

  El Dorado County Criteria. The County uses the concept of level of service (LOS) for evaluating intersection impacts. El Dorado County identifies LOS E as the acceptable LOS on roadways and state highways within the unincorporated areas of the county in the Community Regions and LOS D in the Rural Centers and Rural Regions except as specified in the General Plan. All study intersections are located within the Community Region; therefore, LOS E is the minimum acceptable LOS. The 2010 Highway Capacity Manual was used to provide a basis for describing existing traffic conditions and for evaluating project traffic impacts.

  An impact is considered significant if the project causes an intersection to change from LOS E to LOS F or worsens the traffic operations of an intersection already operating at LOS F. The County's General Plan Policy TC-Xe defines "worsen" as any of the following conditions:

  - 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.

  City of Folsom Criteria. As noted in the Introduction, above, one intersection in the City of Folsom was included in the analysis as required by the Settlement Agreement (Green Valley Road/Blue Ravine Road/E. Natoma Street). The City of Folsom identifies LOS C as the acceptable LOS on roadways in Folsom, and normally has a maximum accepted intersection geometry of dual left lanes, three through lanes, and a free right lane on any given approach. An impact is considered significant if the project causes a signalized intersection to deteriorate from an acceptable LOS to an unacceptable LOS. If an

intersection is operating at an unacceptable LOS without the project, a project is not considered to have a significant impact if the increase in delay is 5 seconds or less or the increase in the volume to capacity ratio is 0.05.

Queuing Impacts

As noted in the Existing Conditions under the "Queuing" subheading, El Dorado County guideline is to evaluate queuing impacts at study intersections where queue spillback is anticipated. The following two intersections were evaluated: Green Valley Road/Sophia Parkway intersection (Intersection 2), where the proposed project would add more than 10 turns in both the northbound and westbound left-turn lanes; and Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection (Intersection 5), where the eastbound left-turn lane is 85 feet long.

A queuing impact is considered significant if the simulated 95th percentile queue length with the proposed project would cause available storage to be exceeded. If the net increase attributable to the project is less than a car length (i.e., less than 25 feet [industry standard]), the contribution would not be significant.

Roadway Segment Impacts

El Dorado County identifies LOS E as the acceptable LOS on roadways within the unincorporated county in Community Regions, as noted above under the "Intersections" subheading. The City of Folsom does not use a methodology to evaluate roadway segments.

A roadway segment impact is considered significant if the project causes a roadway segment to change from LOS E to LOS F.

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

  As described above, the adequacy of the site access driveway design was evaluated within the context of three factors: sight distance, vehicle throat depth, and relationship to through-traffic.

  Sight Distance. The impact is considered significant if the sight distance would not meet the minimum HDM standard for stopping sight distance (SSD). For the proposed Green Valley Road driveway, the SSD is 430 feet. For the proposed Sophia Parkway, the SSD is 150 feet.

  Throat Depth. The impact is considered significant if the proposed project would result in vehicles stopping in the driveway entrance and creating a queue that extends back into travel lanes as a result of inadequate throat distance.

  Relationship to Through-Traffic. The impact is considered significant if the proposed project would not meet HDM Table 405.2B deceleration lane length standards, as modified for site-specific conditions consistent with the HDM. For the proposed Green Valley Road driveway, the calculated distance is 275 feet.

Design hazard impacts would be significant if the proposed project would not provide sufficient ingress/egress to accommodate long vehicles such as fuel trucks, large recreational vehicles, or boat trailers during project operation.

- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

  The impact is considered significant if operation of the proposed project would: substantially increase the demand for transit, bicycle, or pedestrian facilities, the construction and operation of which could result in environmental impacts; or increase the risk for vehicular and pedestrian/bicycle conflicts due to inadequate driveway access design, vehicle speeds, or sight distance.

- Result in inadequate emergency vehicle access.

  The impact is considered significant if project design would eliminate or substantially limit the ability of emergency vehicles to permanently access the site, adjacent properties, or use local roadways, or result in temporary traffic conditions on roadways adjacent to the site during construction that could affect emergency response times.

PROJECT IMPACTS

Intersection Operations – Existing Plus Project

Impact TRA-1 The addition of project traffic to existing conditions would not result in a decline in service at the study area intersections. **(Less than Significant)**

The proposed project would generate 1,076 new daily trips, 72 new a.m. peak hour trips, and 98 new p.m. peak hour trips. The impacts of operating the project uses on the site were evaluated by superimposing project traffic onto background conditions. Resulting intersection LOS were then calculated and used as the basis for evaluating potential project impacts. **Figure 3.1-6** displays the Existing Plus Project condition for each study intersection in both a.m. and p.m. peak hours. Table 3.1-10 identifies the peak hour LOS at each study intersection comparing the existing LOS with the LOS occurring with the proposed project.

The LOS would change at only one intersection (Intersection 2: Green Valley Road/Sophia Parkway), where it would change from LOS B to LOS C in the a.m. peak hour. This change would be a less than significant impact because it meets the County's LOS E or better criterion. The Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road (Intersection 5) would continue to operate at LOS E, which meets County standards. The average delays at the other existing study intersections would increase slightly, but all intersections would continue to operate within the minimum El Dorado County and City of Folsom thresholds (i.e., LOS E or better within the County and LOS C or better within Folsom).

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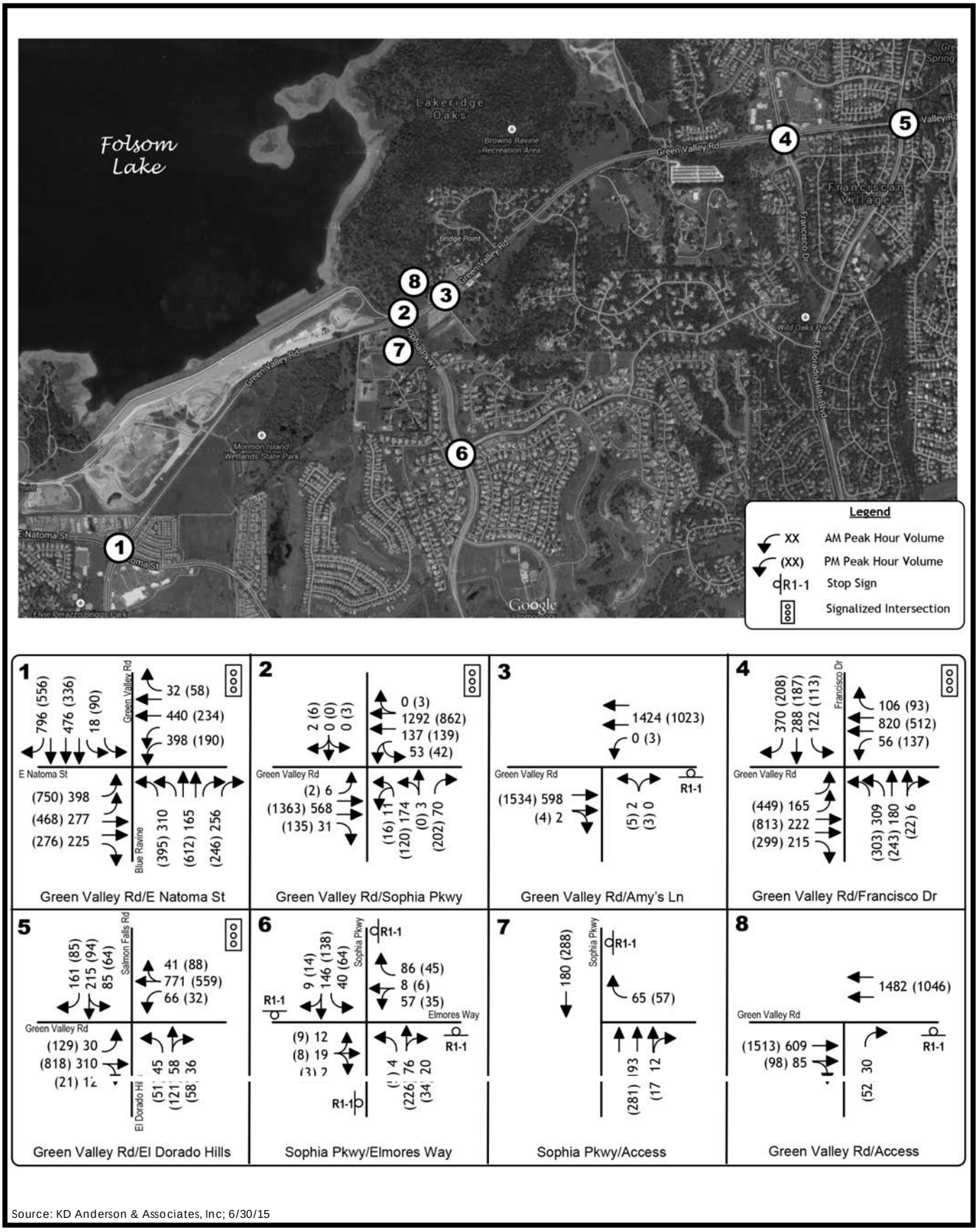

Source: KD Anderson & Associates, Inc; 6/30/15

Not to scale

Figure 3.1-6
Existing Plus Project Traffic Volumes and Lane Configurations

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TABLE 3.1-10
PEAK HOUR INTERSECTION LEVELS OF SERVICE
EXISTING PLUS PROJECT

Location	Control	Existing				Existing Plus Project				
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Traffic Signal Warranted?
		LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	
1. Green Valley Rd / Blue Ravine Rd / E. Natoma St	Signal	C	28.3	C	32.1	C	28.0	C	32.6	**
2. Green Valley Rd / Sophia Parkway	Signal	B	16.5	C	22.8	C	25.6	C	29.3	**
3. Green Valley Rd / Amy's Lane	NB Stop									
Northbound approach		C	18.7	D	30.7	C	19.0	D	31.4	
Westbound left turn		---	---	B	14.4	---	---	B	14.6	No
4. Green Valley Rd / Francisco Dr	Signal	D	45.1	D	40.3	D	45.6	D	40.8	**
5. Green Valley Rd / El Dorado Hills Blvd – Salmon Falls Rd	Signal	E	66.2	E	57.4	E	67.8	E	59.0	**
6. Sophia Parkway / Elmores Way	AWS	A	8.9	A	9.8	A	9.0	A	9.9	No
7. Sophia Parkway / Gas Station Access	WB Stop									
Westbound right turn		N/A	N/A	N/A	N/A	B	10.3	B	10.4	No
8. Green Valley Rd / Gas Station Access	NB Stop									
Northbound right turn		N/A	N/A	N/A	N/A	B	10.7	C	18.8	No

AWS – all way stop

*** - intersection already has a signal*

N/A – not applicable (the driveway access does not exist under existing conditions)

Source: KD Anderson 2015

The LOS for motorists waiting to exit the site via the two right-in, right-out driveways on Green Valley Road (Intersection 7) and Sophia Parkway (Intersection 8) was also calculated. (Because these driveways are not present under existing conditions, only the resulting LOS and delay with the project are shown in Table 3.1-10). The volume of traffic anticipated at each driveway would be relatively low. During the a.m. and p.m. peak hours, the Sophia Parkway access (Intersection 7) would operate at LOS B, and the Green Valley Road access would operate at LOS C or better.

Because neither El Dorado County nor City of Folsom LOS criteria would be exceeded at any study area intersection, all study area intersection impacts would be less than significant.

Mitigation Measure

None required.

Intersection Operations – Existing Plus Approved Projects Plus Project (Year 2019)

Impact TRA-2 The addition of project traffic at the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection would worsen LOS F conditions under Existing Plus Approved Projects (2019) conditions. **(Significant)**

Figure 3.1-7 shows the Existing Plus Approved Projects (2019) Plus Project traffic volumes and lane configurations at each study intersection. Table 3.1-11 displays the a.m. and p.m. peak hour LOS at each study intersection in this scenario.

TABLE 3.1-11
AM / PM PEAK HOUR INTERSECTION LEVELS OF SERVICE
EXISTING PLUS APPROVED PROJECTS (2019) PLUS PROJECT

Location	Control	Existing Plus Approved Projects (2019)				Existing Plus Approved Projects (2019) Plus Project				
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Traffic Signal Warranted?
		LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	
1. Green Valley Rd / Blue Ravine Rd / E. Natoma St	Signal	C	29.3	D	35.6	C	29.6	D	36.3	**
2. Green Valley Rd / Sophia Parkway	Signal	C	23.1	D	36.6	C	34.6	D	48.0	**
3. Green Valley Rd / Amy's Lane	NB Stop									
NB approach		C	20.8	E	38.8	C	21.1	E	39.5	
WB Left turn		—	—	C	16.5	—	—	C	16.7	No
4. Green Valley Rd / Francisco Dr	Signal	D	46.9	D	42.0	D	47.9	D	42.5	**
5. Green Valley Rd / El Dorado Hills Blvd – Salmon Falls Rd	Signal	**F**	**85.6**	E	67.2	**F**	**87.1**	E	68.5	**
6. Sophia Parkway / Elmores Way	AWS	A	9.1	B	10.3	A	9.2	B	10.5	No
7. Sophia Parkway / Gas Station Access	WB Stop									
Westbound right turn		N/A	N/A	N/A	N/A	B	10.4	B	10.6	No
8. Green Valley Rd / Gas Station Access	NB Stop									
Northbound right turn		N/A	N/A	N/A	N/A	B	11.1	C	22.1	No

AWS – all way stop

*** - intersection already has a signal*

N/A – not applicable (driveways do not exist without the project)

***Bold** indicates minimum LOS threshold is exceeded. **Highlighted** values are a significant impact.*

Source: KD Anderson 2015

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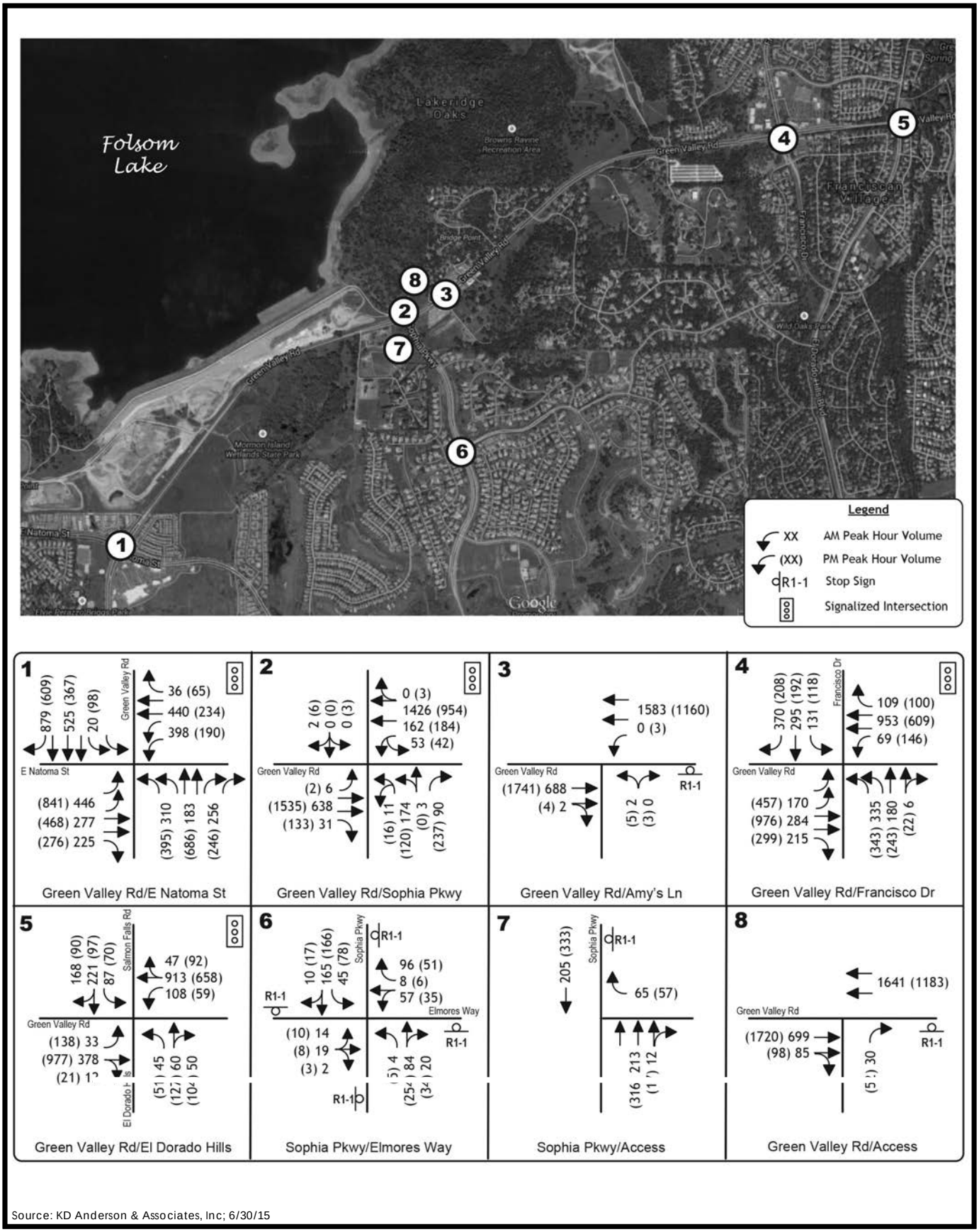

Source: KD Anderson & Associates, Inc; 6/30/15

Not to scale

Figure 3.1-7

Existing Plus Approved Projects (2019) Plus Project Traffic Volumes and Lane Configurations

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The same five study intersections that operated within minimum standards without the project would remain within minimum standards with the proposed project (Intersections 1, 2, 3, 4, and 6). The two project access intersections (Intersections 7 and 8) would operate at acceptable LOS that meets minimum County standards.

The Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection (Intersection 5) would operate at an LOS F condition in the a.m. peak hour under Year 2019 conditions without the project. The proposed project would add 13 trips to this intersection during the a.m. peak hour and 17 trips during the p.m. peak hour. Because the number of trips added during the a.m. peak hour and the p.m. peak hour would exceed the 10 trip per hour threshold under General Plan Policy TC-Xe(C) and therefore worsen conditions, this would be a significant impact.

As noted above, the County is currently processing a project to modify the striping of the southbound approach of the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection to provide a dedicated right-turn lane and modify the signal timing to standard eight-phase operation (Green Valley Road Traffic Signal Interconnect, CIP project 73151). The existing dedicated left-turn lanes would be unchanged. This improvement, which is in the five-year CIP, is expected to be completed by 2019. In addition, the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection is part of the County's CIP projects GP 178 and GP 159, which will widen Green Valley Road to a four-lane roadway with left-turn lanes. The County has identified construction of these projects between fiscal year 2024/25 and fiscal year 2033/2034.

General Plan Policy TC-Xf requires that if a non-residential project worsens traffic on the County road system, the County must: (1) condition the project to construct the road improvement, or (2) ensure the road improvement is included in the County's 20-year CIP. As noted above, the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection is in the 20-year CIP. Mitigation Measure MM TRA-2 requires the proposed project to pay traffic impact mitigation (TIM) fees toward intersection improvements. Under General Plan Policy TC-X.a.3, the County considers payment of TIM fees adequate mitigation that fully offsets and mitigates direct traffic impacts. Implementation of MM TRA-2 would reduce the impact to a less than significant level.

Mitigation Measure

MM TRA-2 The applicant shall pay applicable TIM fees at the time of building permit issuance.

Timing/Implementation: Prior to issuance of building permit.

Enforcement/Monitoring: County of El Dorado Community Development Agency Planning Division

Queuing – Existing Plus Project

Impact TRA-3 The proposed project would add vehicles to the Green Valley Road/Sophia Parkway westbound left-turn lane and the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection eastbound left-turn lane that would exceed available queue lengths. **(Significant)**

Table 3.1-12 presents the simulated queuing results for the Green Valley Road/Sophia Parkway intersection and Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection. As

shown, the 95th percentile queue at two intersections would exceed the available queue storage length).

TABLE 3.1-12
PROJECTED 95TH PERCENTILE QUEUES (EXISTING PLUS PROJECT)

Location	Lane Length (feet)	95th Percentile Queue (feet)			
		Existing		Existing Plus Project	
		AM	PM	AM	PM
2.Green Valley Rd / Sophia Parkway					
Eastbound Green Valley through lanes	-	137	288*	147	292
Westbound left-turn lane	230	**356**	**293**	**387**	**399**
Northbound left-turn lanes	200	117	89	78	75
5.Green Valley Rd / El Dorado Hills Blvd / Salmon Falls Road					
Eastbound left-turn lane	85	**96**	**219**	**101**	**221**

** observed queue length of 225'±*

***Bold** indicates turn lane length exceeded.*

Length indicated is worst-case for multiple lane movements.

Source: KD Anderson 2015

Green Valley Road/Sophia Parkway

Green Valley Road Eastbound Through Lanes. The proposed project is projected to lengthen the stopped queue on the eastbound Green Valley Road through-approach to the Sophia Parkway intersection. The queues resulting from the proposed project would add 10 feet to a.m. peak hour queues and increase the p.m. peak hour queue by 4 feet. In this instance, there is no lane length for comparison because it is a through-approach (i.e., there are no dedicated turn lanes), and this additional queuing is not significant under County guidelines.

Sophia Parkway Northbound Left-Turn Lanes. The proposed project would slightly lengthen the queue at the left-turn lanes from Sophia Parkway to westbound Green Valley Road, but the lengths would be well under the existing 200-foot lane length. Impacts would be less than significant.

Green Valley Road Westbound Left-Turn Lane. As part of the proposed project, a raised median 350 feet long on Green Valley Road along the project frontage would be installed that would extend beyond the project driveway. This would prevent left-turning movements into and out of the project site.

As shown in Table 3.1-12, the existing queue in the a.m. peak hour exceeds the striped lane length of 230 feet without the project. The addition of project traffic would increase the queue length in the westbound left-turn lane in the a.m. peak hour from 356 feet to 387 feet, and in the p.m. peak hour it would increase from 293 to 399 feet, assuming existing traffic signal operation. This is a significant impact because the a.m. and p.m. peak hour queues would exceed the existing protected left-turn lane length of 230 feet.

Implementation of the following mitigation measure requires that traffic signal timing be adjusted with County Transportation Division oversight at the Green Valley Road/Sophia

Parkway intersection to provide a longer green phase for the westbound left-turn. It also requires that the protected left-turn lane be restriped to lengthen it to 350 feet to coincide with the length of the raised median that would be installed as part of the proposed project. The change in signal timing would result in a reduction of the left-turn lane queue to 250 feet in the a.m. peak hour (existing condition) and 203 feet in the p.m. peak hour, and there would be sufficient storage in the restriped left-turn lane to accommodate the queues. This would reduce the impact to a less than significant level.

Mitigation Measure

MM TRA-3 The applicant shall prepare and implement a signal timing plan for the Green Valley Road/Sophia Parkway intersection to provide a longer green phase for the westbound left-turn movement. The plan shall be prepared by a California-licensed civil engineer or traffic engineer and shall be submitted to the County Transportation Division. The applicant shall also restripe the protected left-turn pocket on westbound Green Valley Road to extend the length to 350 feet to coincide with the length of the raised median. The applicant shall ensure the signal timing is adjusted and restriping is completed in coordination with the County Transportation Division prior to the issuance of the occupancy permit.

Timing/Implementation: Prior to issuance of occupancy permit.

Enforcement/Monitoring: County of El Dorado Transportation Division

Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road

As shown in Table 3.1-12, the 95th percentile queue at eastbound left-turn lane at the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection already exceeds the available storage (85 feet) in both the a.m. and p.m. peak hours. The simulation analysis indicates that the queues generated by the proposed project in the a.m. peak period would decrease by 10 feet, and p.m. peak period would increase only slightly (5 feet), which would be about the same as currently experienced, approximately 221 feet.[4] Because available storage would continue to be exceeded and the project would add to this exceedence in the p.m. peak period, this is a significant impact.

The existing 85-foot eastbound left-turn lane at the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road is inadequate to service left turns and is considered an existing deficiency. As described above, the County is currently processing a project to modify the striping of the southbound approach of the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection to provide a dedicated right-turn lane and modify the signal timing to standard eight-phase operation (Green Valley Road Traffic Signal Interconnect, CIP project 73151). The existing dedicated left-turn lanes would be unchanged. This improvement, which is in the five-year CIP, is expected to be completed by 2019. In addition, the Green Valley Road/El Dorado Hills-Salmon Falls Road intersection is part of the County's CIP projects GP 178 and GP 159, which will widen Green Valley Road to a four-lane roadway with left-turn lanes. The County has

[4] The predicted decrease in queue length is a function of the simulation model, not a direct physical result of the project itself. The model is a statistical model, and the simulations are run numerous times. As a result, the predicted vehicle queue lengths vary with each simulation, just as they would vary each day at the intersection. The analysis is based on the average of multiple simulation runs. As such, slight variations (including a predicted decrease) are to be expected.

identified construction of these projects between fiscal year 2024/2025 and fiscal year 2033/2034.

Implementation of mitigation measure TRA-2, identified above, requires the applicant to pay applicable TIM fees. Under General Plan Policy TC-X.a.3, the County considers payment of TIM fees adequate mitigation that fully offsets and mitigates direct traffic impacts. Implementation of MM TRA-2 would reduce the impact at the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection to a less than significant level.

Mitigation Measure

Implement Mitigation Measure MM TRA-2 (applicant shall pay TIM fees).

Queuing – Existing Plus Approved Projects (2019) Plus Project

Impact TRA-4 The proposed project would add vehicles to the Green Valley Road/Sophia Parkway westbound left-turn lane that would exceed available queue lengths under Existing plus Approved Projects (2019) conditions. **(Significant)**

Table 3.1-13 presents the simulated queuing results. As shown, the 95th percentile queue at two intersections would exceed the available queue length at Intersection 2: Green Valley Road/Sophia Parkway.

TABLE 3.1-13
PROJECTED 95TH PERCENTILE QUEUES (EXISTING PLUS APPROVED PROJECTS (2019) PLUS PROJECT)

Location	Lane Length (feet)	95th Percentile Queue (feet)			
		Existing Plus Approved Projects (2019)		Existing Plus Approved Projects (2019) Plus Project	
		AM	PM	AM	PM
2.Green Valley Rd / Sophia Parkway					
Eastbound Green Valley through lanes	-	153	287	178	283
Westbound left-turn lane	230	**357**	**339**	**655**	**666**
Northbound left-turn lanes	200	126	91	104	92
5.Green Valley Rd / El Dorado Hills Blvd / Salmon Fall Road					
Eastbound left-turn lane	85	**131**	**204**	**128**	**211**

Bold *indicates turn lane length exceeded.*
Length indicated is worst-case for multiple lane movements.

Green Valley Road Eastbound Through Lanes

At the eastbound through lanes at the Green Valley Road/Sophia Parkway intersection, the queues resulting from the proposed project are projected to add 25 feet to a.m. peak hour queues and decrease the p.m. peak hour queue by 4 feet. As described in Impact TRA-3, there is not an applicable lane length. Impacts would be less than significant.

The planned widening of Green Valley Road in the area from East Natoma Street to Sophia Parkway will have an effect on the flow of traffic during commute hours. The bottleneck that is created by the lane drop east of E. Natoma Street will be eliminated, and eastbound vehicles will be able to maintain travel speed from Folsom to the Sophia Parkway intersection. Because the distance is relatively long, some dissipation of the platoons created at the E. Natoma Street / Blue Ravine Road intersection will occur and the rolling queues that are present today will be reduced or eliminated.

Sophia Parkway Northbound Left-Turn Lanes

The proposed project would slightly lengthen the queue at the left-turn lanes from Sophia Parkway to westbound Green Valley Road, but the lengths would be well under the existing 200-foot lane length. Impacts would be less than significant.

Green Valley Road Westbound Left-Turn Lane

As shown in Table 3.1-13, under existing plus approved projects (2019) conditions, the queue in the a.m. peak hour exceeds the striped lane length of 230 feet without the project. The addition of project traffic would increase the queue length in the westbound left-turn lane in the a.m. peak hour from 357 feet 655 feet, and in the p.m. peak hour it would increase from 339 to 666 feet, assuming existing traffic signal operation. This is a significant impact because it would exceed the existing protected left-turn lane length of 230 feet.

Mitigation Measure MM TRA-3, identified in Impact TRA-3, above, to mitigate the significant impact at the Green Valley Road/Sophia Parkway intersection, requires that traffic signal timing be adjusted with County Transportation Division oversight at the Green Valley Road/Sophia Parkway intersection to provide a longer green phase for the westbound left-turn lane. It also requires that the protected left-turn lane be restriped to lengthen it to 350 feet to coincide with the length of the raised median that would be installed as part of the proposed project. The change in signal timing would result in a reduction of the left-turn lane queue to 282 feet in the a.m. peak hour and 249 feet in the p.m. peak hour, and there would be sufficient storage in the restriped left-turn lane to accommodate the queues. This would reduce the impact to a less than significant level.

Mitigation Measure

Implement Mitigation Measure MM TRA-3 (Adjust Signal Timing at Green Valley Road/Sophia Parkway and Restripe Westbound Left-Turn Lane).

Impact TRA-5 The proposed project would add vehicles to the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection, but this would not exceed available queue lengths under Existing plus Approved Projects (2019) conditions. **(Less than Significant)**

As shown in Table 3.1-13, above, the 95th percentile queue at eastbound left-turn lane at Intersection 5: Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road already exceeds the available storage (85 feet) in both the a.m. and p.m. peak hours. The simulation analysis indicates that the queues generated by the proposed project in the a.m. peak period would decrease by 3 feet, and p.m. peak period would increase only slightly (7 feet). Because the queue length would decrease with the project under existing plus approved project (2019) conditions in the a.m., it would not contribute to the existing exceedence. For the p.m. peak hour, the increase (7 feet) would be less than a car length, which would not be significant. The

queuing impact at the eastbound left-turn lane at the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection would be less than significant, and no mitigation is required.

Mitigation Measure

None required.

Roadway Segments – Existing Plus Project

Impact TRA-6 The addition of project traffic to Green Valley Road would not result in a decrease in roadway segment level of service. **(Less than Significant)**

Table 3.1-14 presents the roadway segment LOS for roadway segments on Green Valley Road west and east of Sophia Parkway with the addition of project traffic. As shown, the segment west of Sophia Parkway would continue to operate at LOS E in both directions, and the segment east of Sophia Parkway would continue to operate at LOS B or better. This is a less than significant impact.

TABLE 3.1-14
EXISTING PLUS PROJECT ROADWAY SEGMENT LEVELS OF SERVICE

Location	Facility Classification	Eastbound		Westbound	
		PTSF[a] or Density[b]	LOS	PTSF or Density	LOS
West of Sophia Parkway	Class II two-lane	96.1%	E	88.2%	E
East of Sophia Parkway	Multi-lane	15.9	B	10.6	A

a For two-lane highways, LOS is based on the PTSF (percent time spent following), which is a calculated measure of the percentage of vehicles traveling at headways of less than 3 seconds.

B For multi-lane segments, density measures the proximity of vehicles to each other in the traffic stream and is expressed as the number of passenger cars per mile per lane.

Source: KD Anderson 2015

Mitigation Measure

None required.

Roadway Segments – Existing Plus Approved Projects (2019) Plus Project

Impact TRA-7 The addition of project traffic to Green Valley Road would not result in a decrease in roadway segment level of service under Existing plus Approved Projects (2019) conditions. **(Less than Significant)**

Table 3.1-15 presents the roadway segment LOS for roadway segments on Green Valley Road west and east of Sophia Parkway with the addition of project traffic under Existing plus Approved Projects (2019) conditions. As shown, both segments would continue to operate at LOS B or better. This is a less than significant impact.

TABLE 3.1-15
EXISTING PLUS APPROVED PROJECTS (2019) PLUS PROJECT ROADWAY SEGMENT LEVELS OF SERVICE

Location	Facility Classification	Existing Plus Approved Projects (2019)				Existing Plus Approved Projects (2019) Plus Project			
		Eastbound		Westbound		Eastbound		Westbound	
		Density	LOS	Density	LOS	Density	LOS	Density	LOS
West of Sophia Parkway	Multi-lane	16.7	B	10.7	A	16.9	B	10.9	A
East of Sophia Parkway	Multi-lane	17.8	B	11.8	A	18.0	B	12.0	B

For multi-lane segments, density measures the proximity of vehicles to each other in the traffic stream and is expressed as the number of passenger cars per mile per lane.

Source: KD Anderson 2015

Mitigation Measure

None required.

Design Hazards

Impact TRA-8 The proposed project would result in new driveway access/egress along Green Valley Road and Sophia Parkway and modifications at the Green Valley Road/Sophia Parkway intersection, but these improvements would not result in any substantial design hazards related to sight distance, vehicle throat depth, or through traffic. **(Less than Significant)**

Sight Distance

Vehicles traveling eastbound on Green Valley Road would pass through the area of the proposed Green Valley Road driveway. The proposed driveway would be limited to right-in and right-out movements; therefore, only sight distance to the west is a consideration. The view from the proposed Green Valley Road driveway looking to the west is unobstructed with a line of sight of over 600 feet. That distance includes the view through the Sophia Parkway intersection. The HDM SSD identified for the Green Valley Road driveway is 430 feet; that indicates there is adequate sight distance for motorists traveling eastbound on Green Valley Road at the Sophia Parkway intersection to see a vehicle slowing down to turn right into the project at the Green Valley Road driveway and to react to that deceleration.

Vehicles traveling northbound along Sophia Parkway would pass through the area of the proposed Sophia Parkway driveway. There is an existing sidewalk south and north of the driveway. The line of sight needed to meet the HDM SSD standard is about 20 feet behind the sidewalk at the widest point. If the signal at Sophia Parkway is green, turning vehicles would be traveling at 20-25 mph as they approach the right turn onto eastbound Green Valley Road in the vicinity of the driveway. The HDM SSD for Sophia Parkway at the driveway is 150 feet. The available sight distance (greater than 430 feet) meets the minimum safe stopping sight distance. Therefore, adequate sight distance is present along Sophia Parkway.

The proposed project would provide sight distances for both driveways that meet the minimum SSD requirements of Table 201.1 of the HDM. Therefore, impacts would be less than significant.

Vehicle Throat Depth

At the Sophia Parkway driveway, the distance from Sophia Parkway to the first parking space in the aisle adjoining the store is roughly 60 feet. There is room for two vehicles to wait between the parking area and the street without encroaching onto the sidewalk. At the Green Valley Road driveway, the distance between the street and potential stopping points is greater. Assuming travel from the pumps in either direction, approximately 100 feet of queuing area would be available at the Green Valley Road driveway for waiting vehicles before the possibility of conflict with inbound traffic occurred.

As noted in Table 3.1-16, all driveway queues are projected to be one vehicle or less (i.e., less than 25 feet) with a 95% confidence interval. Because the available throat exceeds the queue, the throat is adequate. Impacts would be less than significant.

TABLE 3.1-16
DRIVEWAY THROAT DEPTH

Driveway Location	Throat (feet)	AM Peak Hour		PM Peak Hour	
		95th queue (feet)	Adequate?	95th queue (feet)	Adequate?
Green Valley Road	100	25	Yes	25	Yes
Sophia Parkway	60	25	Yes	25	Yes

Source: KD Anderson 2015

Relationship to Through Traffic

Eastbound Green Valley Road

The proposed project would include a right-turn taper along Green Valley Road that would be 135 feet long and 8 feet wide. This allows motorists to continue to decelerate in the area outside of the through-travel lanes as they approach the driveway on Green Valley Road. In order to safely enter the taper, a motorist traveling at 55 mph intending to turn into the driveway would begin to decelerate within the Sophia Parkway intersection. The motorist would then move into the 4-foot-wide bike lane on the east side of the Green Valley Road/Sophia Parkway intersection prior to the beginning of the taper, and from that location the driveway is 200 feet. From the point where deceleration begins in the intersection to the driveway would be at least 300 feet or more. This distance would be greater than the required site-specific HDM deceleration lane length of 275 feet calculated for the proposed project. Therefore, with the proposed right-turn taper, the proposed access would not represent a design hazard for eastbound traffic on Green Valley Road.

Vehicles exiting the Green Valley Road driveway would turn right to enter eastbound traffic. The adjacent traffic signal would provide regular gaps in traffic. The uphill grade at that location is approximately 4%. Vehicles can accelerate on grades up to 5% without loss of speed.[5] That is, a vehicle accessing Green Valley Road from the driveway would be able to accelerate similar to

[5] AASHTO (American Association of State Highway and Transportation Officials), *A Policy on Geometric Design of Highways and Streets*, 2001.

acceleration that would be possible if it were flat (0% grade). Drivers, particularly if towing trailers or driving large trucks, tend to enter roadways only when clear (that is, when the signal for eastbound traffic at the Green Valley Road/Sophia Parkway intersection is red). The sight distance west of the proposed driveway is unobstructed for at least 600 feet through the Sophia Parkway intersection. Therefore, there would be sufficient distance for drivers exiting the site to safely enter Green Valley Road and accelerate into through traffic, and for eastbound motorists to see and react to a vehicle entering Green Valley Road from the driveway.

The proposed project is estimated to result in approximately 43% of the project's trips making U-turns from the left-turn lane on westbound Green Valley Road at Sophia Parkway during the p.m. peak hour to access the Green Valley Road driveway. Because eastbound traffic on Green Valley Road is stopped by the signal when U-turns occur, this would have no impact on eastbound through-traffic conditions.

Therefore, design hazard impacts related to sight distance, vehicle throat depth, and through traffic on Green Valley Road would be less than significant. No mitigation is required.

As noted above, the planned widening of Green Valley Road in the area from E. Natoma Street to Sophia Parkway would eliminate the bottleneck that is created by the lane drop east of E. Natoma Street in Folsom. Because eastbound vehicles will be able to maintain travel speed from Folsom to the Sophia Parkway intersection, the maneuvering between lanes that has been observed by the public as motorists try to negotiate from one lane to two lanes to pass slower-moving vehicles would be substantially reduced.

Westbound Green Valley Road

As part of the proposed project, a raised, 350-foot-long median would be installed on Green Valley Road along the project frontage, which would extend eastward beyond the project driveway. This would prevent left turns into and out of the project site at the Green Valley Road driveway. Therefore, there would be no impact on westbound through traffic on Green Valley Road.

Northbound Sophia Parkway

Along the project frontage, northbound Sophia Parkway has a left lane, a left-through lane, and right-only lane. The left-through lane provides through access only to the Folsom SRA, and the roadway ends just north of Green Valley Road. There would be no impact on through lanes on Sophia Parkway. As noted above, there is sufficient sight distance for vehicles to enter the roadway to access the left- and right-turn lanes.

Southbound Sophia Parkway

There is an existing median on Sophia Parkway that extends between Green Valley Road and Corsica Drive. The median would prevent left turns into and out of the project site at the Sophia Parkway driveway. Therefore, there would be no impact on southbound through traffic on Sophia Parkway.

Other Design Considerations

The proposed project would require periodic deliveries of fuel and goods in trucks that could be up to 40 feet long. The driveway accesses and site plan take into account the movement of large vehicles into and out of the project's driveways. Because the site has been designed to

accommodate long vehicles, large recreational vehicles and vehicles with boat trailers would also be able to safely make turns in and out of the site.

The existing raised median on Sophia Parkway and the proposed median on Green Valley Road would preclude left turns into the project. This would tend to make vehicular approaches from the east on Green Valley Road (i.e., westbound) impractical. As such, most delivery vehicles would be expected to approach the project site from either the west on Green Valley Road (heading east) or from the south on Sophia Parkway (heading north), and they would not need to make U-turns. However, if a vehicle traveling westbound on Green Valley Road were to use the left-turn lane at Sophia Parkway to make a U-turn to access the site, such turns could be negotiated safely because the curb at the southeast side of the intersection would be modified to conform to County standards.

Impacts would be less than significant.

Mitigation Measure

None required.

Pedestrian/Bicycle Facilities

Impact TRA-9 The proposed project would provide services that may be used by pedestrians and bicyclists traveling past the site. **(Less than Significant)**

Development of the project may result in a few pedestrians or bicyclists traveling to the site. Pedestrians may walk to the project from the neighborhoods along Sophia Parkway to the south, and it is likely that some pedestrians using the MIAD-Brown's Ravine Marina Trail system would stop at the project as part of their trip. Similarly, some cyclists using Green Valley Road or Sophia Parkway could be expected to stop at the project as part of their ride with an origin and destination elsewhere. The project would provide an Americans with Disabilities Act-compliant path from the sidewalk on Sophia Parkway to the retail store to facilitate these trips. Because the number of pedestrians and cyclists attracted specifically to the site would not be large, the project's impact on regional pedestrian and bicycle facilities would be less than significant.

Mitigation Measure

None required.

Vehicle and Pedestrian/Bicyclist Conflicts

Impact TRA-10 The proposed project could increase the potential for vehicle and pedestrian/bicyclist conflicts at the Green Valley Road/Sophia Parkway intersection and at the Sophia Parkway driveway. **(Potentially Significant)**

There is an existing sidewalk along Sophia Parkway through which the proposed driveway would be constructed, and there is also a bike lane that passes by the driveway area. Parking is allowed along both sides of Sophia Parkway beginning approximately 160 feet from the intersection. Parking is adjacent to the existing bike lane. There are signal-controlled crosswalks on the south and east sides of the Sophia Parkway/Green Valley Road intersection that provides for safe pedestrian and bicycle crossings. There is no sidewalk or parking along Green Valley Road at the access driveway, but there is a bike lane.

The proposed project would increase the volume of traffic through the Green Valley Road/ Sophia Parkway intersection, where pedestrian, bicycle and parking activity can be appreciable, particularly on weekends. The proposed project would also result in new turning movements into and out of the Green Valley Road and Sophia Parkway driveways. Existing pedestrian and bicycle activities, in combination with the additional vehicle traffic, would result in the potential for increased vehicle and pedestrian or bicycle conflicts compared to existing conditions. The potential for such conflicts typically occur at any business with vehicular access to streets where pedestrians and bicyclists are present. Potential conflicts would be minimized by correct driveway access design that provides adequate sight distance for all transportation modes, avoids queuing in driveways, and provides sufficient distance for vehicles to decelerate before making turns (i.e., reduces vehicle speed), which is described in Impact TRA-8.

Green Valley Road Driveway

As described in Impact TRA-8, with at least 600 feet of unobstructed view, there is sufficient sight distance at the Green Valley Road driveway to allow a motorist to see and react to a bicyclist in the bike lane approaching or passing by the driveway. There is also sufficient distance provided by the deceleration lane to reduce speeds. The Green Valley Road driveway would provide approximately 100 feet of queuing area for waiting vehicles before the possibility of conflict with inbound vehicle traffic occurred. This would ensure bicyclists would not have to leave the bike lane and enter through traffic to pass the driveway.

Sophia Parkway Driveway

As noted in Impact TRA-8, the distance from the Sophia Parkway driveway entrance to the first on-site parking space is approximately 60 feet. There is room for two vehicles to wait between the on-site parking area and the street without encroaching onto the sidewalk or bike lane. This would ensure pedestrians and bicyclists would not have to leave the sidewalk and/or bike lane to pass the driveway. Therefore, this would be a less than significant impact relative to the vehicle throat depth criterion.

Vehicles traveling northbound along Sophia Parkway would pass through the area of the proposed Sophia Parkway driveway. There is an existing sidewalk south and north of the proposed driveway. Vehicles would be traveling at 20-25 mph as they approach Green Valley Road/Sophia Parkway intersection in the vicinity of the driveway. The HDM SSD for Sophia Parkway at the driveway is 150 feet, as noted in Impact TRA-8.

However, the driveway would be located in an area where parking is currently allowed. Demand for parking is minor and generated primarily by visitors to the Folsom SRA. The driveway would remove some parking spaces, and parking would occur farther south on Sophia Parkway, as compared to existing conditions.[6] This has the potential to affect sight distance for vehicles traveling northbound in the vicinity of the driveway in a manner that could increase the potential that motorists might not see pedestrians or bicyclists at the driveway, thus increasing the potential for conflicts. This is a potentially significant impact.

Implementation of Mitigation Measure MM TRA-10 would result in the placement of "No Parking" signs to prevent vehicles from parking in an area that could otherwise restrict sight distance in a

[6] Parking would not occur north of the driveway because no parking is allowed under current conditions.

manner that could pose safety concerns for pedestrians and bicyclists.[7] It would ensure there is adequate sight distance for vehicles approaching and exiting the driveway to see pedestrians, bicyclists, and other vehicles well in advance of turning onto Sophia Parkway. This would reduce the impact to a less than significant level.

The proposed project would not measurably increase the number of pedestrians or bicyclists at the intersection (Impact TRA-9), but it would increase the number of vehicles at the intersection. The TIA recommended adding a Leading Pedestrian Interval (LPI) to the Sophia Parkway traffic signal's northbound phase to address weekend conditions. An LPI is a time period when the pedestrian indication tells pedestrians it is okay to begin crossing but holds northbound traffic in red. LPIs enhance the visibility of pedestrians in the intersection because motorists will see them at a location farther into the crosswalk when the signal turns green. An LPI is typically between 3 to 7 seconds in length, but may be longer when high pedestrian volumes occur. This would help further reduce the potential for vehicle and pedestrian/vehicle conflicts associated with project operation. The LPI improvement may be accomplished when the intersection improvements that are part of the proposed project are constructed and in conjunction with changing the signal timing (Mitigation Measure MM TRA-2).

Mitigation Measure

MM TRA-10 A portion of the curb along Sophia Parkway adjoining the project driveway south of project shall be marked as "No Parking." The applicant shall coordinate with the County Transportation Division to determine the specific distance where parking would be prohibited.

In conjunction with the signal timing change required under mitigation measure MM TRA-2, a leading pedestrian interval (LPI) shall be added to the Sophia Parkway traffic signal's northbound phase.

Timing/Implementation: Prior to issuance of occupancy permit.

Enforcement/Monitoring: County of El Dorado Transportation Division

Emergency Access

Impact TRA-11 Construction of the proposed project could affect emergency access. **(Potentially Significant)**

Operational Impacts

All project access driveways would be right-in, right-out access. Emergency vehicle response may require a U-turn depending on the direction of approach. The primary access for fire and medical response would be from El Dorado Hills Station 84 located along Francisco Drive, northeast of the project. Secondary response could be from the City of Folsom's Station 38 along Blue Ravine Road (Green Valley Road), west of the project site. Review of truck turning requirements indicates that fire apparatus can complete a U-turn along westbound Green Valley Road. Secondary access from Folsom and access from either the north or south

[7] Section 942.5 of the State of California Streets and Highways Code allows the County to invoke parking restrictions when necessary for the protection of the public.

approaches of the intersection would be via a right turn into the site along Green Valley Road or Sophia Parkway. Operational impacts would be less than significant.

Construction Impacts

Soil Import Haul Truck Trips

The proposed project would require approximately 12,000 cubic yards of fill to raise the current site grade. Potential import soil sources are the parcel immediately west of Sophia Parkway and/or the MIAD construction project site to the northwest. It is anticipated there would be approximately 65 trips per work day minimum over a one-month period. This could be expedited to three weeks, due to the close proximity, which would result in approximately 88 to 90 trips per work day. Haul trucks would access the project site from the existing driveway on Green Valley Road. Trucks would need to leave the site via Sophia Parkway to return to the fill source site in order to avoid safety hazards that could be posed by trucks turning left onto westbound Green Valley Road. All other construction equipment and staging would be on the project site, which would not affect roadway operations.

However, the addition of slow-moving haul trucks along Green Valley Road through the Sophia Parkway intersection could temporarily increase traffic congestion, particularly during a.m. and p.m. peak hours, which has the potential to affect emergency response vehicle travel. This is a potentially significant impact that would occur only during construction (approximately three to four months).

Median Installation and Utility Improvements

The proposed project would install a raised median on Green Valley Road. It would also include modifications along Green Valley Road to construct the driveway access taper, sidewalk/curb improvements at the Green Valley Road/Sophia Parkway intersection, and underground utility connections. These activities could result in the need for lane closure or restrictions, which could affect intersection operations or emergency vehicle travel. This is considered a potentially significant impact. However, because of the short duration of the project (approximately three to four months), these impacts would be temporary.

Implementation of the following mitigation measure would ensure construction haul truck operations and project improvements in and along Green Valley Road or along Sophia Parkway do not pose safety hazards for motorists. This would reduce the impact to a less than significant level.

Mitigation Measure

MM TRA-11 Project conditions of approval shall require the following:

a. Soil import haul truck traffic shall be limited to non-peak hours only. The exact hours will be determined when the encroachment permit is issued, based on the most recent traffic counts available from the Transportation Division at the time the permit is issued. Haul trucks may not exit the site via left turn onto Green Valley Road.

b. Prior to activities that would involve improvements on Green Valley Road and Sophia Parkway, the applicant's contractor shall notify the El Dorado County Transportation Division to determine specific traffic controls that shall

be implemented, including but not limited to signage, barriers, flaggers, and notifications to public regarding potential lane closures or narrowing.

c. The applicant's contractor shall maintain one open lane on Green Valley Road and Sophia Parkway at all times.

Timing/Implementation: During construction.

Enforcement/Monitoring: County of El Dorado Transportation Division

CUMULATIVE IMPACTS

The cumulative setting for traffic and circulation impacts was described under the "Methods of Analysis" subheading, above.

Intersection Operations – Cumulative Plus Project

Impact TRA-12 The addition of project traffic to cumulative conditions would not result in a decline in service at the study intersections. **(Less than Cumulatively Considerable)**

Table 3.1-17 displays the a.m. and p.m. peak hour LOS for the Year 2035 conditions with and without the project. **Figure 3.1-8** displays the Year 2035 Plus Project volumes and lane configurations at each study intersection. Under cumulative conditions without the proposed project, the five study intersections in the County (2, 3, 4, 5, and 6) would operate within County LOS thresholds (LOS E). The Green Valley Road-Blue Ravine Road / E. Natoma Street intersection in the City of Folsom would decline to LOS D in the a.m. peak hour and LOS E in the p.m. peak hour, which exceeds the City's standard of LOS C under cumulative conditions without the project.

All five study intersections in El Dorado County and both of the project access intersections would continue to operate within the minimum County LOS thresholds with the proposed project. For the five study intersections, there would be no change in LOS.

The Green Valley Road-Blue Ravine Road / E. Natoma Street intersection in the City of Folsom would continue to operate at an LOS D condition in the a.m. peak hour and an LOS E condition in the p.m. peak hour with the proposed project. Under City of Folsom guidelines, if an intersection is operating at an unacceptable LOS without the project, a project is not considered to have a significant impact if the increase in delay is 5.0 seconds or less or the increase in the volume to capacity ratio is 0.05 or less. In this case, the incremental change in delay caused by the proposed project is 0.5 seconds in the a.m. peak hour and 2.4 seconds in the p.m. peak hour, which is below the 5.0 seconds threshold. Thus, the project's impact is not significant under the City of Folsom criterion.

TABLE 3.1-17
AM / PM PEAK HOUR INTERSECTION LEVELS OF SERVICE
CUMULATIVE PLUS PROJECT

Location	Control	Cumulative				Cumulative Plus Project				
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Traffic Signal Warranted?
		LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	
1. Green Valley Rd / Blue Ravine Rd / E. Natoma St	Signal	**D**	**40.4**	**E**	**71.5**	**D**	**40.9**	**E**	**73.9**	**
2. Green Valley Rd / Sophia Parkway	Signal	C	22.8	C	27.6	D	36.2	C	33.9	**
3. Green Valley Rd / Amy's Lane	NB Stop									
Northbound approach		C	21.7	E	44.9	C	21.9	E	45.8	
Westbound left turn		---	---	C	19.1	---	---	C	19.4	No
4. Green Valley Rd / Francisco Dr	Signal	D	42.7	D	51.0	D	43.4	D	52.1	**
5. Green Valley Rd / El Dorado Hills Blvd – Salmon Falls Rd	Signal	D	46.0	C	30.9	D	45.8	C	31.1	**
6. Sophia Parkway / Elmores Way	AWS	B	10.3	B	10.5	B	10.4	B	10.7	No
7. Sophia Parkway / Gas Station Access	WB Stop									
Westbound right turn		N/A	N/A	N/A	N/A	B	11.0	B	10.4	No
8. Green Valley Rd / Gas Station Access	NB Stop									
Northbound right turn		N/A	N/A	N/A	N/A	B	11.6	D	25.4	No

*** - intersection already has a signal*

AWS – all way stop

N/A – not applicable (driveways do not exist without the project)

***Bold** indicates LOS threshold exceeded*

Source: KD Anderson 2015

The proposed project's intersection operations impacts would not be cumulatively considerable, and the cumulative impact is therefore less than significant.

Mitigation Measure

None required.

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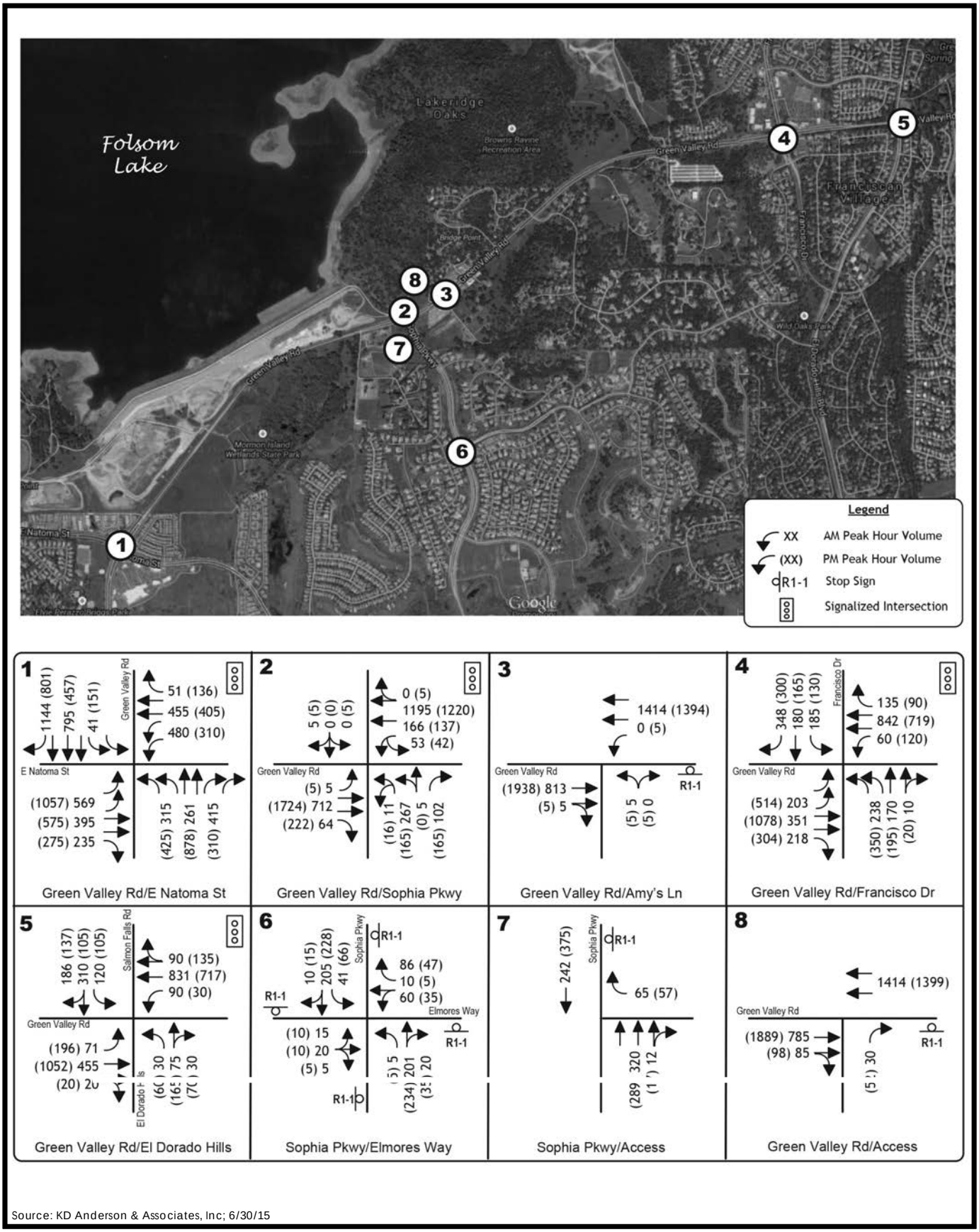

Source: KD Anderson & Associates, Inc; 6/30/15

Not to scale

Figure 3.1-8

Cumulative (2035) Plus Project Traffic Volumes and Lane Configurations

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Queuing – Cumulative Plus Project

Impact TRA-13 The proposed project would add vehicles to the Green Valley Road/Sophia Parkway westbound left-turn lane that could exceed available queue lengths under existing plus cumulative conditions. (**Less than Cumulatively Considerable with Mitigation)**

Table 3.1-18 presents the simulated queuing results for the Green Valley Road/Sophia Parkway and Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersections. As shown, the 95th percentile queue at one intersection would exceed the available queue length (Intersection 2: Green Valley Road/Sophia Parkway).

TABLE 3.1-18
PROJECTED CUMULATIVE 95TH PERCENTILE QUEUES

Location	Lane Length (feet)	95th Percentile Queue (feet)			
		Cumulative		Cumulative Plus Project	
		AM	PM	AM	PM
2.Green Valley Rd / Sophia Parkway					
Eastbound Green Valley through lanes	-	217	340	229	336
Westbound left-turn lane	230	**252**	217	**333**	**308**
Northbound left-turn lanes	200	118	88	115	96
5.Green Valley Rd / El Dorado Hills Blvd / Salmon Fall Rd					
Eastbound left-turn lane	>200	131	207	140	202

Bold *indicates turn lane length exceeded.*

Length indicated is worst case for multiple lane movements.

Source: KD Anderson 2015

Green Valley Road/Sophia Parkway

Green Valley Road Eastbound Through Lanes. The proposed project is projected to lengthen the stopped queue on the eastbound Green Valley Road through-approach to the Sophia Parkway intersection. The queues resulting from the proposed project would add 12 feet to a.m. peak hour queues and decrease the p.m. peak hour queue by 4 feet. As described in Impact TRA-3, there is not an applicable lane length. Cumulative impacts would be less than significant.

Sophia Parkway Northbound Left-Turn Lanes. Under cumulative plus project conditions, the queue would decrease slightly under a.m. peak hour conditions and slightly increase under p.m. peak hour conditions. The lengths would be well under the existing 200-foot lane length. Cumulative impacts would be less than significant.

Green Valley Road Westbound Left-Turn Lane. As shown in Table 3.1-18, the queues in the a.m. peak hour would exceed the striped lane length of 230 feet without the project. The addition of project traffic would increase the queue length in the westbound left-turn lane in the a.m. peak hour from 252 feet 333 feet, and in the p.m. peak hour it would increase from 217 to 308 feet, assuming existing traffic signal operation. This is a significant impact because it would exceed the existing protected left-turn lane length of 230 feet.

Implementation of Mitigation Measure MM TRA-3 requires that traffic signal timing be adjusted with County Transportation Division oversight at the Green Valley Road/Sophia Parkway intersection to provide a longer green phase for the westbound left turn. It also requires that the protected left-turn lane be restriped to lengthen it to 350 feet to coincide with the length of the raised median that would be installed as part of the proposed project. The change in signal timing would result in a reduction of the left-turn lane queue to 224 feet in the a.m. peak hour and 246 feet in the p.m. peak hour, and there would be sufficient storage in the restriped left-turn lane to accommodate the queues. This would reduce the impact to a less than cumulatively considerable level.

Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road

Queues along Green Valley Road in the eastbound left-turn lane at El Dorado Hills Boulevard/Salmon Falls Road would increase by 9 feet to 140 feet in the a.m. peak hour and decrease by 5 feet to 202 feet in the p.m. peak hour.

With implementation of the planned four-lane widening of Green Valley Road under cumulative conditions (without the proposed project), the existing eastbound left-turn lane at the El Dorado Hills Boulevard-Salmon Falls Road intersection will be lengthened. Although the exact distance is unknown, it is reasonable to assume it would provide at least 200 feet of storage. The widening project would be designed to meet operational requirements in accordance with applicable General Plan policies, taking into account the traffic counts and operational characteristics of the intersection at that time. However, because the a.m. peak hour increase (9 feet) is less than a car length, this is not considered significant. Thus, the 95th percentile queues at this location with the proposed project would not exceed the available queue length in both the a.m. and p.m. peak hours.

Mitigation Measure

Implement Mitigation Measure MM TRA-3 (Adjust Signal Timing at Green Valley Road/Sophia Parkway Intersection and Restripe Green Valley Road Left-Turn Lane).

Roadway Segments – Cumulative Plus Project

Impact TRA-14 The addition of project traffic to Green Valley Road would not result in a decrease in roadway segment level of service under cumulative conditions. **(Less than Cumulatively Considerable)**

Table 3.1-19 presents the roadway segment LOS for roadway segments on Green Valley Road west and east of Sophia Parkway with the addition of project traffic under cumulative conditions. As shown, both segments would continue to operate at LOS C or better. The proposed project's contribution would be less than cumulatively considerable. This is a less than significant cumulative impact.

TABLE 3.1-19
CUMULATIVE PLUS PROJECT ROADWAY SEGMENT LEVELS OF SERVICE

Location	Facility Classification	Cumulative				Cumulative Plus Project			
		Eastbound		Westbound		Eastbound		Westbound	
		Density	LOS	Density	LOS	Density	LOS	Density	LOS
West of Sophia Parkway	Multi-lane	19.5	C	13.9	B	19.7	C	14.1	B
East of Sophia Parkway	Multi-lane	19.0	C	14.0	B	19.2	C	12.4	B

For multi-lane segments, density measures the proximity of vehicles to each other in the traffic stream and is expressed as the number of passenger cars per mile per lane.

Source: KD Anderson 2015

Mitigation Measure

None required.

Design Hazards, Vehicle and Pedestrian/Bicyclist Conflicts, Emergency Access, and Construction Traffic – Cumulative Plus Project

Impact TRA-15 The proposed project would not result in any substantial cumulative design hazards related to driveway access design, pedestrian/bicyclist conflicts, emergency access, or parking. **(Less than Cumulatively Considerable)**

There are currently no other approved or proposed projects in the immediate vicinity of the project that would install new or modified driveways or other improvements that, when combined with the proposed project, would result in cumulative vehicle and pedestrian/bicyclist conflicts, emergency access, or construction impacts. Such impacts would be site-specific, and there are no other approved or proposed projects in the immediate vicinity of the project that would combine with those of the proposed project to result in a cumulative impact. Although there would be an increase in traffic volumes under cumulative conditions with or without the project, sight distances, signalization, and the availability of crosswalks at the Green Valley Road/Sophia Parkway intersection would be unchanged. The proposed project's contribution would not be cumulatively considerable, and this would be a less than significant cumulative impact.

Mitigation Measure

None required.

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3.2 Biological Resources

INTRODUCTION

This section evaluates the potential environmental impacts of the proposed project on special-status species, riparian habitat, and wetlands. The description of existing conditions and analysis presented in this section are based on several technical studies and agency documentation, which are referenced at the end of this section.

This section addresses comments received on the Notice of Preparation concerning impacts on riparian habitat and species that use this habitat and how they could be affected by project construction activities and stormwater flows from the developed project.

3.2.1 EXISTING CONDITIONS

The project site is approximately 2.12 acres on the southeast corner of Green Valley Road and Sophia Parkway, in the El Dorado Hills area. The site is at approximately 420 feet above mean sea level and is approximately 10 feet, on average, below the elevation of the roadways. The southern portion of the site is bisected by a seasonal stream (also referred to as Channel 1), and the site slopes southward toward the seasonal stream and a seasonal wetland. Photographs of the project site, taken in April 2015, are shown in Photo 3.2-1 through Photo 3.2-4.

The eastern boundary of the site adjoins a recreational vehicle (RV)/boat storage yard that is paved. To the southeast and south are vacant parcels zoned for residential use, two residences, and an El Dorado Irrigation District sewer lift station. Residential subdivisions are farther south on Sophia Parkway on the east and west sides. The Mormon Island Wetland Preserve is west of Sophia Parkway, west of commercial-zoned land. The Folsom Lake State Recreation Area (SRA) is on the north side of Green Valley Road. Trail access to the SRA and Brown's Ravine Marina is on the north side at the Green Valley Road/Sophia Parkway intersection. The Mormon Island Auxiliary Dam (MIAD), one of the dams impounding Folsom Lake, is also across Green Valley Road to the northwest, where there is currently construction associated with MIAD improvements.

BIOLOGICAL COMMUNITIES

Biological communities at the project site consist of ruderal vegetation, a seasonal stream, and a seasonal wetland, the locations of which are shown on **Figure 3.2-1**. The remnants of the Green Valley Road widening and Sophia Parkway roadway projects in 2002 are evident from old spoils piles, with gravel and cobble evident at the surface, covered primarily with ruderal vegetation, which is the predominant habitat on the site. Similar conditions are present west of Sophia Parkway, which is a proposed source for soil import. The potential fill site is bisected by the same seasonal stream as the project site.

There are 37 trees/saplings with a diameter at breast height (dbh) of at least 1 inch. The locations of the trees are shown in **Figure 3.2-2**. Eleven of the trees/saplings are less than 5 dbh (one Goodding's black willow, two valley oaks, and eight Chinese pistache).

Riparian Habitat

Most of the trees are species that occur frequently in riparian settings in the project vicinity. Several young Fremont cottonwood (*Populus fremontii ssp. fremontii)* trees have established among the spoils piles. These young cottonwoods are considered riparian vegetation because they may be influenced by the proximity of the seasonal stream, although they are not directly along the stream. Native willows (*Salix laevigata*, *S. gooddingii*, *S. exigua*) and cottonwoods,

and nonnative invasive Himalayan blackberry (*Rubus armeniacus*), have substantially expanded along the seasonal stream since the construction of Sophia Parkway. There is one blue oak tree within the line of Chinese pistache along the eastern boundary of the project site. This tree is outside the disturbance footprint of the project.

Wetlands

A seasonal stream bisects the southern portion of the parcel, flowing west through culverts under Sophia Parkway. A seasonal wetland, south of the stream, occupies much of the southern end of the parcel. The locations of the seasonal stream and wetland are shown on Figure 3.2-1.

The intermittent hydrology of the seasonal stream is influenced by natural precipitation as well as urban irrigation runoff. Both the seasonal stream and seasonal wetland dry out in mid- to late summer. The stream is also seasonal upstream. Downstream of the site, the seasonal stream drains into a man-made ditch located on the west side of Shadowfax Lane. The ditch was constructed when soil from the MIAD construction was deposited and leveled in that area. That ditch travels south approximately 800 feet, turns to the west, and empties over the top of a waterfall into a round-rock pool and stream that joins the waters of the Mormon Island Wetland Preserve (Preserve), eventually becoming a tributary to Willow Creek, which discharges to Lake Natoma on the American River. The Preserve is significantly lower in elevation because of the soil deposits, creating the waterfall.

A wetland delineation for the project site was prepared in 2013 and verified by the U.S. Army Corps of Engineers (USACE). The delineation identified approximately 0.47 acre of wetlands (0.07 acres seasonal stream and 0.40 acres seasonal wetland). The disturbance footprint for the proposed project avoids the wetland. However, the proposed project would be within the County's 50-foot riparian/wetland setback established under General Plan Policy 7.3.3.4 Interim Interpretive Guidance. This issue is evaluated in Impact BIO-6.

Mormon Island Wetland Preserve

The MIAD dams water within a historic river channel, which has resulted in the creation of several perennial wetlands, including the Mormon Island Wetland Preserve. The Preserve consists of two major vegetation communities: cattail emergent wetland and cottonwood/willow riparian woodland. In addition, seasonal wetland habitats are present within the Preserve area (Reclamation 2009).

SPECIAL-STATUS ANIMALS AND PLANTS

The potential occurrence of animal and plant species within the project site was determined through a review of the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW) Natural Diversity Database (CNDDB), and California Native Plant Society (CNPS) databases and field observations. The USFWS, CDFW, and CNDDB species lists are included in **Appendix D**. Table D-1 in Appendix D identifies the special-status species that were evaluated, their status, habitat requirements, and potential for occurrence at the project site.

Of the 52 identified species, it was determined that one reptile, two birds, and two plants have potential habitat at the site, and these species were further evaluated to determine whether they could be affected by the proposed project. For the remaining species, there is no potential for occurrence at the project site.

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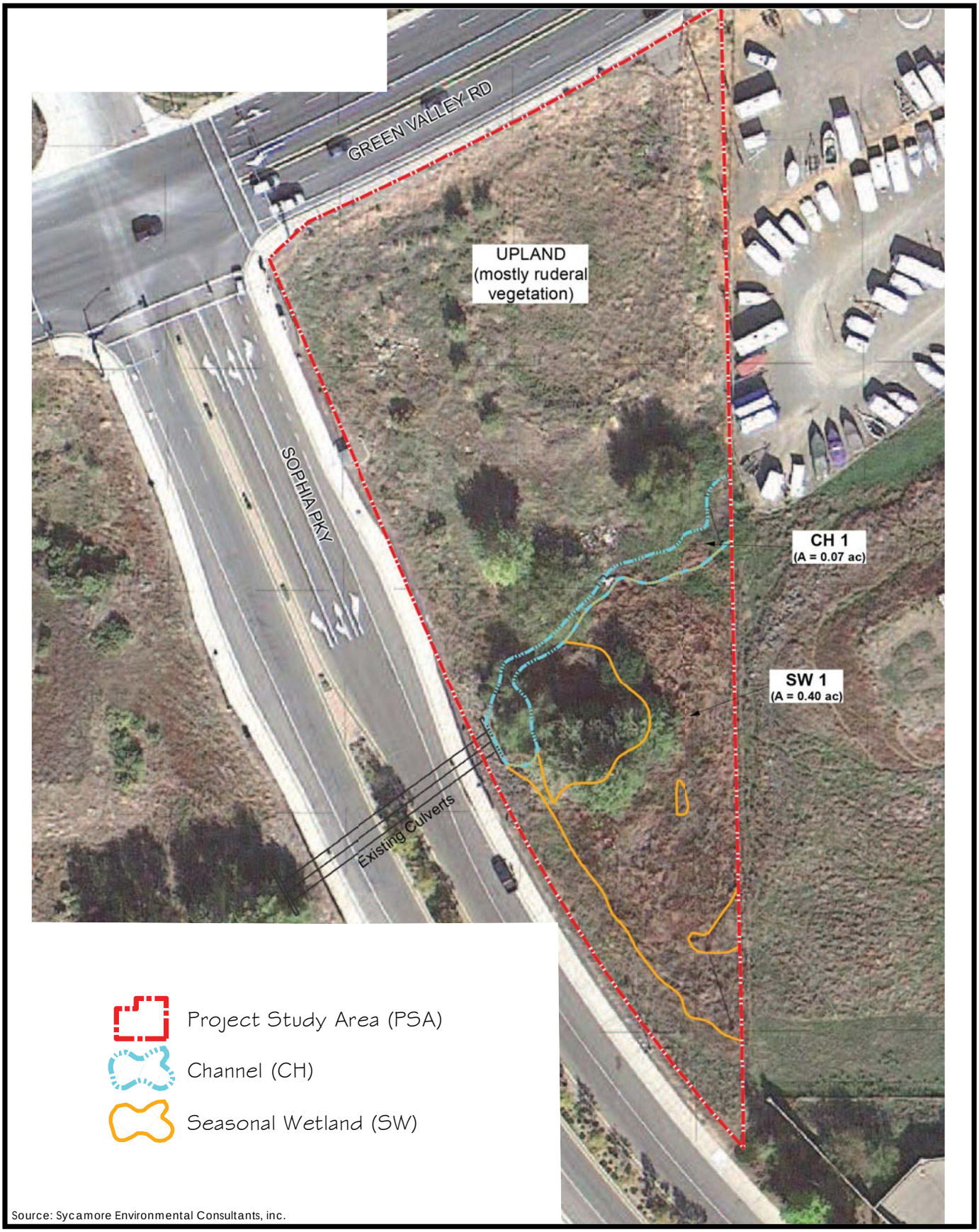

Source: Sycamore Environmental Consultants, inc.

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Figure 3.2-1
Habitats

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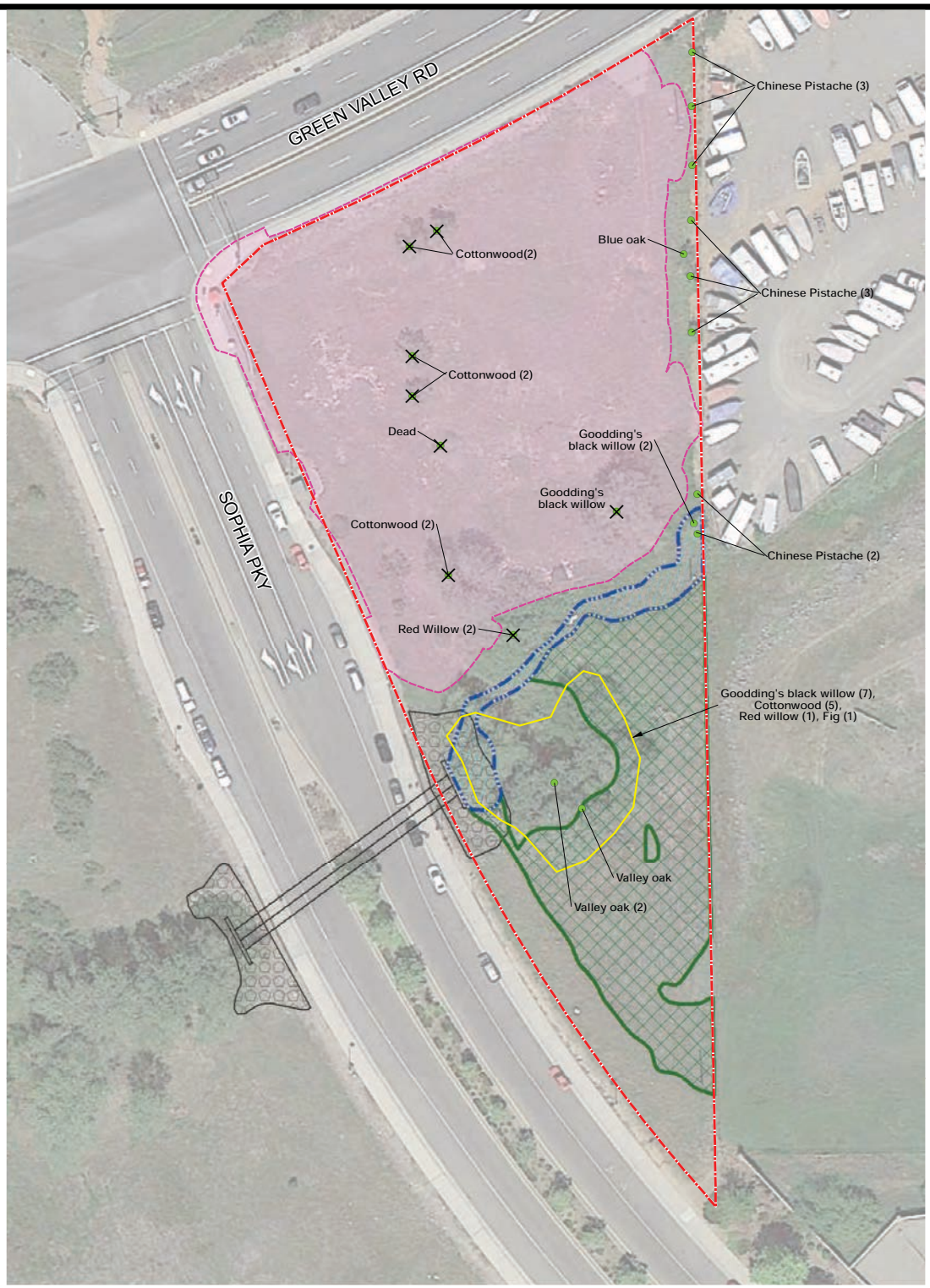

Source: Sycamore Environmental Consultants, inc.

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Figure 3.2-2
Trees

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Photo 3.2-1. View east from the edge of Sophia Parkway. Spoils piles left over from the construction of Sophia Parkway and widening of Green Valley Road in 2002 are visible. (Source: Sycamore 2015)

Photo 3.2-2. View north, from the edge of Sophia Parkway. The seasonal stream is out of view on the right. The proposed driveway access to Sophia Parkway is in the foreground. Spoils piles left over from the construction of Sophia Parkway and widening of Green Valley Road in 2002 are visible. (Source: Sycamore 2015)

Photo 3.2-3. View east along the seasonal stream near the center of the site. The seasonal stream is not visible under the Himalayan blackberry. (Source: Sycamore 2015)

Photo 3.2-4. View north from near the southern tip of the site. The wetland is in the low area in the center. (Source: Sycamore 2015)

Special-Status Animals

Western Pond Turtle

Western pond turtle (*Emys marmorata*)[1] prefers aquatic habitats with abundant vegetative cover and exposed basking sites such as logs. The species is typically associated with permanent or nearly permanent water in a wide variety of habitat types, normally in ponds, lakes, streams, irrigation ditches, or permanent pools along intermittent streams. Western pond turtle nests have been observed in many soil types and up to 325 feet from permanent water, but must have a relatively high internal humidity. Hatchlings may be subject to rapid death by desiccation if exposed to hot, dry conditions. As noted above, much of the project footprint consists of old spoils piles with gravel and cobble left over from the use of the site as construction staging. While the seasonal stream and seasonal wetland may provide habitat seasonally, the seasonal stream provides only marginal habitat for western pond turtle due to intermittent hydrology. Western pond turtle at the site would be confined to the seasonal stream when water is present, and the proposed project footprint does not extend into the seasonal stream. Further, the project site is not within 325 feet of a permanent water body. As such, the project site is not suitable nesting habitat for western pond turtle (Sycamore 2015). Western pond turtle was not observed at the site.

Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*)[2] is an open-country bird that forages in grasslands and agricultural fields, especially after disking or harvest. They feed on small birds, rodents, mammals, reptiles, large arthropods, amphibians, and, rarely, fish. The hawks can forage as far as 20 miles from the nest. One large cottonwood tree at the site could provide potential nesting habitat for Swainson's hawk, although no nests were observed (Sycamore 2015). The project site is small (2 acres) and provides minimal foraging opportunities for Swainson's hawk.

White-Tailed Kite

White-tailed kite (*Elanus leucurus*)[3] is a year-long resident in coastal and valley lowlands that forages in undisturbed open grasslands, meadows, farmlands, and emergent wetlands. They feed on rodents, small reptiles, and large insects. Small groves of dense, broad-leafed deciduous trees are used for nesting and roosting. Nests are usually near the top of dense oak, willow, or other tree stands near open foraging area. One large cottonwood tree at the site could provide potential nesting habitat for white-tailed kite, although no nests were observed (Sycamore 2015).

Special-Status Plants

Blooming-period surveys were performed in April and May 2013 and April 2015 for species that have the potential to occur on-site, which are listed in Table D-1 in Appendix D. These species and survey results are described below.

[1] Status: California species of special concern (see Table D-1 in Appendix D).
[2] Status: State threatened (see Table D-1 in Appendix D).
[3] Status: California fully protected (see Table D-1 in Appendix D).

Sanford's Arrowhead

Sanford's arrowhead (*Sagittaria sonfordii*)[4] is an emergent perennial herb found in shallow freshwater marshes and swamps from 0 to 2,000 feet. This species was not observed during botanical surveys of the project site in 2013 and 2015. While the seasonal wetland in the project site may contain water late enough into the summer to support this species, the ground disturbance footprint of the project would not extend into the wetland. As such, the proposed project would not affect Sanford's arrowhead (Sycamore 2015).

Tuolumne Button-Celery

Tuolumne button-celery (*Eyngium pinnatisectum*)[5] is an annual to perennial herb that may occur in the seasonal wetland. It has been reported in El Dorado County. However, the plant was not observed during botanical surveys. The ground disturbance footprint of the project would not extend into the wetland, and the proposed project would not affect this species (Sycamore 2015).

MIGRATORY BIRDS

The nearest CNDDB record of a special-status bird nest is a pair of bald eagles at the Folsom Lake SRA on February 19, 2015. Based on spatial and written information in the CNDDB, the bald eagle nest is at least 1,400 feet north of the project site. From the project site, the area to the north in the direction of the record was scanned with binoculars, but the bald eagle nest could not be seen. Based on the information in the CNDDB, the nest may be on the other side of a small ridge in the SRA. One large cottonwood tree at the site could provide potential nesting habitat for Swainson's hawk and white-tailed kite, although no nests were observed. The site is near the edge of the Swainson's hawk range and utilization is unlikely. The nearest recorded Swainson's hawk nest in the CNDDB is approximately 2.5 miles southwest of the project site (Sycamore 2015).

Golden eagle is a year-round resident throughout much of California. The species does not breed in the center of the Central Valley but breeds in much of the rest of the state. Golden eagles forage in open grassland habitats, and preferred territory sites include those that have a favorable nest site, a dependable food supply (medium to large mammals and birds), and broad expanses of open country for foraging. Hilly or mountainous country where takeoff and soaring are supported by updrafts is generally preferred to flat habitats. There are no CNDDB records of golden eagle nests within the project area. However, an active nest was recorded in November 2014 in El Dorado Hills approximately 2.5 miles south-southeast of the project site in an open area north of US Highway 50.

Observed bird species at the project site include mourning dove, northern mockingbird, red-tailed hawk, turkey vulture, and wild turkey (Table D-2 in Appendix D).

WILDLIFE

Observed species at the project site include mourning dove, northern mockingbird, red-tailed hawk, turkey vulture, wild turkey, California vole, desert cottontail, mule deer (deceased), mosquito fish, western fence lizard, and western rattlesnake (Table D-2 in Appendix D). The

[4] Status: CNPS 1B.2 - Rare/endangered (see Table D-1 in Appendix D).
[5] Status: CNPS 1B.2 - Rare/endangered (see Table D-1 in Appendix D).

proposed project is not in a County-designated "Important Biological Corridor" (El Dorado County 2004). There are no deer migration corridors on the project site (El Dorado County 2008).

The Mormon Island Wetland Preserve, through which the seasonal stream on-site flows, supports many species of wildlife dependant on freshwater marsh and/or riparian habitat for foraging and rearing young. The Preserve also supports a high level of bird species diversity (Reclamation 2009).

3.2.2 REGULATORY SETTING

FEDERAL

The federal Endangered Species Act (ESA) of 1973 and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems on which they depend. The USFWS (with jurisdiction over plants, wildlife, and resident fish) and the National Marine Fisheries Service (NMFS) (with jurisdiction over anadromous fish and marine fish and mammals) oversee the ESA. Section 9 of the ESA prohibits the take of any fish or wildlife species listed as endangered, including the destruction of habitat that prevents the species' recovery. Take is defined as the action of or attempt to hunt, harm, harass, pursue, shoot, wound, capture, kill, trap, or collect a species. Section 9 prohibitions also apply to threatened species unless a special rule has been defined with respect to take at the time of listing. Section 10 of the ESA requires the issuance of an incidental take permit before any public or private action may be taken that would potentially harm, harass, injure, kill, capture, collect, or otherwise hurt (i.e., take) any individual of an endangered or threatened species.

Clean Water Act

The federal Clean Water Act (CWA) was enacted as an amendment to the federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the United States. The CWA serves as the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. The following summarizes information on specific CWA sections.

Permits for Fill Placement in Waters and Wetlands (Section 404)

CWA Section 404 regulates the discharge of dredged and fill materials into waters of the United States. Waters of the United States refers to oceans, bays, rivers, streams, lakes, ponds, and wetlands, including any or all of the following: areas within the ordinary high water mark of a stream, including nonperennial streams with a defined bed and bank and any stream channel that conveys natural runoff, even if it has been realigned, and seasonal and perennial wetlands, including coastal wetlands. The USACE has determined a Section 404 permit would not be required because the wetlands would be avoided in project design (Sycamore 2015).

Water Quality Certification (Section 401)

Under CWA Section 401, applicants for a federal license or permit to conduct activities that may result in the discharge of a pollutant into waters of the United States must obtain certification from the state in which the discharge would originate or, if appropriate, from the interstate water pollution control agency with jurisdiction over affected waters at the point where the discharge would originate. Therefore, all projects that have a federal component and may affect state water quality (including projects that require federal agency approval, such as issuance of a Section 404 permit) must also comply with CWA Section 401. A Section 401 water quality

certification from the Central Valley Regional Water Quality Control Board (CVRWQCB) is not required because a Section 404 permit is not required (Sycamore 2015).

Permits for Stormwater Discharge (Section 402)

CWA Section 402 regulates construction-related stormwater discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES) program, administered by the Environmental Protection Agency (EPA). In California, the State Water Resources Control Board (State Water Board) is authorized by the EPA to oversee the NPDES program through the Regional Water Quality Control Boards (see the related discussion under Porter-Cologne Water Quality Control Act). The project area is under the jurisdiction of the CVRWQCB.

NPDES permits are required for projects that disturb more than 1 acre of land. The NPDES permitting process requires the applicant to file a public notice of intent (NOI) to discharge stormwater and to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP includes a site map and a description of proposed construction activities. In addition, it describes the best management practices (BMPs) that would be implemented to prevent soil erosion and discharge of other construction-related pollutants (e.g., petroleum products, solvents, paints, cement) that could contaminate nearby water resources. Permittees are required to conduct annual monitoring and reporting to ensure that BMPs are correctly implemented and effective in controlling the discharge of stormwater-related pollutants. Because the proposed project would disturb more than 1 acre of land, an NPDES permit and SWPPP would be required for construction activities.

Additionally, the County is in the process of implementing requirements of the State Water Board's NPDES General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4) Order No. 2013-0001-DWQ (Order). The proposed project qualifies as a "Regulated Project" as defined in Section E.12 of the Order and therefore will be required to comply with the standards provided in the Order. Section E.12 of the Small MS4 Permit is the Post-Construction Storm Water Management Program. Before issuing any permits for the project, the County (as permittee) will be responsible for ensuring the proposed project site design includes measures required under Sections E.12.a (Site Design Measures), E.12.d (Source Control Measures), E.12.e (LID Design Standards), and E.12.f (Hydromodification Measures). Other sections of E.12 address the County's responsibilities for documenting compliance with the Small MS4 Permit. In May 2015, the County also adopted Stormwater Quality Ordinance No. 5022 (County Ordinance Code Chapter 8.79), which establishes standards for construction and post-construction stormwater runoff controls to ensure compliance with NPDES requirements.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) domestically implements a series of international treaties that provide for migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds. The act further provides that it is unlawful, except as permitted by regulations "to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird" (United States Code [USC], Title 16, Section 703). This prohibition includes both direct and indirect acts, although harassment and habitat modification are not included unless they result in direct loss of birds, nests, or eggs. The current list of species protected by the MBTA can be found in the November 1, 2013 Federal Register (FR) (Code of Federal Regulations [CFR], Title 50, Section 10.13). This list comprises several hundred species, including essentially all native birds. Permits for take of nongame migratory birds can be issued only for specific activities, such as health and safety and of personal property. The USFWS publishes a list of birds of conservation concern to identify migratory nongame birds that are likely to become candidates for listing

under the ESA without additional conservation actions. The birds of conservation concern list is intended to stimulate coordinated and collaborative conservation efforts among federal, state, tribal, and private parties.

The Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) (16 USC 668) prohibits take and disturbance of individuals and nests. Take permits for birds or body parts are limited to religious, scientific, or falconry pursuits. However, the BGEPA was amended in 1978 to allow mining developers to apply to the USFWS for permits to remove inactive golden eagle (*Aquila chrysaetos*) nests in the course of "resource development or recovery" operations. With the 2007 removal of bald eagle from the ESA list of threatened and endangered species, the USFWS issued new regulations to authorize the limited take of bald eagles (*Haliaeetus leucocephalus*) and golden eagles under the BGEPA, where the take to be authorized is associated with otherwise lawful activities. A final Eagle Permit Rule was published on September 11, 2009 (74 FR 46836–46879; 50 CFR 22.26).

STATE

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Section 2050 et seq.) establishes state policy to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that state agencies should not approve projects that jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under the CESA. For projects that would affect a species that is federally and state listed, compliance with the ESA satisfies CESA requirements if the CDFW determines that the federal incidental take authorization is consistent with the CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of a species that is only state-listed, project proponents must apply for a take permit under Section 2081(b).

California Fish and Game Code

Several sections of the California Fish and Game Code apply to the proposed project and are described below: 1602, 3503, 3503.5, 3511, 3513, 3515, 4700, and 5050.

Section 1602: Streambed Alteration Agreements

Under California Fish and Game Code 1602, public agencies are required to notify the CDFW before undertaking any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, the CDFW is required to propose reasonable project changes to protect the resources. These modifications are formalized in a streambed alteration agreement that becomes part of the plans, specifications, and bid documents for the project. The applicant obtained a Streambed Alteration Agreement (SAA) for the previously approved project (Notification No. 1600-2014-0006-R2 Unnamed Seasonal Tributary to Willow Creek) in June 2014. The CDFW will either revalidate the current SAA or request that the applicant submit a new notification (Sycamore 2015).

Sections 3503 and 3503.5: Birds and Raptors

Section 3503 of the California Fish and Game Code prohibits the killing of birds and the destruction of bird nests. Section 3503.5 prohibits the killing of raptor species and the destruction of raptor nests. Trees and shrubs in and adjacent to the project area provide suitable nesting habitat for birds and raptors.

Sections 3511, 3515, 4700, and 5050: Fully Protected Species

The California Fish and Game Code provides protection from take for a variety of species, referred to as fully protected species. Section 5050 lists fully protected amphibians and reptiles; Section 3515 lists fully protected fish; Section 3511 lists fully protected birds; and Section 4700 lists fully protected mammals. The California Fish and Game Code defines take as "an action to hunt, pursue, catch, capture, or kill or an attempt to hunt, pursue, catch, capture, or kill." Except for take related to scientific research, all take of fully protected species is prohibited.

Section 3513: Migratory Birds

California Fish and Game Code Section 3513 prohibits the take or possession of any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

California Native Plant Protection Act

The California Native Plant Protection Act (CNPPA) of 1977 prohibits importation of rare and endangered plants into California, take of rare and endangered plants, and sale of rare and endangered plants. The CESA defers to the CNPPA, which ensures that state-listed plant species are protected when state agencies are involved in projects subject to CEQA. In this case, plants listed as rare under the CNPPA are protected under CEQA, not under the CESA. Because the proposed project has potential to adversely affect rare and endangered plants, surveys for these plants and mitigation for any effects are required and are discussed in this document.

Porter-Cologne Water Quality Control Act

California Water Code Section 13260 requires "any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements)." Under the Porter-Cologne Act definition, waters of the state are "any surface water or groundwater, including saline waters, within the boundaries of the state." Although all waters of the United States within the borders of California are also waters of the state, the reverse is not true. Therefore, California retains authority to regulate discharges of waste into any waters of the state, regardless of whether the USACE has concurrent jurisdiction under CWA Section 404. If the USACE determines that a wetland is not subject to regulation under Section 404, CWA Section 401 water quality certification is not required. As noted above, the USACE has determined a Section 404 permit would not be required; therefore, a Section 401 water quality certification is not required.

LOCAL

El Dorado County General Plan

The 2004 El Dorado County General Plan (El Dorado County 2004) Conservation and Open Space Element includes several policies concerning biological resources. These policies, along with an analysis of the project's consistency with those policies, are presented in Impacts BIO-6 and BIO-8, below.

The project site is not in a designated "Important Biological Corridor" or "Ecological Preserves" overlay in the El Dorado County General Plan.

County of El Dorado Design and Improvement Standards Manual

The County's Design and Improvement Standards Manual identifies required erosion and sediment control measures that are applicable to subdivisions, roadways, and other types of developments. The purpose of these control measures is to ensure that projects minimize the potential for discharging sediment into waterways to protect water quality. Volume III: Grading, Erosion and Sediment Control describes the criteria for determining whether an erosion and sediment control plan is required. When required, an erosion and sediment control plan must comply with the adopted Western El Dorado County Storm Water Management Plan.

3.2.3 IMPACTS AND MITIGATION MEASURES

METHODS OF ANALYSIS

The description of existing conditions and impact analysis presented in this section is based on several studies that have been prepared for the project (Sycamore 2007, 2013a, 2015). These studies included site surveys in 2007, 2013, and 2015 and the results of USFWS, CDFW, and CNDDB species list reviews. Other sources of information included a preliminary jurisdictional delineation (Sycamore 2013a), USACE jurisdictional determination (USACE 2013) and related correspondence, and the CDFW Final Streambed Alteration Agreement (CDFW 2014).

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines, the proposed project would be considered to have a significant effect if it would result in any of the conditions listed below:

- 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 CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as the County General Plan oak canopy retention standards.

- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

- Substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

PROJECT IMPACTS

Special-Status Plants

Impact BIO-1 The proposed project would not impact any special-status plant species. (**No Impact**)

Blooming-period surveys for special-status plants that have the potential to occur on-site were performed in April and May 2013 and April 2015. No special-status plants were found. The proposed project would have no impact on special-status plants.

Mitigation Measure

None required.

Special-Status Raptors and Migratory Birds

Impact BIO-2 The proposed project could affect special-status raptors and birds protected under the Migratory Bird Treaty Act. **(Potentially Significant)**

The federal MBTA and California Fish and Game code prohibit take of most species of birds. Birds are most vulnerable when nesting, and depending on species, birds may nest almost anywhere including trees/shrubs/grass, buildings, and culverts. The nearest CNDDB record of a special-status bird nest is that of a pair of bald eagles at the Folsom Lake SRA recorded in February 2015. The nest may be on the other side of a small ridge in the SRA. One large cottonwood tree at the site could provide potential nesting habitat for Swainson's hawk and white-tailed kite. No nests were observed in the tree in 2013 or 2015 (Sycamore 2015). The cottonwood tree would be retained. Utilization of the project site by Swainson's hawk is unlikely, however, because it is near the edge of the Swainson's hawk range, there are no substantial agricultural areas nearby that could provide foraging habitat, and the closest nesting record is 2.5 miles away (Sycamore 2015). Birds protected by the MBTA or Fish and Game Code could nest anywhere at the project site, including in trees and shrubs or on the ground. Therefore, there is the potential the proposed project could result in disturbance of nesting birds, which would be a potentially significant impact.

Mitigation Measure

MM BIO-2 **Preconstruction Surveys and Protection/Avoidance Measures.** If construction begins outside the 1 February to 31 August breeding season, there will be no need to conduct a preconstruction survey for active bird and raptor nests. If construction is scheduled to begin between 1 February and 31 August, then a qualified biologist shall conduct a preconstruction survey for active nests at the construction site. In order to avoid take (Fish and Game Code Section 86) of protected birds and raptors (Fish and Game Code Sections 3503, 3503.5, 3511, and 3513), a preconstruction bird and raptor nest survey shall be conducted within 10 days prior to the beginning of construction activities by a California Department of Fish and Wildlife (CDFW)-approved biologist in order to identify active nests in the project site vicinity. The results of the survey shall be submitted to the CDFW and County of El Dorado Development Services Division. If active raptor nests are found, a quarter-mile (1,320 feet) initial temporary nest disturbance buffer shall be established. If active passerine nests are found, a 200-foot (500 feet for special-status species) initial temporary nest disturbance buffer shall be established. If project-related activities within the temporary net disturbance buffer are determined to be necessary during the nesting season, then an on-site biologist/monitor experienced with the species' behavior shall be retained by the project proponent to monitor the nest and shall, along with the project proponent, consult with the CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed to proceed within the temporary nest disturbance buffer if birds/raptors are not exhibiting agitated behavior. In consultation with the CDFW and depending on the behavior of the birds/raptors, over time it may be determined that the on-site biologist/monitor may no longer be necessary due to the birds/raptors' acclimation to construction-related activities. The proposed actions shall be included in a work plan, approved by the CDFW, and submitted to the County of El Dorado Development Services Division. Take of a nesting bird listed under the California Endangered Species Act would require an incidental take permit.

Timing/Implementation: Prior to grading.

Enforcement/Monitoring: County of El Dorado Development Services Division

It should be noted CDFW staff reviewed this mitigation measure when it was proposed in the mitigated negative declaration (MND) for the previous project, and the text of this mitigation measure incorporates previous CDFW recommendations. By requiring preconstruction surveys and protection/avoidance measures in consultation with the CDFW, implementation of Mitigation Measure MM BIO-2 would reduce impacts to a less than significant level.

Riparian Habitat

Impact BIO-3 The proposed project could result in impacts on riparian habitat on-site as a result of riparian vegetation removal. **(Potentially Significant)**

The proposed project would remove six Fremont cottonwood trees and three willow trees (two red willows and one Goodding's black willow) and would result in ground disturbance within the riparian habitat along the seasonal stream (see Figure 3.2-2). This is considered a potentially

significant impact of the project. However, the applicant will be required to implement several measures, described below, to reduce impacts on riparian habitat.

The project applicant previously obtained an SAA for the proposed project (Notification No. 1600-2014-0006-R2 Unnamed Seasonal Tributary to Willow Creek). The purpose of the SAA is to minimize potential adverse impacts on biological resources. The components of the project covered by the SAA are installation of the storm drain pipe and outfall to the seasonal stream, construction of a contoured retaining wall along the southern edge of the developed footprint to isolate the structures on-site from the wetland/stream area, and removal of nine trees and temporary disturbance of some associated riparian habitat to allow for construction on-site, which would be mitigated through implementation of a revegetation plan using native plant species (described below). The SAA contains avoidance and minimization measures that must be implemented. These include when the work may be performed, protection of bird nests, limits on how vegetation removal may be performed, sediment control, and pollution control. It also identifies reporting procedures.

The proposed project's landscape plan includes retaining some existing trees, as shown in Figure 3.2-2, and plantings in areas that would be disturbed between the screen/retaining wall and to within 10 feet of the seasonal stream. The landscape plan (Figure 2.0-8) includes cedar and native oaks on the south and east side to buffer views into the project from the east and south sides. Willow trees, native to the riparian area, would also be planted along the southern boundary. Other plantings would include shrubs and groundcovers.

A revegetation plan was prepared for the previously approved project and submitted to the CDFW in January 2014 as part of the Notification of Lake or Streambed Alteration Agreement for the proposed project.[6] The planting elements of the revegetation plan (types and numbers of plants) have been incorporated into the proposed landscape plan (Figure 2.0-8), which reflects the current proposed site design. The five elements of the original revegetation plan listed below (prior to planting, revegetation planting, monitoring and reporting, success criterion, and contingency) have been modified accordingly to reflect the new site design.

Updated Revegetation Plan (2015)

Prior to Planting

Construction fencing shall be installed between the edge of construction disturbance and the seasonal stream to keep equipment out of the seasonal stream. The project will file a Notice of Intent (NOI) with the SWRCB to comply with the State Construction General Permit and prepare a SWPPP that includes BMPs for erosion and sediment control.

Revegetation Planting

The revegetation plan consists of native riparian trees, including 25 willows, 6 cottonwoods, and 3 oaks. The trees shall be planted around the seasonal wetland. No equipment shall be allowed in the seasonal stream. The recommended tree sizes are appropriate for planting with hand tools to minimize disturbance. They should be planted

[6] "Riparian Re-Vegetation Plan for Conditions of Approval 6 and 7 of the Green Valley Convenience Center Project, El Dorado County, CA (PD12-0003)," dated December 17, 2013 (Sycamore 2013b).

in mid- to late fall, when the plants are entering their winter dormant period, no later than one year after the initiation of construction. Irrigation is expected to be unnecessary with fall planting, because the site contains water until at least mid-summer, and adequate root systems will have developed over the spring and early summer. All of the cottonwoods shall be planted at least 60 feet away from the project footprint and Sophia Parkway.

REVEGETATION PLANTING

Common Name	Scientific Name	Quantity	Size
Red willow	Salix laevigata	16	5 gallon
Fremont cottonwood	Populus fremontii	6	Tree pot 4
Sandbar (coyote) willow	Salix exigua	6	Dee pot 40
Goodding's black willow	Salix gooddingii	3	Tree pot 4
Valley oak	Quercus lobata	3	Tree pot 4
Total		34	

Monitoring and Reporting

The revegetation plantings shall be monitored annually, in the late summer or early autumn. The number and species of surviving trees shall be counted and their condition and general health recorded. A monitoring report of the number and condition of surviving trees shall be made annually, no later than December 31, to the County and CDFW. The monitoring report shall discuss the overall site conditions, compare the surviving trees to the success criterion, and recommend contingency measures if appropriate.

Success Criterion

The success criterion shall be the survival of 18 riparian trees five years after planting.

Contingency

The following measures may be appropriate if, based on the monitoring, it appears the success criterion will not or is unlikely to be met:

1) Additional plantings of appropriate native trees may be made upon approval from the County and CDFW.

2) Purchase of credits in a mitigation/conservation bank, upon approval from the County and CDFW.

3) Contribution to a fund that implements natural resources conservation/restoration upon approval from the County and CDFW.

4) Other contingency actions approved by the County and CDFW.

Mitigation Measure

MM BIO-3

a. Best management practices that conform with the County's California Stormwater Pollution Prevention Plan, issued by the State Water Resources Control Board for erosion and sediment control, shall be incorporated into the project development plans and implemented as approved by Building Services during the grading permit process.

b. No equipment shall be allowed within the seasonal stream.

c. Construction fencing shall be installed between the edge of construction disturbance and the seasonal stream to prevent and avoid accidental fill and/or equipment entering the setback and creek. The fencing shall be installed prior to initiation of any grading.

d. The project applicant shall have the current Streambed Alteration Agreement issued by the CDFW revalidated, or the applicant shall submit a new Section 1600 notification to the CDFW. A grading permit shall not be issued until documentation has been provided to the County that the existing Streambed Alteration Agreement has been revalidated, or that a Streambed Alteration Agreement is not required by the CDFW.

e. Within one year of the initiation of project construction, the project applicant shall implement the revegetation plantings identified in the project landscaping plan (Figure 2.0-8 in the Draft EIR) and implement the Updated Revegetation Plan (2015) described in this Draft EIR.

f. Proof of planting shall be submitted to County of El Dorado Development Services Division prior to final inspection. The revegetation plantings shall be monitored annually, in the late summer or early autumn. The number and species of surviving trees shall be counted and their condition and general health recorded. A monitoring report of the number and condition of surviving trees shall be made annually for a period of five years, no later than December 31, to the County and the CDFW. The monitoring report shall discuss the overall site conditions, compare the surviving trees to the success criterion, and recommend contingency measures if appropriate.

Timing/Implementation: Prior to grading during construction, and post-construction.

Enforcement/Monitoring: County of El Dorado Development Services Division

Implementation of Mitigation Measure MM BIO-3 would ensure no net loss of riparian habitat, which would reduce impacts to a less than significant level. It should be noted the SWPPP and BMPs (Mitigation Measure MM BIO-3[a]) are mandatory requirements to comply with state and county regulations. They were identified as a requirement in the 2014 revegetation plan, which was submitted to CDFW with the SAA, and have been included in the mitigation measure for completeness.

Impact BIO-4 The proposed project could affect on-site or off-site riparian habitat water quality. **(Potentially Significant)**

On-Site Construction Impacts

Construction of the proposed project would involve soil disturbance that could be a source of sediment and pollutants into the seasonal stream, if not properly managed, which could affect species supported by the seasonal stream and associated riparian habitat. This is a potentially significant impact.

The proposed project would not result in any modification or fill of the seasonal stream. However, grading would occur 10 feet from the seasonal stream at the nearest point, and there could be temporary impacts 6 feet from the seasonal stream at its nearest point (see Impact BIO-6). The screen/retaining wall would be 30 feet from the seasonal stream at the nearest point. The graded slope between the screen/retaining wall and the seasonal stream would be planted with native trees and shrubs.

The project would be required to obtain coverage under the Statewide General Construction NPDES Permit, which requires projects to develop and implement an SWPPP that include BMPs and requires inspection of stormwater control structures and pollution prevention measures. The project's grading plan will be required to be prepared and designed to meet the County of El Dorado Grading, Erosion, and Sediment Control Ordinance.

The following is a list of the BMPs that the project would be required to adhere to as a part of the grading permit requirements by County Code. The Building Services Plan Checker will review the submitted grading plan and verify that the plan includes BMPs consistent with the County's California SWPPP issued by the State Water Resources Control Board, prior to grading permit issuance:

Erosion Control	Sediment Control	Tracking Control	Other Controls
Hydroseeding	Silt Fence	Stabilized Construction Entrance	Water Conservation Practices
Straw Mulch	Fiber Rolls	Waste Management	Vehicle and Equipment Cleaning
Geotextiles and Mats	Gravel Bag Berm	Material Delivery and Storage	Vehicle and Equipment Maintenance
	Street Sweeping and Vacuuming	Material Use	

With implementation of the required SWPPP and BMPs, limiting where equipment may be used relative to the seasonal stream, placement of construction fencing, and revalidation of the SAA (or new notice) as identified in Mitigation Measure MM BIO-3(a) through 3(d), respectively, construction water quality impacts would be less than significant.

On-Site Operational Impacts

The proposed project would generate stormwater runoff that would be conveyed through the project's storm drain system and would discharge into the seasonal stream on the west side of the parcel, as shown in Figure 2.0-9. The culvert conveying flows would be approximately 22 feet long with a 12-inch diameter. It would have a concrete headwall and rip-rap apron. The purpose of the rip-rap apron is to dissipate the energy of stormwater flows to minimize the

potential for erosion at the outfall. The rip-rap apron would be approximately 24 feet from the seasonal stream at the nearest point.

The stormwater discharged from the proposed project could be a source of pollutants such as oil/grease, spilled fuel, metals, sediment, trash, and cleaning and maintenance products, all of which have the potential to affect water quality in the seasonal stream or wetland, if measures are not in place to control these materials at the source. However, water quality in the stream that supports the riparian habitat would be protected through implementation of state regulations and County standards that require source control and treatment controls to be included in project design. In addition to the project's storm system design that would result in no net increase in stormwater flows compared to predevelopment conditions, the project design also includes several BMPs to prevent pollutants from contacting stormwater so that runoff from the site does not contaminate the seasonal creek. These source control features included in project design are:

- Fuel-Dispensing Area: The fueling island would consist of a concrete slab and canopy with a hydraulically isolated drainage system. The drainage system would be a concrete swale directing any fuel spill or stormwater runoff to a perimeter trench drain that discharges into an oil/water separator with an emergency shut-off valve. Any discharge that flows through the oil/water separator and perimeter trench drain would drain to the sanitary sewer system, not the storm drain system.

- Car Wash: The car wash would have a permanent roof and would include floor materials consisting of concrete to prevent infiltration of polluted wash water. It would have an independent and isolated drainage system that would discharge to the sanitary sewer, not the storm drain.

- Trash Enclosure: The trash enclosure, which would be on the west side of the site (see Figure 2.0-2), would be constructed with a material base that is impervious to spills, and would be covered with a permanent roof. The area would have an independent and isolated drainage system that would discharge to the sanitary sewer. This would minimize the potential for trash in the seasonal stream and seasonal wetland, and liquid waste (if any) from the waste receptacles would go to the sewer, not the storm drain system.

- Storm Drain Signage: Storm drain message markers would be placed at all storm drain inlets within the project site.

- The proposed project would also include a special stormwater quality treatment device (StormFilter®) sized for the rate and amount of runoff from the site. This type of treatment device consists of an underground vault with a filter media that traps pollutants such as hydrocarbons, metals, and other common pollutants in runoff.

Before the County issues a grading permit for the project, it will require the applicant to provide a detailed site plan identifying where each of these specific stormwater quality BMPs will be located, along with hydrologic and hydraulic calculations showing how stormwater would be managed in accordance with the Phase II Small MS4 General Permit (Order No. 2013-0001-DWQ) Section E.12 (Post-Construction Storm Water Management Program). In particular, the effectiveness of the StormFilter system in achieving pollutant removal efficiencies in accordance with Section E.12 will need to be demonstrated to the satisfaction of the County.

In addition, on the south side of the car wash access driveway where there would be a short screen/retaining wall (which would also help minimize the potential for stormwater and trash to

be carried toward the seasonal stream), the site would be graded and sloped toward the creek. Riparian vegetation and erosion control vegetation would be planted along the bottom half of the slope. The graded slope would be approximately 10 feet from the seasonal stream at the nearest point. Erosion control vegetation would also be extended around the east side of the site. Figure 2.0-8 shows the proposed landscape plan, which includes the updated revegetation plan components.

Implementation of the design features described above to ensure compliance with state and County requirements for post-construction runoff water quality, along with the riparian plantings and erosion control, as required in the updated revegetation plan (Mitigation Measures MM BIO-3[e] and MM BIO-3[f]) would reduce impacts to a less than significant level.

Off-Site Impacts

The proposed project would not result in the removal of any riparian vegetation at the potential off-site fill source locations. The source of fill material for the project would be soil stockpiles either from a site directly west of the project or north of Green Valley Road at the MIAD construction site. A separate grading permit would be required for either location. In order to obtain the permit, the project applicant would be required to submit a SWPPP and implement BMPs, as described for on-site construction impacts, above. For the potential fill site west of Sophia Parkway, this would ensure that sediment and other pollutants are not conveyed to the seasonal stream at the off-site locations. A Streambed Alteration Agreement would not be required for either off-site fill site because it would not affect the seasonal stream.

As described above, the proposed project would implement water quality protection measures as part of project design. This would reduce the potential for project stormwater discharges generated on-site to adversely affect off-site downstream water quality in the Mormon Island Wetland Preserve. The on-site source control features would ensure that riparian habitat along the seasonal stream and the species it supports, as well as wetland areas further downstream, would not be adversely affected by implementation of the proposed project as a result of stormwater runoff during operation. Impacts would be less than significant, and no mitigation measures are required for off-site impacts.

Mitigation Measure

Implement Mitigation Measure MM BIO-3.

Wetlands

Impact BIO-5 The proposed project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marshes, vernal pools, and coastal wetlands) through direct removal, filling, hydrological interruption, or other means. (**No Impact**)

The proposed project has been designed to avoid the seasonal stream and seasonal wetland on the project site. The applicant obtained a Jurisdictional Determination from the USACE in 2013 that concurred with the amount and location of the 0.47 acre of wetlands and other water bodies. In its review of the previously approved project, USACE staff's primary concern was that no direct filling of the stream inside the high water mark occurs and that there is no filling of the wetland. USACE staff has reviewed the currently proposed project and, as with the previous

project, determined no fill would occur and a Section 404 permit would not be required (Sycamore 2015). There would be no impact.

Mitigation Measure

None required.

Impact BIO-6 The proposed project would be within a 50-foot interim standard setback for wetlands established in County General Plan Policy 7.3.3.4. **(Potentially Significant)**

El Dorado County General Plan Policy 7.3.3.4 identifies 50 feet as an interim standard setback from intermittent channels and wetlands until the zoning ordinance is amended with final setbacks. The proposed project would result in grading and permanent hardscape within 50 feet of the seasonal stream and seasonal wetland, as shown on **Figure 3.2-3**. The following project components would be within 50 feet of the seasonal stream and wetland:

- A graded slope that will be replanted with native trees and shrubs along the bottom half of the slope. The graded slope would be approximately 10 feet from the seasonal stream at the nearest point. Temporary impacts during construction are estimated to extend 4 feet beyond the grading limit. Temporary impacts may be within 6 feet of the seasonal stream at the nearest point.

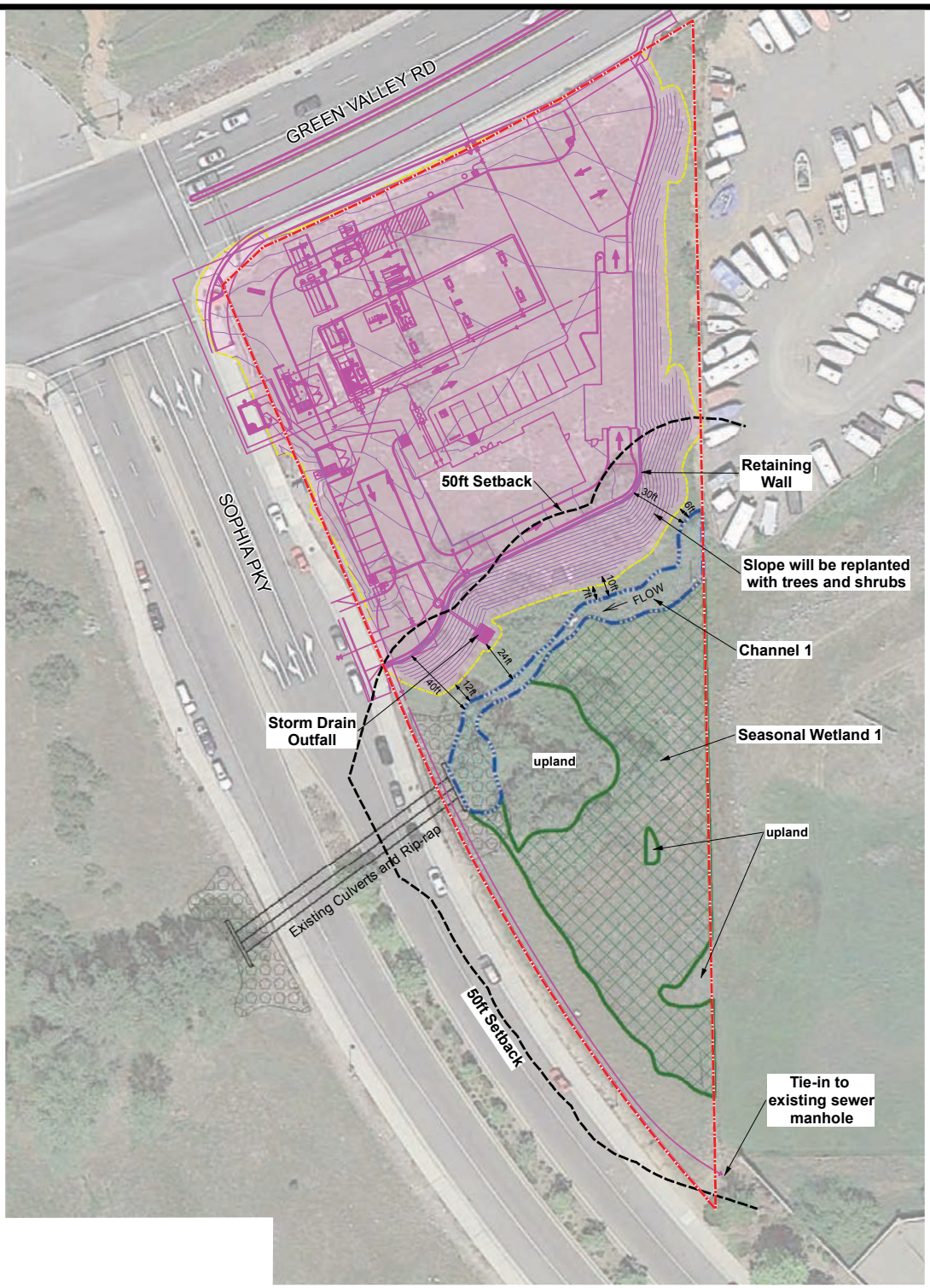
- A screen/retaining wall at the top of the slope. The screen/retaining wall would be approximately 30 feet from the seasonal stream at the nearest point. Behind the screen/retaining wall there would be hardscaping, including drive aisles and curbs/gutters. Stormwater runoff from this area would drain to the project filtration and detention system.

- A stormwater culvert outfall with concrete headwall and rip-rap apron. The rip-rap apron will be approximately 24 feet from the seasonal stream at the nearest point. Existing vegetation around the edge of the outfall would be retained, and native trees and shrubs would be planted on the nearby graded slope. The project includes a stormwater system that meets regulations for fueling facilities.

- A sewer line along the edge of Sophia Parkway would connect to an existing manhole near the south end of the project parcel. The sewer line would be installed in the engineered road prism, over the top of the culvert that conveys the seasonal stream under Sophia Parkway. The road prism above the culvert is covered with existing rip-rap. The sewer line would be underground, and post-construction conditions around the sewer line would be the same as existing.

Project development activities within the 50-foot interim setback would remove vegetation and involve ground-disturbing activities, which would be a potentially significant impact.

T:_CS\Work\El Dorado, County of\Green Valley Road Gas Station\Figures



Source: Sycamore Environmental Consultants, inc.

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Figure 3.2-3
Grading and Wetland Setback

Michael Baker INTERNATIONAL

Alternative Setback Analysis

Policy 7.3.3.4 specifies that the interim standard setback may be modified based on project-specific information if the project "demonstrates that a different setback is necessary or would be sufficient to protect the particular riparian area at issue." The project site is constrained by Sophia Parkway on the west, Green Valley road on the north, and the seasonal stream and wetland on the south. Where exceptions are allowed, impacts on the resources still need to be minimized. The County adopted Interim Interpretive Guidelines for Policy 7.3.3.4 in June 2006, and the County's site assessment form identifies the protected attributes of channels and wetlands that must be considered.

The following responds to items (a) through (g) of the County Site Assessment Form for General Plan Policy 7.3.3.4 (Sycamore 2015).

a. Riparian Vegetation: The proposed project, with or without the proposed reduced setback, would require removal of riparian vegetation. Six Fremont cottonwood trees are proposed for removal outside of the 50-foot standard setback. Three additional trees, two red willows and one Goodding's black willow, are also proposed for removal within the 50-foot setback. The proposed project would also remove Himalayan blackberry, which commonly occurs in riparian areas, but is a nonnative invasive weed with ecological impacts rated "high" by the California Invasive Plant Council (Cal-IPC). Mitigation Measure MM BIO-3(e) would mitigate impacts on riparian vegetation by planting 34 replacement riparian trees. The trees chosen for replanting are native species, and were chosen for their suitability as riparian vegetation. Of these trees, at least 18 (two replacement trees for every tree removed) will be required to survive the five-year monitoring period.

b. Creeks or Streams: The proposed project would avoid the seasonal stream.

c. Wetlands or Lakes: The proposed project would avoid the seasonal wetlands. The seasonal wetland is south of the seasonal stream. Proposed project components are north of the seasonal stream.

d. Wildlife Movement/Migration: The proposed project would not impact wildlife movement or migration. The project footprint is bound by one four-lane road that carries a substantial amount of traffic on the north and by another road on the west, and existing development on the east. The edge of an existing residential development is approximately 200 feet south of the southernmost point of the project site. The seasonal stream exits the site on the west through an approximately 130-foot-long culvert under Sophia Parkway. The RV/boat storage yard extends to near the edge of the seasonal stream on the east side of the site. Much of the seasonal stream, and part of the wetland, is covered with invasive Himalayan blackberry. Himalayan blackberry may create barriers to water access for wildlife, its spines can cause injury, and it can attract rats that impact birds. Himalayan blackberry can also have a positive effect on wildlife as forage, and nesting/sheltering habitat. Overall, Cal-IPC considers wildlife impacts of Himalayan blackberry as moderately negative. As a result of the roads, surrounding development, culvert, and Himalayan blackberry, existing conditions preclude the project site from having significant value for wildlife movement or migration. The proposed project is not in a County designated "Important Biological Corridor." The proposed project would avoid fill of the seasonal stream

and would replant riparian vegetation along the seasonal stream corridor. The proposed project would not impact the small value the stream currently has for wildlife movement or migration.

e. Special-Status Species: The proposed project could impact nesting birds regulated by the federal MBTA or state Fish and Game Code with or without the proposed reduce setback. Mitigation Measure MM BIO-2 would avoid and minimize potential impacts to nesting birds.

f. Best Management Practices (BMPs): Because the proposed project would disturb more than 1 acre, it will be required to prepare and file an NOI with the Regional Water Quality Control Board for a Construction General Permit and prepare and implement a SWPPP. The SWPPP will identify construction BMPs prepared by a qualified SWPPP developer. Before the County issues a grading permit for the project, it will require the applicant to provide a detailed site plan identifying where each of these specific stormwater quality BMPs will be located, along with hydrologic and hydraulic calculations showing how stormwater would be managed in accordance with the Phase II Small MS4 General Permit (Order No. 2013-0001-DWQ) Section E.12 (Post-Construction Storm Water Management Program). In particular, the effectiveness of the StormFilter system in achieving pollutant removal efficiencies in accordance with Section E.12 will need to be demonstrated to the satisfaction of the County. Operation of the proposed project will also follow the Western El Dorado County Storm Water Management Plan design standards for fuel-dispensing areas.

g. Prior County Approval: The County approved a similar setback for the previous project in 2013 (SCH #2013062011). The CDFW signed a Streambed Alteration Agreement for the previous project with the similar setback dated June 2, 2014 (1600-2014-0006-R2). A Streambed Alteration Agreement may be necessary when work occurs near a channel. The setback distances for grading and temporary impacts of the current proposed project are within 1 foot of those requested for the previous project that was approved. The setback distances for hardscape of the current proposed project (24 feet to stormwater outfall and 30 feet to other hardscape) are substantially greater than for the previously approved project (11 feet to retaining wall). A reduced setback is necessary due to site constraints. The proposed project's avoidance of most existing riparian vegetation, and replanting of riparian vegetation that is removed, will protect the riparian corridor. Direct impacts to the seasonal stream and wetland would be avoided.

Although a different setback is necessary, implementation of the controls, permits, and Mitigation Measures MM BIO-2 and MM BIO-3, described herein, demonstrates that such measures would protect the riparian area and would minimize environmental impacts to levels that would be less than significant.

Mitigation Measure

Implement Mitigation Measures MM BIO-2 and MM BIO-3.

Wildlife Movement

Impact BIO-7 The proposed project could result in impacts on wildlife movement. **(Less than Significant)**

The project footprint is bound by one four-lane road that carries a substantial amount of traffic on the north and by another road on the west, existing commercial development on the east, and residential development on the south. The seasonal stream exits the site on the west through an approximately 130-foot-long culvert under Sophia Parkway. The RV/boat storage yard extends to near the edge of the seasonal stream on the east side of the site. Much of the seasonal stream, and part of the wetland, is covered with invasive Himalayan blackberry. Himalayan blackberry may create barriers to water access for wildlife, its spines can cause injury, and it can attract rats that impact birds. Himalayan blackberry can also have a positive effect on wildlife as forage, and nesting/sheltering habitat. Overall, Cal-IPC considers wildlife impacts of Himalayan blackberry as moderately negative. As a result of the roads, surrounding development, culvert, and Himalayan blackberry, existing conditions preclude the project site from having significant value for wildlife movement or migration (Sycamore 2015). The proposed project is not in a County-designated "Important Biological Corridor." Impacts would be less than significant.

Mitigation Measure

None required.

Local Policies Protecting Biological Resources

Impact BIO-8 The proposed project would be consistent with General Plan policies protecting biological resources. **(Potentially Significant)**

The following General Plan policies are applicable to the proposed project. The project's consistency with the policies is provided immediately following each policy. While County staff has done its best to ascertain consistency, the Board of Supervisors will make the ultimate decision regarding consistency with the General Plan.

> *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. For wetlands, the delineation shall be conducted using the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual.*

Consistency Analysis: A wetland delineation was prepared for the proposed project as part of the original project application. Although the fast-food component of the project has been removed, the ground disturbance footprint is identical for the proposed project. The wetland delineation was submitted to the USACE for verification in May 2013. The USACE issued a letter verifying the amount of wetlands on the site. The delineation is valid for a period of five years. Subsequent to the verification letter, USACE staff also determined the project would not require a CWA Section 404 permit (Sycamore 2015).

> *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.

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.

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.

Consistency Analysis: An alternative wetland setback analysis was prepared in accordance with Policy 7.3.3.4 (see Impact BIO-6). The proposed project, with or without the proposed reduced setback, would require removal of riparian vegetation. Mitigation Measure MM BIO-3 would mitigate impacts on riparian vegetation by planting 34 replacement riparian trees. The proposed project would avoid the seasonal stream and the seasonal wetland. Existing conditions on and adjacent to the project site preclude it from having significant value for wildlife movement or migration. The proposed project would avoid fill of the seasonal stream and would replant riparian vegetation along the seasonal stream corridor. The proposed project would not impact the small value the stream currently has for wildlife movement or migration. The proposed project could impact nesting birds regulated by the federal MBTA or state Fish and Game Code with or without the proposed reduce setback. Mitigation Measure MM BIO-2 would avoid and minimize potential impacts to nesting birds. The proposed project will be required to prepare and implement a construction SWPPP and implement post-construction stormwater runoff BMPs in accordance with the Phase II Small MS4 General Permit (Order No. 2013-0001-DWQ) Section E.12. Operation of the proposed project would follow the Western El Dorado County Storm Water Management Plan design standards for fuel-dispensing areas and will include an underground water quality treatment vault. The project applicant previously applied for and received a Streambed Alteration Agreement for the previous project. The project applicant will have the current Streambed Alteration Agreement issued by the CDFW revalidated, or the applicant will submit a new Section 1600 notification to CDFW. The County will not issue a grading permit until the existing Streambed Alteration Agreement has been revalidated, or CDFW indicates new notification is not required. Although the proposed project would be within the 50-foot interim setback, it would not adversely impact the riparian area with implementation of Mitigation Measures MM BIO-2 and MM BIO-3.

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.

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.

Policy 7.3.4.2: Modification of natural stream beds and flow shall be regulated to ensure that adequate mitigation measures are utilized.

Consistency Analysis: Although there is a seasonal stream and seasonal wetland in the southern part of the project site, the proposed project development footprint is north of these features and would avoid them. The graded slope leading to the seasonal stream would be approximately 10 feet from the seasonal stream at its nearest point. The graded slope would be replanted with native trees and shrubs along the bottom half of the slope, which would create a natural transition to the seasonal creek and would enhance the riparian area. Stormwater flows from the project would be discharged to the seasonal stream through an outfall. There would be no net increase in flows compared to predevelopment conditions. The wetland is south of the stream and would not be affected by project development.

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).

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.

Consistency Analysis: As described in Impact BIO-3, the riparian habitat along the seasonal creek would be maintained through implementation of Mitigation Measure MM BIO-3.

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) [Option A] the project applicant shall adhere to the tree canopy retention and replacement standards described below [Option A]; or (2) [Option B] the project applicant shall contribute to the County's Integrated Natural Resources Management Plan (INRMP) conservation fund described in Policy 7.4.2.8.

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.

Consistency Analysis: There is one blue oak along the eastern perimeter of the project site, and valley oaks south of the seasonal creek (Figure 3.2-2). There would be no disturbance in either of these areas as part of the proposed project. Because the proposed project would not result in

the removal or any individual oak trees or oak canopy, the retention and replacement requirements would not be required for the proposed project, and there would be no conflict with Policies 7.4.4.4 and 7.4.4.5.

> *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.*

Consistency Analysis: The proposed project may result in the removal of up to six Fremont cottonwoods, two red willows, and one Goodding's black willow. All of the trees removed are native riparian trees. The two red willows are near the project grading limit and have many trunks spreading horizontally near ground level. Although some of these trunks may be retained by the project, some may need to be removed, which would be a significant impact. To ensure consistency with this policy, Mitigation Measure MM BIO-3(e) would be required, as described in Impact BIO-3. Mitigation Measure MM BIO-3(e) requires planting 18 native riparian trees within one year of the initiation of project construction and monitoring to ensure success at five years. The criterion for success is the survival of all 18 trees. Implementation of Mitigation Measure MM BIO-3 would reduce this impact to a less than significant level.

Mitigation Measure

Implement Mitigation Measures MM BIO-2 and MM BIO-3.

Habitat Conservation Plans

Impact BIO-9 The proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. (**No Impact**)

There are no habitat conservation or natural community conservation plans that are applicable to the proposed project. The project site is not in a designated "Important Biological Corridor" or "Ecological Preserves" overlay in the El Dorado County General Plan. There would be no impact.

General Findings

Impact BIO-10 The proposed project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. **(Less than Significant)**

Impacts BIO-1 through BIO-5 and BIO-7 provided an evaluation of the proposed project's impacts on plant and wildlife species and habitat. There are no special-status plants on the project site (Impact BIO-1). Swainson's hawk and white-tailed kite, if present, along with other migratory birds and raptors protected under the MBTA would be protected through implementation of preconstruction surveys and protection/avoidance measures, as required in Mitigation Measure MM BIO-2. The site does not have suitable habitat for other special-status

animal species such as western pond turtle, other reptiles or amphibians, or aquatic species. The proposed project would have no effect on fish population.[7] The proposed project would result in riparian vegetation removal and construction activities near the seasonal stream (Impacts BIO-3 and BIO-4). There would be no net loss of riparian habitat or impacts on water quality in the seasonal stream with implementation of Mitigation Measures MM BIO-2 and MM BIO-3. The proposed project would avoid the seasonal wetland on the project site (Impact BIO-5). The project site provides limited wildlife habitat value (Impact BIO-7). Therefore, the proposed project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. Impacts would be less than significant.

Mitigation Measure

None required.

CUMULATIVE IMPACTS

The cumulative context for biological resources impacts comprises development in the west slope of El Dorado County identified in the updated planning horizon of the 2004 General Plan (through 2035) and other projects not specifically addressed in the General Plan planning horizon. In combination, these projects would be expected to affect sensitive biological resources throughout the west slope. Cumulative impacts for biological resources would occur where a project, when combined with cumulative projects, would contribute to a substantial loss of a sensitive biological resource, including sensitive natural communities, waters of the United States, and special-status species. Substantial loss can occur due to removing vegetation, filling drainages and wetlands, removing special-status plants, and take of special-status wildlife.

The proposed project would result in no impacts on special-status plants and wetlands or waters of the United States and therefore there would be no cumulative wetlands or waters of the U.S. impacts. The proposed project would not remove any oak trees, and therefore there would be no cumulative impact. Surrounding areas are developed with urban uses, and the project site does not have significant value for wildlife movement or migration. There would be no cumulative impacts related to wildlife movement or migration.

Cumulative projects could involve tree removal, which has the potential to affect nesting habitat for raptors and migratory birds protected under and birds protected under the MBTA. The proposed project would result in the removal of trees that could provide nesting habitat for special-status raptors, and would be required to implement preconstruction surveys and implement protection avoidance measures to protect raptors and birds (Mitigation Measure MM BIO-2), which would reduce the project's contribution to a level that would be less than cumulatively considerable. Similar measures would be required to be implemented for cumulative projects to ensure no loss of nesting habitat or take of species. The cumulative impact would be less than significant.

[7] In the SAA issued by CDFW to the applicant in 2014, the document noted the project could affect downstream warmwater and resident salmonid fish species. However, there are no fish species in the seasonal stream because it is too small, nor in Willow Creek at Lake Natoma that receives flows from the seasonal stream because Lake Natoma is impounded by Nimbus Dam. Nimbus Dam is an impassable fish barrier.

The proposed project would result in the removal of riparian vegetation. If riparian habitat is present in the cumulative project sites and is removed, this could result in a cumulative loss of riparian habitat. However, the proposed project would affect less than an acre of riparian habitat, and, with implementation of Mitigation Measure MM BIO-3, there would be no net loss of riparian habitat. Therefore, the proposed project's contribution would be less than cumulatively considerable, and the cumulative impact would be less than significant.

The water quality in perennial and/or intermittent streams that support riparian corridors and species supported by those streams could be affected by cumulative projects. The proposed project would result in stormwater discharges to the seasonal stream, but there would be no increase in the amount of flow compared to existing conditions. To protect water quality in the riparian corridor, as required by County standards, the project would include construction and post-construction BMPs to reduce pollutants. Such measures are also required by the County for cumulative projects to ensure compliance with the Small MS4 permit and Stormwater Quality Ordinance No. 5022. This would ensure the project's contribution to water quality in the seasonal stream (which could also include seasonal irrigation runoff from upstream residential development) would not be cumulatively considerable. Cumulative riparian corridor water quality impacts would be less than significant.

REFERENCES

CDFW (California Department of Fish and Wildlife). 2014. Final Streambed Alteration Agreement Notification No. 1600-2014-0006-R2 Green Valley Convenience Center.

El Dorado County. 2004. *2004 El Dorado County General Plan: A Plan for Managed Growth and Open Roads; A Plan for Quality Neighborhoods and Traffic Relief. https://www.edcgov.us/Government/Planning/Adopted_General_Plan.aspx*

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Sycamore (Sycamore Environmental Consultants, Inc.) 2007. Biological Evaluation Letter Report for Kniesel Property at Green Valley Road and Sophia Parkway (APN 067-260-98).

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———. 2013b. Riparian Re-Vegetation Plan for Conditions of Approval 6 and 7 of the Green Valley Convenience Center Project, El Dorado County, CA (PD12-0003).

———. 2015. Technical Memorandum: Biological Analysis of Alternatives for the Green Valley Convenience Center Project, El Dorado County, CA.

USACE (U.S. Army Corps of Engineers, Sacramento District). 2013. Preliminary Jurisdictional Determination for the Green Valley Convenience Center Site, SPK-2013-00141.

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4.0 PROJECT ALTERNATIVES

4.1 INTRODUCTION

OVERVIEW

An environmental impact report (EIR) must evaluate a reasonable range of alternatives to the proposed project or to the location of the proposed project that could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. The EIR must evaluate the comparative merits of the alternatives (California Environmental Quality Act [CEQA] Guidelines Section 15126.6). The EIR need not evaluate the environmental effects of alternatives in the same level of detail as the proposed project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project.

The primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained while substantially reducing or avoiding the significant environmental impacts of the proposed project. The objectives of the proposed project and environmental impacts requiring mitigation are listed below.

Alternatives included and evaluated in the EIR must be feasible alternatives. However, the Public Resources Code and the CEQA Guidelines direct that the EIR need "set forth only those alternatives necessary to permit a reasoned choice." The CEQA Guidelines provide a definition for "a range of reasonable alternatives" and thus, limit the number and type of alternatives that need to be evaluated in a given EIR. An EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative" (CEQA Guidelines Section 15126.6(f)(3)).

The Settlement Agreement established the EIR should evaluate an alternative of the installation of a full deceleration lane extending east from the intersection of Green Valley Road and Sophia Parkway, and an alternative of a "pocket lane" as previously considered by the Board of Supervisors. These alternatives are evaluated in this section based on the technical analysis of project impacts provided in Sections 3.0 through 3.2 in this Draft EIR. This alternatives analysis also considers other alternatives to meet the intent of CEQA, requiring that a reasonable range of alternatives be evaluated that could avoid or substantially lessen significant impacts of the proposed project. These alternatives are evaluated in Section 4.5, Other Alternatives Considered.

Project Objectives

The objectives of the proposed project are to:

1) Expand ARCO's presence in El Dorado County, specifically in the community of El Dorado Hills, and operate a convenience center with fueling stations, car wash, and shopping in a location where traffic volumes and customer patronage support a profitable commercial business that is a source of local tax revenue and local employment opportunities.

2) Operate a 24-hour, 7-days-a-week gas station, mini-mart, and car wash located on Green Valley Road in the El Dorado Hills area in close proximity to residential and recreational uses to provide local residents, daytime commuters, alternate shift workers, and travelers with a price-competitive option for fueling and convenience shopping.

3) Provide direct access to convenience service that is easy to see, allows patrons to maneuver to and through the fueling positions and to access other services without needing to wait or reroute excessively, and to safely and quickly reenter traffic in their direction of travel to their destination.

4) Provide the local community in the northern El Dorado Hills area with close-by and convenient access to an automated car wash that uses a recycled water system to help reduce the demand on potable water and discharges only treated effluent to the sewer system.

5) Site and design a convenience center in a manner that avoids and/or minimizes impacts on sensitive biological habitats, avoids oak woodlands, and is of a scale and architectural style that blends in with its surroundings.

6) Use vacant, underutilized land and available infrastructure where existing utility services are already available and where current adopted zoning allows for such uses.

Impact Avoidance

Alternatives should provide a means of avoiding altogether or reducing the significant environmental impacts that would otherwise result from implementation of the project. The technical analysis in Sections 3.1 (Traffic and Circulation) and Section 3.2 (Biological Resources) identified the following significant/potentially significant impacts. Each of these impacts can be mitigated to a less than significant level by mitigation measures identified in this Draft EIR.

Traffic and Circulation

Impact TRA-2 The addition of project traffic at the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection would worsen LOS F conditions under Existing Plus Approved Projects (2019) conditions.

Impact TRA-3 The proposed project would add vehicles to the Green Valley Road/Sophia Parkway westbound left-turn lane and the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection eastbound left-turn lane that would exceed available queue lengths.

Impact TRA-4 The proposed project would add vehicles to the Green Valley Road/Sophia Parkway westbound left-turn lane that could exceed available queue lengths under Existing Plus Approved Projects (2019) conditions.

Impact TRA-10 The proposed project could increase the potential for vehicle and pedestrian/bicyclist conflicts at the Green Valley Road/Sophia Parkway intersection and at the Sophia Parkway driveway.

Impact TRA-11 Construction of the proposed project could affect emergency access.

Biological Resources

Impact BIO-2 The proposed project could affect special-status raptors and birds protected under the Migratory Bird Treaty Act.

Impact BIO-3 The proposed project could result in impacts on riparian habitat on-site as a result of riparian vegetation removal.

Impact BIO-4 The proposed project could affect on-site or off-site riparian habitat water quality.

Impact BIO-6 The proposed project would be within a 50-foot interim standard setback for wetlands established in County General Plan Policy 7.3.3.4.

Impact BIO-8 The proposed project would be consistent with General Plan policies protecting biological resources.

4.2 PROJECT ALTERNATIVES

As noted above, the Settlement Agreement requires analysis of two Green Valley Road access design alternatives, which are described below. The fueling island, convenience store, car wash, and Sophia Parkway access presented in the alternatives would be identical to the proposed project. The access design assumptions for each of these alternatives are presented below.

ALTERNATIVE A (LONGER DECELERATION LANE)

Under Alternative A, the access driveway would be moved off-site to a location approximately 140 feet farther east on Green Valley Road. The total length of the bay taper and right-turn lane would be 275 feet (as compared to 135 feet with the proposed project). **Figure 4.0-1** shows this design alternative's features.

The driveway on Green Valley Road would be right-in/right-out. The 350-foot-long median included with the proposed project would be extended further east to prevent left turns out of the driveway onto Green Valley Road. An existing retaining wall and fence would need to be relocated.

ALTERNATIVES B1 AND B2 (FULL DECELERATION LANE TO AMY'S LANE)

Alternative B would eliminate the proposed project's direct access to Green Valley Road and, instead, would use Amy's Lane for access. This alternative would consist of a 450-foot-long combination of bay taper and right-turn lane to provide a full deceleration lane designed in accordance with the Caltrans Highway Design Manual for a 55 miles per hour (mph) highway.

Two design variations were considered for this alternative. Both alternatives (B1 and B2) would result in shared access on Amy's Lane, with full access to be maintained. That is, turns into or out of Amy's Lane would not be limited to right-in/right-out. There would be no median at the Amy's Lane/Green Valley Road tee intersection.

Alternative B1, shown in **Figure 4.0-2**, would have a driveway off Amy's Lane crossing two off-site properties, beginning just south of Green Valley Road.

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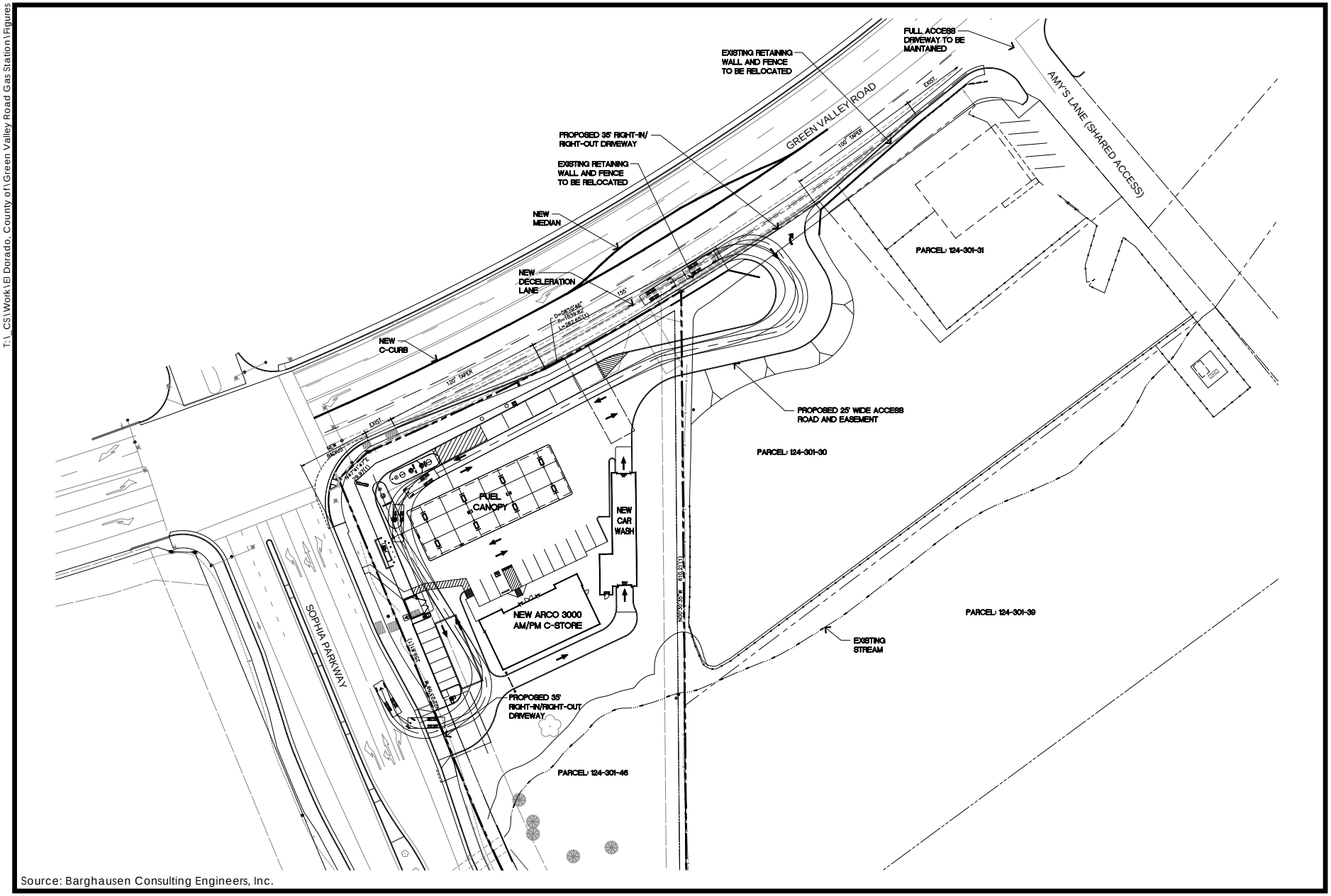

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Figure 4.0-1
Alternative A
(Longer Deceleration Lane)

Michael Baker INTERNATIONAL

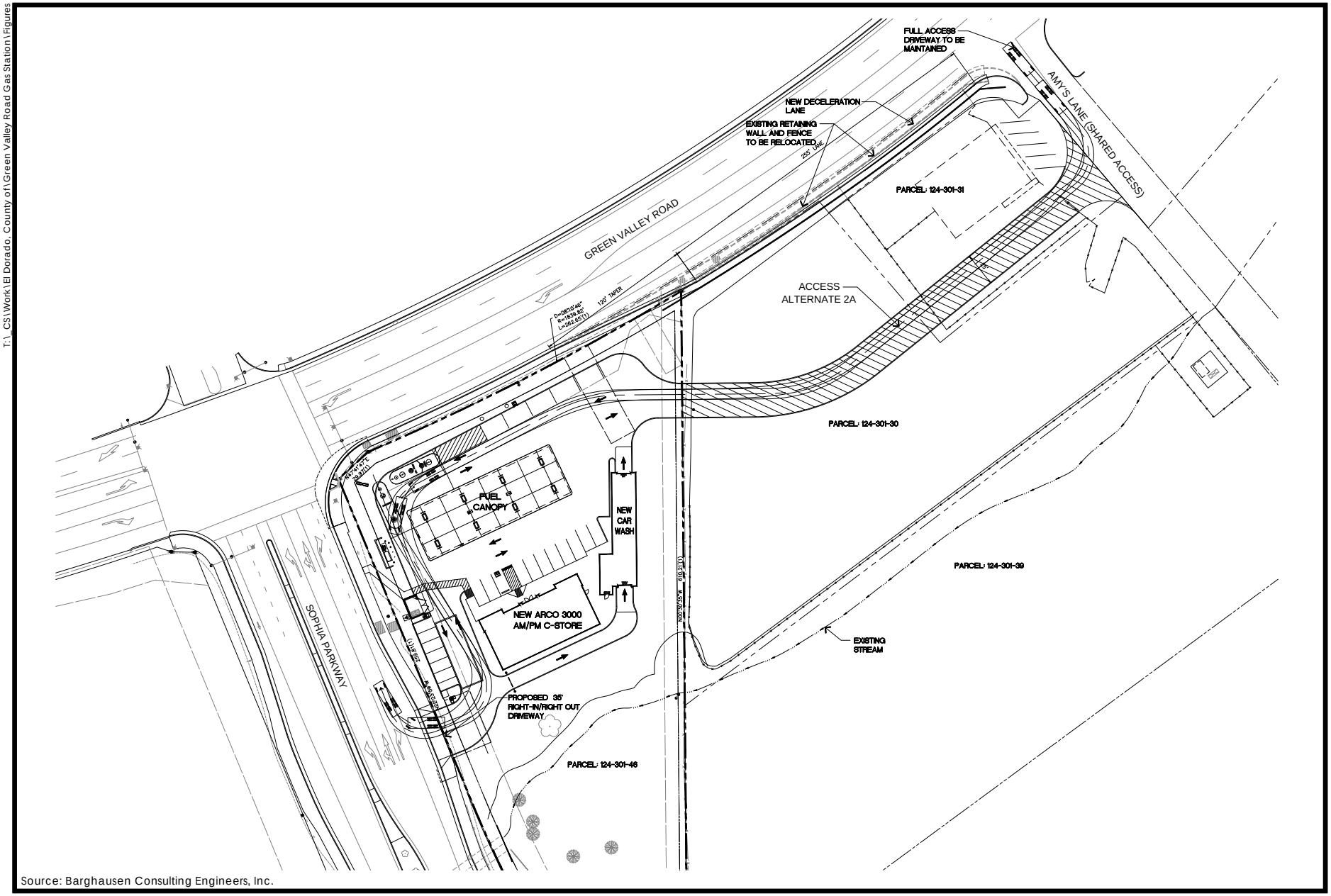

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Figure 4.0-2
Alternative B1
(Full Deceleration Lane to Amy's Lane Option 1)

Michael Baker INTERNATIONAL

Under Alternative B2, shown in **Figure 4.0-3**, the driveway off Amy's Lane would be further south than Alternative B1 and would cross one off-site property. This alternative would require a bridge to cross the stream that flows through the project site and an approximately 250-foot-long culvert extension to Sophia Parkway.

NO PROJECT ALTERNATIVE

CEQA Guidelines Section 15126.6(e)(1) requires that a No Project Alternative shall be analyzed. The purpose of describing and analyzing a No Project Alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. Two No Project alternatives were considered.

Under the No Project/No Build Alternative, the site would remain in its existing, vacant, and undeveloped condition. There would be no transportation and circulation or biological resources impacts. This alternative would not achieve any of the proposed project's objectives.

The No Project/Commercial Zoning alternative considers what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. Section 130.32.020 of the County Code of Ordinances establishes a range of nonresidential uses allowed by right in a Commercial district, including: office, bank, studio, eating and drinking establishment and used retail sale, retail repair and service exclusive of automobile service, service station, parking lot; places of entertainment, appliance store and repair (new and used), antique store and furniture store, secondhand store, when they are fully enclosed in a building; health facility; or community care facility.

The developable portion of the parcel is approximately 1.3 acres, which is necessary to avoid impacts on the seasonal stream and seasonal wetland, and to maintain consistency with General Plan Policy 7.3.3.4 and interim interpretive guidelines for wetland setbacks. It is unlikely many of the uses allowed by-right could be developed on the parcel and also provide the required amount of parking and landscaping in addition to the building footprint, and they would likely result in greater biological resource impacts than the proposed project. Some uses could generate more traffic/turning movements at the Green Valley Road/Sophia Parkway intersection (e.g., a fast food restaurant). Some uses could result in less traffic. The No Project/Commercial Zoning alternative would not achieve any of the proposed project's objectives.

4.3 ANALYSIS OF ALTERNATIVES A, B1, AND B2

The following describes the comparative impacts of the alternatives with the proposed project for the technical topics evaluated in detail in this Draft EIR: Traffic and Circulation, and Biological Resources. Table 4.0-1, at the end of this section, summarizes the environmental impact comparison.

TRAFFIC AND CIRCULATION

Intersection Level of Service (LOS), Queuing, and Roadway Segments LOS

Alternatives A, B1, and B2 would result in the same number of vehicle trips. Therefore, impacts on intersection LOS, roadway segment LOS, and queue lengths under existing, year 2019, and cumulative (2035) would be the same as the proposed project. Mitigation Measures MM TRA-2 (payment of applicable TIM fees) and MM TRA-3 (signal timing plan and restriping), identified for

the proposed project, would still be required to reduce impacts to less than significant for the alternatives.

Design Hazards

Sight Distance

Alternative A

Under Alternative A, a driveway would be 275 feet long, approximately 140 feet farther east than would occur with the proposed project (see Figure 4.0-1). This driveway would be limited to right turns only. The view looking west from this location is similar to that from the proposed project driveway, but because of the curve in Green Valley Road may be limited by vehicles queuing in the westbound left-turn lane approaching the Sophia Parkway intersection. However, looking along a line that avoids the turn lane, the view is roughly 525 feet, which satisfies the minimum requirements of the Caltrans *Highway Design Manual* (HDM) Table 201.1 "Stopping Sight Distance" per the 50 mph posted speed. Alternative A would, therefore, result in a less than significant impact, similar to the proposed project.

Alternatives B1 and B2

Under Alternatives B1 and B2, the existing Amy's Lane intersection on Green Valley Road would be used for project access. Because of the curve in Green Valley Road, the view looking west could also be limited by vehicles queuing in the westbound left-turn lane approaching Sophia Parkway. However, the distance available outside of any queue is roughly 600 feet, which satisfies the minimum requirement of the Caltrans HDM Table 201.1 "Stopping Site Distance" per the 50 mph posted speed. Because full access might be perpetuated at Amy's Lane, the view to the east is also a consideration. However, Green Valley Road is straight in this area, and the view is unobstructed. Alternatives B1 and B2 would result in a less than significant impact, similar to the proposed project.

Vehicle Throat Depth

Alternative A

Under Alternative A, the driveway access would be directly from Green Valley Road, but there would be a longer driveway into the convenience center. Vehicle throat depth was determined to be less than significant for the proposed project, and because this alternative would also provide sufficient distance, it would result in a less than significant impact. The Sophia Parkway driveway would be the same as the proposed project, which was identified as a less than significant impact.

Alternatives B1/B2

Vehicle throat depth at the Green Valley Road driveway would not be a consideration for Alternatives B1 or B2 because the driveway access would be from Amy's Lane. The driveway configurations from Amy's Lane would provide sufficient distance and would result in a less than significant impact, as would occur with the proposed project. The Sophia Parkway driveway would be the same as the proposed project, which was identified as a less than significant impact.

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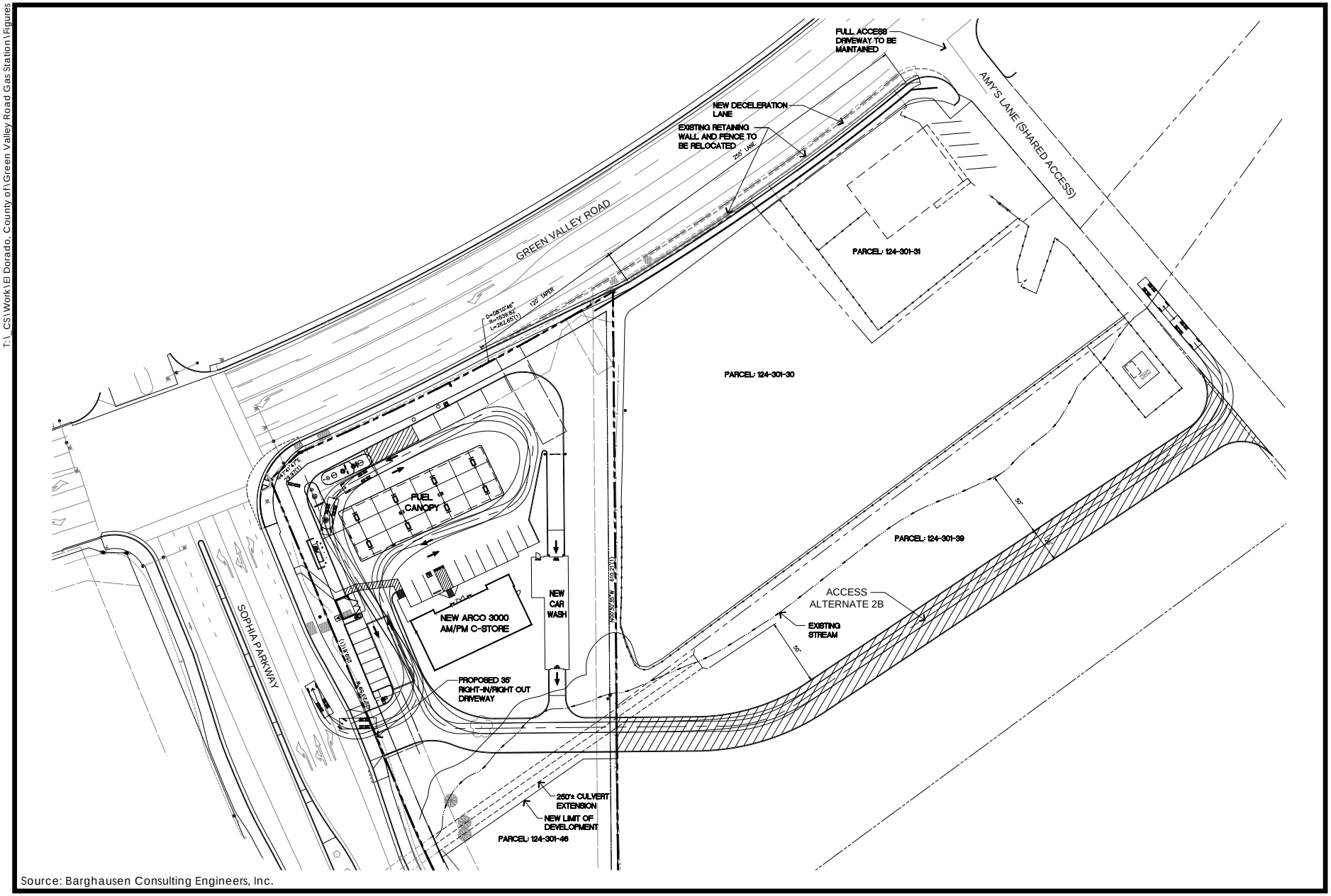

Source: Barghausen Consulting Engineers, Inc.

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Figure 4.0-3
Alternative B2
(Full Deceleration Lane to Amy's Lane Option 2)

Michael Baker INTERNATIONAL

Relation to Through-Traffic

Alternative A

Under this alternative, the total length of the bay taper and right turn lane is 275 feet. This alternative provides room for eastbound vehicles to decelerate in the area outside of the through-travel lanes after leaving the Sophia Parkway intersection as they approach the driveway on Green Valley Road. Alternative A would result in a less than significant impact, identical to the proposed project, and would not reduce or avoid any impacts of the proposed project.

Alternatives B1 and B2

Alternatives B1 and B2 eliminate the project's proposed access to Green Valley Road and use Amy's Lane for access. This alternative would have a 450-foot-long combination of bay taper and right-turn lane. Both Alternatives B1 and B2 provide room for eastbound vehicles to decelerate in the area outside of the through-travel lanes after leaving the Sophia Parkway intersection as they approach Amy's Lane. Alternatives B1 and B2 have the potential to create less interference with through-traffic on Green Valley Road compared to the proposed project, but this would not be required to avoid or reduce a project impact because no significant impacts were identified for the proposed project.

Vehicle and Bicycle/Pedestrian Conflicts

Alternative A

Alternative A would result in the same less than significant impact along Green Valley Road as the proposed project because, even though the driveway is further east, vehicles would still need to cross the bike lane to enter and exit the project site. The sight distance to see eastbound bicyclists would be sufficient. Alternative A would result in the same potentially significant impact as the proposed project for the Sophia Parkway driveway and would require Mitigation Measure MM TRA-10 because this alternative would include that driveway at the same location. Mitigation Measure MM TRA-10 requires "No Parking" signage south of the driveway and a leading pedestrian interval (LPI) added to the signal timing at the Sophia Parkway intersection.

Alternatives B1/B2

Alternatives B1 and B2 would result in the same less than significant impact along Green Valley Road as the proposed project because, even though the driveway access would be from Amy's Lane, vehicles would still need to cross the bike lane to make the right turn onto Amy's Lane. Unlike the proposed project (and Alternative A), these alternatives would allow free left turns into the center turn lane from Amy's Lane. The intersection is stop-controlled only for northbound Amy's Lane. Eastbound bicyclists would have the right-of-way through the intersection. However, the sight distance to see eastbound bicyclists would be sufficient. Alternatives B1 and B2 would result in the same potentially significant impact as the proposed project for the Sophia Parkway driveway and would require the same mitigation (MM TRA-10) as the proposed project because these alternatives would include that driveway at the same location.

Emergency Access During Construction

Alternative A

Construction traffic (primarily the result of importing fill material) would be similar to the proposed project, which was determined to result in a potentially significant impact requiring mitigation (MM TRA-11) to ensure construction activities do not result in conditions that would impair emergency access to the site and its surroundings. Mitigation Measure MM TRA-11 identifies procedures for soil import haul truck traffic and traffic management during construction.

Alternatives B1/B2

Construction of this alternative would involve movement of construction vehicles (primarily haul trucks) on Amy's Lane as well as Green Valley Road. Construction traffic would be similar to the proposed project, which was determined to result in a potentially significant impact requiring mitigation (MM TRA-11) to ensure construction activities do not result in conditions that would impair emergency access to the site and its surroundings.

BIOLOGICAL RESOURCES

Alternative A

Under Alternative A, the Green Valley Road access driveway would be located off-site approximately 140 feet farther east on Green Valley Road, as shown in Figure 4.0-1. This would result in a larger project footprint because the driveway access from the deceleration lane on Green Valley Road would extend into an adjoining parcel on the east rather than be contained with the project site. The parcel where the driveway would be situated is developed with paved surfaces.

Alternative A would result in the removal of five native interior live oak trees planted between the RV/boat storage yard and Green Valley Road, which would not occur with the proposed project. Because there is little oak canopy on the project site, the likely oak canopy retention standard under General Plan Policy 7.4.4.4 would be 90%. Removal of the five small oaks may exceed the minimum retention standard, and hence this alternative may not comply with Policy 7.4.4.4. Impacts on other trees would be the same as the proposed project. The biological impacts of Alternative A would be greater than for the proposed project as a result of oak tree removal.

There would be no difference in the wetland setback impact compared to the proposed project because the southern boundary of the developed area would be the same as the proposed project. The access driveway would be well north of the seasonal stream and seasonal wetland and, therefore, would not result in any impacts that would differ from the proposed project.

Alternative B1

Alternative B1, shown in Figure 4.0-2, would have a driveway off Amy's Lane crossing two off-site properties, beginning just south of Green Valley Road. This alternative would result in a larger project footprint as a result of the driveway connection to Amy's Lane and a full deceleration lane on Green Valley Road. All of the increased footprint would be on parcels east of the project that are currently developed with paved surfaces.

Alternative B1 would result in the removal of five native interior live oak trees planted between the RV/boat storage yard and Green Valley Road, which would not occur with the proposed project. Because there is little oak canopy on the project site, the likely oak canopy retention standard under General Plan Policy 7.4.4.4 would be 90%. Removal of the five small oaks may exceed the minimum retention standard, and hence this alternative may not comply with Policy 7.4.4.4. Impacts on other trees would be the same as the proposed project. The biological impacts of Alternative B1 would be greater than for the proposed project as a result of oak tree removal.

There would be no difference in the wetland setback impact compared to the proposed project because the southern boundary of the developed area would be the same as the proposed project. The access driveway would be north of the seasonal stream and seasonal wetland and, therefore, would not result in any impacts that would differ from the proposed project.

Alternative B2

Alternative B2, shown in Figure 4.0-3, would provide site access via a driveway connection to Amy's Lane and the full deceleration lane on Green Valley Road. This alternative differs from Alternative B1 in that the driveway would be south of the channel.

Alternative B2 would result in a larger project footprint than the proposed project. As a result of the driveway crossing of the creek to connect to Amy's Lane, Alternative B2 would need a culvert up to 250 feet of the channel and fill up to approximately 0.1 acre of the seasonal wetland. More riparian trees would be removed than for the proposed project. This alternative would also result in the removal of the same five interior live oak trees as Alternative B1, which would not occur with the proposed project. Because there is little oak canopy on the project site, the likely oak canopy retention standard under General Plan Policy 7.4.4.4 would be 90%. Removal of the five small oaks may exceed the minimum retention standard, and hence this alternative may not comply with Policy 7.4.4.4.

The potential impacts of Alternative B2 on the seasonal stream and riparian/wetland habitat and oak trees would be greater than for the proposed project or Alternative B1.

4.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires an EIR to identify the "environmentally superior" alternative from among the range of reasonable alternatives evaluated. The No Project/No Build Alternative would be the environmentally superior alternative because it would avoid all of the impacts of the proposed project. However, it would not meet project objectives.

CEQA Guidelines Section 15126(e) (2) states that if the environmentally superior alternative is the No Project Alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives. Alternative B2 was eliminated as an environmentally superior alternative because it would result in greater biological resources impacts than the proposed project and would not be consistent with the project's objective to minimize impacts on sensitive biological habitats and avoid oak woodlands, and it would not avoid, eliminate, or substantially lessen any of the project's impacts.

As explained above, there is no difference in intersection or roadway segment LOS or queuing impacts between Alternatives A and B1. The impacts at the Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection in year 2019 would be identical for both alternatives

because they would generate the same number of trips. For the remaining traffic and circulation impacts, neither would further reduce the impacts of the proposed project nor avoid an impact altogether. However, with regard to Objective 3, which addresses safe access, Alternative A would maintain the right-in, right-out driveway access on Green Valley Road, which would not occur with Alternative B1. Under Alternative B1, traffic exiting on Amy's Lane would not be prohibited from turning left onto Green Valley Road. The westbound view is unobstructed with sufficient sight distance, and there is a two-way left-turn lane that vehicles exiting Amy's Lane could enter before entering westbound traffic. However, there is still the potential that left-turn movements through the eastbound lane into the center turn lane before entering westbound traffic could lead to increased risk of collisions because vehicles would be making a left turn, whereas with the proposed project they would not.

Alternatives A and B1 would result in identical biological resources impacts, with the exception of oak canopy. Alternative B1 would require the removal of interior live oaks, which would be inconsistent with Objective 5 (minimize biological resources impacts such as avoiding oaks).

The two alternatives would equally achieve all of the remaining project objectives because they would include the same facilities as the proposed project.

As such, Alternative A was determined to be the environmentally superior alternative.

4.5 OTHER ALTERNATIVES CONSIDERED

The County also considered two additional alternatives, a Reduced Project Alternative and an Off-Site Alternative. The following potential alternatives were considered using the criteria described below, but were dismissed from detailed evaluation in the Draft EIR for the individual reasons stated for each potential alternative, as allowed under CEQA Guidelines Section 15126.6(c).

Criteria that were used to identify alternatives other than the specific design-related alternatives required by the Settlement Agreement are:

Ability to meet project objectives: the extent to which an alternative fulfills the project's objectives.

Impact avoidance: the extent to which an alternative substantially avoids, minimizes, reduces, or eliminates a significant environmental impact.

Feasibility: the extent to which an alternative is potentially capable of being accomplished given economic, environmental, legal, social, and technological factors.

REDUCED PROJECT ALTERNATIVE

Under the Reduced Project Alternative, only the fueling component would be constructed at the project site, which would result in fewer vehicle trips. Because the impacts of the proposed project would be less than significant or less than significant with mitigation, this alternative would not avoid, eliminate, or substantially lessen the project's traffic and circulation impacts. This alternative, which could have a smaller development footprint, could be developed outside the 50-foot interim setback. This alternative would lessen, to some degree, the impacts on riparian habitat. However, such impacts can be feasibly mitigated for the proposed project.

The Reduced Project Alternative would not likely be economically feasible for the applicant because the gas station would need the accessory uses (mini-mart and car wash) to be profitable. Thus, it would not meet Objective 1. Without such amenities, it would not provide local service for a mini-mart and car wash (Objectives 2 and 3), nor would it meet the objective of helping reduce potable water use for car-washing (Objective 4). A Reduced Project Alternative would meet Objectives 5 and 6.

OFF-SITE ALTERNATIVES

CEQA Guidelines Section 15126.6(f)(2) addresses the evaluation of alternative locations for proposed projects as part of an EIR alternatives analysis. This discussion falls under the Guidelines' explanation of the "rule of reason" governing the selection of an adequate range of alternatives for evaluation in the EIR. The key question concerning the consideration of an alternative location to the proposed project is whether any of the significant effects identified for a given project would be avoided or substantially lessened by putting the project in another location.

Two off-site alternatives were considered for the proposed project: on the west side of Sophia Parkway at Green Valley Road, and the southwest corner of the intersection of Green Valley Road and Francisco Drive.

Sophia Parkway (West Side)/Green Valley Road

The construction of Sophia Parkway and the Green Valley Road widening in approximately 2002 involved stockpiling of material on a portion of this alternative site. This alternative site is bisected by the same seasonal stream as the proposed project and contains riparian habitat. A seasonal wetland is adjacent to the south side of the stream (Sycamore 2007). This alternative was eliminated from further consideration because it would not reduce any of the traffic and circulation or biological resources impacts of the proposed project. Although the parcel is zoned for commercial development, the project applicant does not own the parcel. The added expense of purchasing land rather than using land already under the control by the applicant would likely make this alternative location unduly expensive and infeasible. This expense would not be justified given development of the project at this site would not avoid or reduce any impacts of the proposed project.

Francisco Drive/Green Valley Road

This alternative site has two intermittent and ephemeral channels, one on the north side of the site near Green Valley Road, and one on the south side. A wetland swale is also on the south side of the site. The site has multiple slopes and a small riparian area, and native oak canopy covers 3.42 acres of the 6.85-acre site (El Dorado County 2012). Development of a similar project at this site would likely require a driveway connection to Green Valley Road, which would result in fill of part of one of the channels. Development of a similar project anywhere on this site would also result in removal of oak canopy, and likely would not be able to comply with General Plan Policy 7.4.4.4 Option A. Because this alternative would not lessen any of biological resources impacts of the proposed project, and would have the potential to result in greater biological resources impacts (wetlands and oak canopy), it was removed from further consideration and detailed analysis of environmental impacts. Further, the applicant does not own the parcel, which would make it infeasible. The added expense of purchasing land rather than using land already under the control by the applicant would make this alternative location unduly expensive and infeasible. This expense would not be justified given development of the project at this site would not avoid or reduce any impacts of the proposed project.

TABLE 4.0-1
COMPARISON OF ENVIRONMENTAL OF IMPACTS OF ALTERNATIVES

Project Impact		Environmental Impact Significance Comparison				
		Proposed Project	Alternative A (GreenValley Road driveway further east)	Alternative B1 (Amy's Lane Access, driveway north of seasonal stream)	Alternative B2 (Amy's Lane Access, driveway south of seasonal stream)	No Project
Transportation and Circulation						
TRA-1	Intersection levels of service – existing plus project	LS	LS (identical to proposed project)	LS (identical to proposed project)	LS (identical to proposed project)	NI
TRA-2	Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection LOS F conditions – year 2019	LS/MM	LS/MM (identical to proposed project)	LS/MM (identical to proposed project)	LS/MM (identical to proposed project)	NI
TRA-3	Green Valley Road/Sophia Parkway westbound left-turn lane and Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection eastbound left-turn lane queue lengths – existing plus project	LS/MM	LS/MM (identical to proposed project)	LS/MM (identical to proposed project)	LS/MM (identical to proposed project)	NI
TRA-4	Green Valley Road/Sophia Parkway westbound left-turn lane queue lengths – year 2019	LS/MM	LS/MM (identical to proposed project)	LS/MM (identical to proposed project)	LS/MM (identical to proposed project)	NI
TRA-5	Green Valley Road/El Dorado Hills Boulevard-Salmon Falls Road intersection eastbound left-turn lane queue lengths – year 2019	LS	LS (identical to proposed project)	LS (identical to proposed project)	LS (identical to proposed project)	NI
TRA-6	Roadway segments – existing plus project	LS	LS (identical to proposed project)	LS (identical to proposed project)	LS (identical to proposed project)	NI
TRA-7	Roadway segments – year 2019	LS	LS (identical to proposed project)	LS (identical to proposed project)	LS (identical to proposed project)	NI
TRA-8	Design hazards related to sight distance, vehicle throat depth, or through traffic	LS	LS (similar to proposed project)	LS (similar to proposed project, but less potential interference with through traffic)	LS (similar to proposed project, but less potential interference with through traffic)	NI

LS = Less than Significant LS/MM = Less than Significant with Mitigation NI = No Impact

TABLE 4.0-1
COMPARISON OF ENVIRONMENTAL OF IMPACTS OF ALTERNATIVES

Project Impact		Environmental Impact Significance Comparison				
		Proposed Project	**Alternative A (GreenValley Road driveway further east)**	**Alternative B1 (Amy's Lane Access, driveway north of seasonal stream)**	**Alternative B2 (Amy's Lane Access, driveway south of seasonal stream)**	**No Project**
TRA-9	Increased use of bicycle/pedestrian pedestrian facilities	LS	LS (identical to proposed project)	LS (identical to proposed project)	LS (identical to proposed project)	NI
TRA-10	Potential for vehicle and pedestrian/bicyclist conflicts at the Green Valley Road/Sophia Parkway intersection and at the Sophia Parkway driveway	LS/MM	LS/MM (identical to proposed project)	LS/MM (similar to proposed project, but driveway ingress/egress would not be directly through bike lane on Green Valley Road)	LS/MM (similar to proposed project, but driveway ingress/egress would not be directly through bike lane on Green Valley Road)	NI
TRA-11	Effects on emergency access during construction	LS/MM	LS/MM (identical to proposed project)	LS/MM (identical to proposed project)	LS/MM (identical to proposed project)	NI
Biological Resources						
BIO-1	Special-status plant species	NI	NI	NI	NI	NI
BIO-2	Special-status raptors and birds protected under the Migratory Bird Treaty Act	LS/MM	LS/MM (identical to proposed project)	LS/MM (would affect more trees that could provide habitat than proposed project, but preconstruction surveys would mitigate impacts)	LS/MM (would affect more trees that could provide habitat than proposed project, but preconstruction surveys would mitigate impacts)	NI

LS = Less than Significant LS/MM = Less than Significant with Mitigation NI = No Impact

TABLE 4.0-1
COMPARISON OF ENVIRONMENTAL OF IMPACTS OF ALTERNATIVES

Project Impact		Environmental Impact Significance Comparison				
		Proposed Project	Alternative A (GreenValley Road driveway further east)	Alternative B1 (Amy's Lane Access, driveway north of seasonal stream)	Alternative B2 (Amy's Lane Access, driveway south of seasonal stream)	No Project
BIO-3	Removal of riparian habitat	LS/MM	LS/MM (identical to proposed project)	LS/MM (identical to proposed project)	LS/MM (would affect a greater amount of riparian habitat than the proposed project and would require additional compensatory mitigation; could also result in oak woodland habitat impacts that would not occur with proposed project)	NI
BIO-4	Riparian habitat water quality	LS/MM	LS/MM (identical to proposed project)	LS/MM (identical to proposed project)	LS/MM (greater effects on seasonal stream than proposed project)	NI
BIO-5	Federally protected wetlands	NI	NI	NI	LS/MM (greater effects than proposed project - would affect the seasonal wetland and would require mitigation to compensate for wetland fill)	NI
BIO-6	Within 50-foot interim standard setback for wetlands established in County General Plan Policy 7.3.3.4	LS/MM	LS/MM (identical to proposed project)	LS/MM (identical to proposed project)	LS/MM (would result in greater disturbance in setback)	NI
BIO-7	Wildlife movement	LS	LS (identical to proposed project)	LS (identical to proposed project)	LS (identical to proposed project)	NI

LS = Less than Significant LS/MM = Less than Significant with Mitigation NI = No Impact

TABLE 4.0-1
COMPARISON OF ENVIRONMENTAL OF IMPACTS OF ALTERNATIVES

Project Impact		Environmental Impact Significance Comparison				
		Proposed Project	Alternative A (GreenValley Road driveway further east)	Alternative B1 (Amy's Lane Access, driveway north of seasonal stream)	Alternative B2 (Amy's Lane Access, driveway south of seasonal stream)	No Project
BIO-8	General Plan policies protecting biological resources	LS/MM	LS/MM (potentially greater impact related to oak tree removal, requiring additional mitigation, which is not required for the proposed project)	LS/MM (potentially greater impact related to oak tree removal, requiring additional mitigation, which is not required for the proposed project)	LS/MM(would result in greater disturbance in setback; and potentially greater impact related to oak tree removal, requiring additional mitigation, which is not required for the proposed project)	NI
BIO-9	Adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan	NI	NI	NI	NI	NI
BIO-10	Substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal	LS	LS (identical to proposed project)	LS (identical to proposed project)	LS (identical to proposed project)	NI

LS = Less than Significant LS/MM = Less than Significant with Mitigation NI = No Impact

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5.0 OTHER CEQA TOPICS

5.1 INTRODUCTION

This section describes the unavoidable significant effects of the proposed project and growth inducement, in accordance with CEQA Guidelines Sections 15126.2(b) through 15126.2(d). It also addresses CEQA Guidelines Appendix F regarding energy conservation.

5.2 SIGNIFICANT AND UNAVOIDABLE IMPACTS

The proposed project would not result in any significant and unavoidable impacts.

5.3 GROWTH-INDUCING IMPACTS

CEQA Guidelines Section 15126.2(d) requires that an EIR evaluate the growth-inducing impacts of a proposed project, and that the analysis should consider:

> *...the way in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth... Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also...the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.*

GROWTH INDUCEMENT POTENTIAL

The proposed project would consist of the development of a gas station, convenience store, and car wash. Utilities, including water, sewer, electric, natural gas, and telephone service, would be extended to the project site from existing facilities in Green Valley Road and Sophia Parkway. The project would include an on-site storm drainage culvert that would discharge directly to the seasonal stream. None of the utility improvements would provide additional capacity. Improvements would be made to the Green Valley Road/Sophia Parkway intersection and along Green Valley Road and Sophia Parkway to allow for improved traffic circulation and for project ingress/egress. No new roadways where none exist or additional capacity on existing roadways would be constructed. As such, the proposed project would not result in the need for new or expanded infrastructure that would eliminate a physical obstacle to growth.

The project is located in El Dorado Hills, which is designated as a Community Region in the 2004 General Plan. The project would result in infill development of a site that is currently vacant and located in an urbanized setting, adjacent to two major roadways. The proposed project is consistent with the existing General Plan land use designation and zoning. No General Plan land use amendment or rezone is proposed that would intensify the use beyond that currently allowed. Land uses immediately east, northeast, and west are designated for commercial development, and the proposed project would not introduce a new or different use that would have the potential to encourage growth other than what is currently allowed under existing zoning.

The proposed project would not construct housing that would attract new population. The retail service would be a source of local employment opportunity for a few people, but this would not result in the need to construct new housing that could result in significant environmental effects.

5.4 ENERGY CONSERVATION

CEQA Guidelines Appendix F, Energy Conservation, requires consideration of project impacts on energy and focuses particularly on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (Public Resources Code Section 21100[b][3]). The potentially significant energy implications of a project must be considered in an EIR to the extent relevant and applicable to the project.

Energy usage is typically quantified using the British thermal unit (BTU). As a point of reference, the approximate amounts of energy contained in common energy sources are as follows:

Energy Source	BTUs
Gasoline	120,388 – 124,340 per gallon
Diesel Fuel	138,490 per gallon
Natural Gas (compressed gas)	22,453 per pound
Electricity	3,414 per kilowatt-hour

Sources: USDOE 2014

Given the nature of the proposed project, the following discussion focuses on the three sources of energy that are most relevant to the project—electricity and natural gas for the proposed facility, and transportation fuel for vehicle trips associated with the project.

Total energy usage in California was 7,641 trillion BTUs in 2012, which equates to an average of 201 million BTUs per capita. Of California's total energy usage, the breakdown by sector is 38.5 percent transportation, 22.8 percent industrial, 19.3 percent commercial, and 19.2 percent residential. Electricity and natural gas in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum consumption is generally accounted for by transportation-related energy use (EIA 2015). In 2014, taxable gasoline sales (including aviation gasoline) in California accounted for 14,702,632,422 gallons of gasoline (BOE 2015).

REGULATORY BACKGROUND

Federal and state agencies regulate energy use and consumption through various means and programs. Federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, funding of energy-related research and development projects, and funding for transportation infrastructure improvements. At the state level, the California Public Utilities Commission and the California Energy Commission are two agencies with authority over different aspects of energy. California is exempt under federal law from setting state fuel economy standards for new on-road motor vehicles.

The California Green Building Standards Code, CALGreen, was adopted as part of the California Building Standards Code (California Code of Regulations, Title 24, Part 11) and became effective January 1, 2011. Part 11 establishes voluntary standards on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.

The California Energy Commission recently adopted changes to the 2013 Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 6 (also known as the California Energy Code) and associated administrative regulations in Part 11 (collectively referred to here as the standards). The 2013 Building Energy Efficiency Standards are 25 percent more efficient than previous standards for residential construction. The standards offer builders better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

PROJECT ENERGY CONSUMPTION AND CONSERVATION

The proposed project would introduce energy usage on a site that is currently undeveloped and thus uses no energy. The project would consume energy in both the short term during project construction and in the long term during project operation. The analysis of electricity/natural gas usage is based on California Emissions Estimator Model (CalEEMod) air quality and greenhouse gas emissions modeling, which quantifies energy use for construction and occupancy with and without mitigation (CalEEMod construction outputs are coupled with conversion ratios obtained from the California Climate Action Registry [2009]). The results of CalEEMod modeling are included in Appendix B of this Draft EIR. Modeling was based primarily on the default settings in the computer program for El Dorado County. The amount of fuel use was estimated using the California Air Resources Board's EMFAC2011 computer program, which also provides assumptions for typical daily fuel usage in El Dorado County. This impact discussion assumes full growth potential of the project in order to present the maximum energy use.

Construction Phase

Construction activities would require the use of gasoline, diesel fuel, and other fuels. Energy use during construction typically involves the use of motor vehicles both for transportation of workers and equipment and for direct construction actions such as the use of cranes or lifts. Additional energy would be used for power tools and equipment used on-site, including but not limited to gas generators, air compressors, air handlers and filters, and other typical direct construction energy uses.

Using ratios provided in the Climate Action Registry (2009) General Reporting Protocol Version 3.1, construction associated with the proposed project would require approximately 9,951 gallons of diesel fuel (see Appendix B for data outputs). This usage would constitute approximately 0.00007 percent (9,951 gallons for project/14,702,632,422 gallons for state = 0.00007 percent) of typical annual fuel usage in the state as reported by the State Board of Equalization (BOE 2015).

The demand for fuel and other energy resources would not result in the need for new or altered facilities given the temporary nature of construction. Furthermore, construction activities are not anticipated to result in an inefficient use of energy, as construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would conserve the use of their supplies to minimize costs to the individual project. In addition, imported fill to raise the site grade is expected to be obtained from sources near the site, which would minimize haul truck fuel consumption.

Operational Phase

The proposed commercial gasoline-dispensing facility would consume energy. In addition, traffic generated by new development would also consume energy.

Energy consumption associated with operation of the proposed commercial facility is summarized in Table 5.0-1. This usage would constitute approximately 0.00003 percent (523,804,891 BTUs for project/1,484,000,000,000,000 BTUs for all commercial uses in the state = 0.00003 percent) of the typical annual energy consumption of commercial space in the state as reported by the US Energy Information Administration (2015).

TABLE 5.0-1
PROJECT ENERGY CONSUMPTION FROM PROPOSED COMMERCIAL SQUARE FOOTAGE

Source	Kilowatt Hours Annually	kBTU Annually	BTU Equivalent Annually
Proposed Project	134,258	65,698	523,804,891

Source: CalEEMod version 2013.2.2.

The project would be required to comply with Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage, and it is generally assumed that compliance with Title 24 ensures projects will not result in the inefficient, wasteful, or unnecessary consumption of energy. Furthermore, the electricity provider in El Dorado County, Pacific Gas and Electric (PG&E), is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020. Renewable energy is generally defined as energy that comes from resources that are naturally replenished within a human timescale such as sunlight, wind, tides, waves, and geothermal heat. The increase in reliance on such energy resources further ensures projects will not result in the waste of finite energy resources. As stated in Section 2.0, Project Description, the proposed project proposes solar panels on the fuel island canopy and top of the carwash building. This would help reduce the project's energy consumption.

The proposed gas station would dispense automotive fuel daily to paying customers. However, this dispensed gasoline would not be used for project operations but rather for those buying and using the fuel. Additionally, the project would provide a commercial land use in close proximity to an existing major roadway (Green Valley Road) that will serve the traveling public and local residents with a fueling facility and convenience store. Due to the project's location adjacent to Green Valley Road, the project would predominantly serve travelers already traveling to and from El Dorado Hills. In other words, project components would mostly serve travelers who would travel through El Dorado Hills on Green Valley Road regardless of project implementation.

According to the traffic analysis prepared for the project (KD Anderson and Associates 2015), the proposed project would receive 1,076 average daily trips. Per the EMFAC2011 computer program, these daily traffic trips would contribute to the consumption of 310 gallons of automotive fuel daily (see Appendix B). It is expected that throughout all of El Dorado County, 306,240 gallons of automotive fuel are consumed daily. Therefore, the increase of fuel usage associated with vehicle trips to the proposed project would constitute approximately 0.1 percent (310 gallons /306,240 gallons = 0.1 percent) of typical daily fuel usage in the county, which is not considered substantial. As the federal government continues to require more stringent fuel economy standards, the amount of fuel use would be expected to be less in the future.

For the reasons described above, the proposed project would not place a substantial demand on regional energy supply or require significant additional capacity, or significantly increase peak and base period electricity demand, or cause wasteful, inefficient, and unnecessary consumption of energy during project construction, operation, and/or maintenance, or preempt future energy development or future energy conservation. Impacts would be **less than significant.**

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