DRAFT

Prepared for:

City of Plymouth
9426 Main Street
Plymouth, California 95669
Contact: Magda Gonzalez

ARCO Commercial Center and Car Wash Project

Initial Study/Mitigated Negative Declaration

Prepared by:

CSG CONSULTANTS
3707 W. Garden Grove Boulevard,
Suite 100,
Orange, California 92868
Contact: Glenn Lajoie, AICP

MAY 5, 2025

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
ACRA	Amador County Recreation Agency
ACSO	Amador County Sheriff's Office
ACUSD	Amador County Unified School District
ADD	Amador Air District
ADT	Average Daily Traffic
AFPD	Amador Fire Protection District
BACT	Best Available Control Technology
BAU	Business As Usual
BMPs	Best Management Practices
BRA	Biological Resources Assessment
CA 49/SR 49	State Route/Highway 49
CALFIRE	California Department of Forestry and Fire Prevention
CALGreen	California Green Building Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CalEPA	California Environmental Protection Agency
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERS	California Environmental Reporting System
CESA	California Endangered Species Act
CGS	California Geological Survey
City	City of Plymouth
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CPUC	California Public Utilities Commission
CWA	Clean Water Act
CUPA	Certified Unified Program Agency
CVRWQCB	Central Valley Regional Water Quality Control Board
DNL	Day-Night Average Levels
DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substances Control
ECHO	Enforcement and Compliance History Online
EDR	Environmental Database Reports
EIR	Environmental Impact Report
(US)EPA	Environmental Protection Agency
ESA	Environmental Site Assessment

Acronym/Abbreviation	Definition
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FGC	California Fish and Game Code
FHWA	Federal Highway Administration
FICON	Federal Interagency Commission on Noise
FINDS	Facility Index System
FTA	Federal Transit Administration
GHG	Greenhouse Gas
GP	General Plan
HC	Highway Commercial Zoning Designation
HCM	Highway Capacity Manual
HDM	Caltrans Highway Design Manual
HWTS	Hazardous Waste Tracking System
HVAC	Heating, Ventilation, and Air Conditioning
IEPR	Integrated Energy Policy Report
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
IS/MND	Initial Study/Mitigated Negative Declaration
ITE	Institute of Transportation Engineers
LOS	Level of Service
LPG	Liquefied Petroleum Gas
LTQT	Late Quaternary
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MGD	Million gallons per day
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
MPH	Miles Per Hour
MRZ	Mineral Resource Zone
MT	Metric Ton
NAHC	Native American Heritage Commission
NAICS	North American Industry Classification System
NCIC	North Central Information Center
ND	Negative Declaration
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
OHP	Office of Historic Preservation
PRD	Permit Registration Documents
Project	ARCO Commercial Center and Car Wash Project
RCRA	Resource Conservation and Recovery Act
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank
ROG	Reactive Organic Gases
RPW	Relatively Permanent Waters

Acronym/Abbreviation	Definition
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SC	Suburban Commercial General Plan Designation
SCAQMD	South Coast Air Quality Management District
SF	Square Feet
SJVAPCD	San Joaquin Valley Air Pollution Control District
SMAQMD	Sacramento Metropolitan Air Quality Management District
SWP	Stormwater Mitigation Plan
SWPPP	Stormwater Pollution Prevention Program
SWRCB	State Water Resources Control Board
TAC	Toxic Air Containment
TNW	Traditional Navigable Waters
TPA	Transit Priority Area
TS	Plymouth ARCO Gas Station Project Transportation Study
TWTP	Tanner Water Treatment Plant
UC	Urban Commercial
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
UST	Underground Storage Tank
VC	Village Commercial Zoning Designation
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
WDR	Waste Discharge Requirements

1 Introduction and Purpose

1.1 Project Overview

Following a preliminary review of the proposed ARCO Commercial Center and Car Wash Project (hereinafter referred to as the "project"), the City of Plymouth (City) determined that the project is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA). This Initial Study (IS) addresses the direct, indirect, and cumulative environmental effects associated with the project, as proposed.

The project site is located at 18725 State Route 49 (CA 49/SR 49) and involves development on the southern portion of a partially occupied lot, based on a proposed parcel line reconfiguration to accommodate a new southern parcel, a General Plan designation change to Suburban Commercial, and a Zoning designation change to Highway Commercial. The Project Applicant is proposing to establish a new 1.02-acre southern parcel for an ARCO gas station, AM/PM retail facility, and car wash. The proposed development, once operational, would have approximately 12 to 15 employees at various hours in a given week. The facility would operate as a fueling station with 12 vehicle fueling positions and would require the installation of 3 underground storage tanks. The convenience store would include pre-packaged grocery items, drinks, tobacco products, sundries, and automobile-related convenience items, and would operate 24 hours per day.

There are two businesses currently occupying the existing two lots; Fig Barn Coffee is located on the western parcel, and the Plymouth Trading Post, a gas station, is located on the eastern parcel. The proposed parcel line adjustment would reconfigure the lot such that the Fig Barn Coffee business and Plymouth Trading Post building would remain, allowing for the gas station development on the proposed southern parcel. The required entitlements would include a General Plan Amendment, Zone Change, Major Design Review, Administrative Use Permit, and Lot Line Adjustment. Section 3.0, Project Description, provides a detailed description of the project.

1.2 Statutory Authority and Requirements

In accordance with the California Environmental Quality Act of 1970, as amended (California Public Resources Code, Section 21000-21177) and pursuant to the State CEQA Guidelines (Title 14, California Code of Regulations [CCR], Chapter 3, Section 15063), the City, acting in the capacity of the Lead Agency, is required to undertake the preparation of an IS to determine if the project would have significant environmental impacts. The environmental document is intended as informational, undertaken to provide an environmental basis for subsequent discretionary actions on the project. The resulting documentation is not, however, a policy document and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and other discretionary approval would be required.

The environmental documentation and supporting analysis will be subject to a public review period. During this review, public comments on the documentation should be addressed to the City. Following the review of any comments received pertaining to the CEQA review, the City will consider these comments as part of the project's environmental review and determination. The comments will be included in the IS document for consideration by the City of Plymouth's Planning Commission and City Council.

1.3 Purpose of the Initial Study

The purpose of the Initial Study (IS) is to: (1) identify environmental impacts; (2) provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR), Mitigated Negative Declaration (MND) or Negative Declaration (ND); (3) enable a Lead Agency or Applicant to modify a project, mitigating potential adverse impacts before an EIR is prepared; (4) facilitate an environmental assessment early in the design of a project; (5) provide documentation of the factual basis for the finding in an MND or ND that a project would not have a significant environmental effect; (6) eliminate needless EIRs; (7) determine whether a previously prepared EIR could be used for a project; and (8) assist in the preparation of an

EIR, if required, by focusing the EIR on the effects determined to be significant, identifying the effects determined not to be significant, and explaining the reasons for determining that potentially significant effects would not be significant.

Section 15063 of the State CEQA Guidelines identifies specific disclosure requirements for inclusion in an IS. Pursuant to those requirements, an IS must include the following: (1) a description of the project, including the location of the project; (2) an identification of the environmental setting; (3) an identification of environmental effects by use of a checklist; (4) a discussion of ways to mitigate significant effects identified, if any; (5) an examination of a project's compatibility with existing zoning, plans, and other applicable land use controls; and (6) the name of the person or persons who prepared or participated in the preparation of the IS.

1.4 California Environmental Quality Act Compliance

In accordance with CEQA and the State CEQA Guidelines, this IS has been prepared for the proposed project and its associated discretionary approvals. The IS indicates that the potentially significant impacts of the project can be reduced to less than significant levels with implementation of mitigation measures, and therefore, the project requires preparation of an Initial Study/Mitigated Negative Declaration (IS/MND).

The IS/MND serves as the environmental document that presents the analysis of project impacts on each of the environmental topic areas in the CEQA Environmental Checklist provided in Section 4.0. This document will serve to inform City decision makers, representatives of affected trustee and responsible agencies, and other interested parties of the potential environmental effects that may occur with approval and implementation of the proposed project.

1.5 California Environmental Quality Act Review and Comment

This IS/MND has been submitted to potentially affected agencies and individuals. Notices of the availability of the IS/MND for review and comment, as well as the environmental documentation, are available on the City of Plymouth's website (City of Plymouth Planning) for review.

A 30-day public review period has been established for the IS/MND in accordance with Section 15073 of the State CEQA Guidelines. During review of the IS/MND, affected public agencies and the interested public should focus on the document's adequacy in identifying and analyzing the potential environmental impacts and the ways in which the potentially significant effects of the project can be avoided or mitigated. Comments on the IS/MND and the analysis contained herein must be received by 4:00 PM on Tuesday, June 3, 2025, and should be addressed to:

City of Plymouth
Magda Gonzalez, Senior Planner
P.O. Box 429
Plymouth, CA 95669
mgonzalez@4leafinc.com

Following receipt and evaluation of comments from agencies, organizations, and/or individuals, the City will determine whether any substantial new environmental issues have been raised. If so, further documentation – such as an EIR or an expanded IS/MND – may be required. If not, the project and the environmental documentation are tentatively scheduled to be submitted to the Plymouth Planning Commission and City Council for consideration.

1.6 Organization of the Initial Study

The IS/MND is organized into sections, as described below:

- **Section 1.0: Introduction and Purpose.** This section provides an introduction, project summary, and overview of the conclusions in the IS/MND.

- **Section 2.0: Project Location and Environmental Setting**. This section provides a brief description of the project location, relevant background information, and a description of the existing conditions of the project site and vicinity.
- **Section 3.0: Project Description.** This section provides a description of the proposed project, a statement of purpose and need, and necessary discretionary approvals.
- **Section 4.0: Environmental Checklist.** The completed Environmental Checklist Form from the State CEQA Guidelines provides an overview of the potential impacts that may or may not result from project implementation. The Environmental Checklist Form also includes "mandatory findings of significance", as required by CEQA. The analysis concludes the significance of impacts and standard conditions, regulatory requirements, and mitigation measures to reduce potentially significant impacts.
- **Section 5.0: References.** This section identifies the references used to prepare the IS/MND and lists the preparers of the document.

2 Project Location and Environmental Setting

2.1 Project Location

The proposed project is located at 18725 State Route 49 in the City of Plymouth (City), in Amador County, California; refer to Exhibit 2-1, Regional Vicinity. The subject parcel is 1.91 acres, however, the Project Applicant is proposing to reconfigure the parcel lines to create a 1.02-acre southern parcel, for which the existing condition is unimproved. The existing lot line configuration establishes a 0.65-acre eastern parcel and a 1.26-acre western parcel; the proposed change would re-orient the northern parcel to be 0.89-acre in size.

The proposed project site is situated south of Main Street, west of SR 49, and east of Mill Street. Surrounding uses include single family residences to the west of Mill Street, north of Main Street, and east of SR 49 on the southern end of its span that borders the project site. Commercial uses are situated immediately north of the project site, on the two existing north-south parcels for which the parcel line reconfiguration is proposed, and include the Plymouth Trading Post (gas station) to the northeast, and the Fig Barn Coffee Café to the northwest. Commercial uses are also located northeast of and adjacent to the project site, across SR 49. The project site is located in the center of the City of Plymouth and is approximately 280-feet from the roundabout that serves as the main traffic junction within the City.

2.2 Existing Site and Area Characteristics

On-site conditions for the proposed southern parcel are unimproved; the southern portion of the proposed lot has several trees, some of which are oak trees, scattered across the site, with grassy mounds and holes. The northern portion of the proposed lot is covered in gravel, with the exception of a portion of a paved access road/driveway that connects Main Street to SR 49 across the proposed northern parcel, between the two existing commercial uses.

The proposed project site is currently separated into two parcels via a north-south line that separates the existing commercial uses in an east-west manner. The existing property line is drawn from the existing northern driveway on Main Street, diagonally across the site, to the southeastern edge of the site along SR 49. A paved access road crosses the site between the two commercial uses and connects Main Street to SR 49 in the northeastern section of the site. The Plymouth Trading Post is located on paved ground at the northeast corner of the site. There is no landscaping on-site. Site access is currently provided via a driveway off of Main Street on the northern edge of the proposed northern parcel, and two driveways off of SR 49 along the eastern edge of the site, near the location of the proposed new property line.

2.3 Surrounding Land Uses

The project site is located within an area of the City that includes residential and commercial uses. As shown in Exhibit 2- 2, Project Site Vicinity, the site is bordered by SR 49 to the east, and a mixture of commercial, residential, and public uses immediately east of SR 49. The site is bordered by a small area of open space to the south, as well as residential uses. To the west, the project site is bordered by Mill Street, and residential and commercial uses are located immediately west of Mill Street. As mentioned, there are two existing commercial uses immediately north of the proposed project site, on the same lot as the proposed project. Fig Tree Café is located at the northwest corner of the western property and the Plymouth Trading Post, a gas station, is located at the northeast corner of the eastern property. Main Street is located immediately north of these two commercial uses, and the properties immediately north of Main Street consist of both residential and commercial uses. Additional uses beyond the immediate areas of the site are summarized below:

- **North:** Two commercial use buildings, including Fig Tree Café to the northwest, and Plymouth Trading Post to the northeast. Main Street borders the lot to the north. Uses to the north of Main Street include commercial and single family residential, and one village residential area.

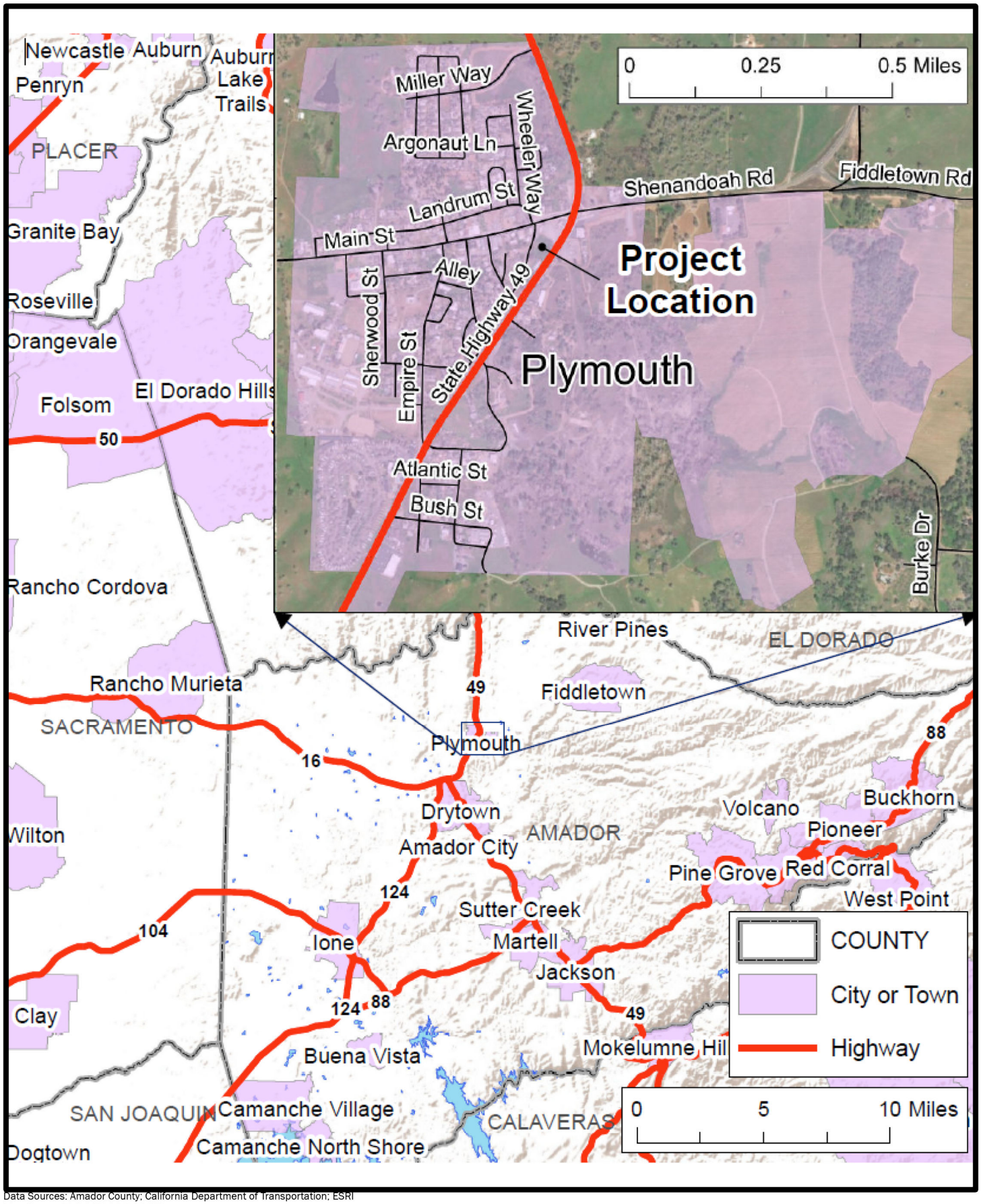

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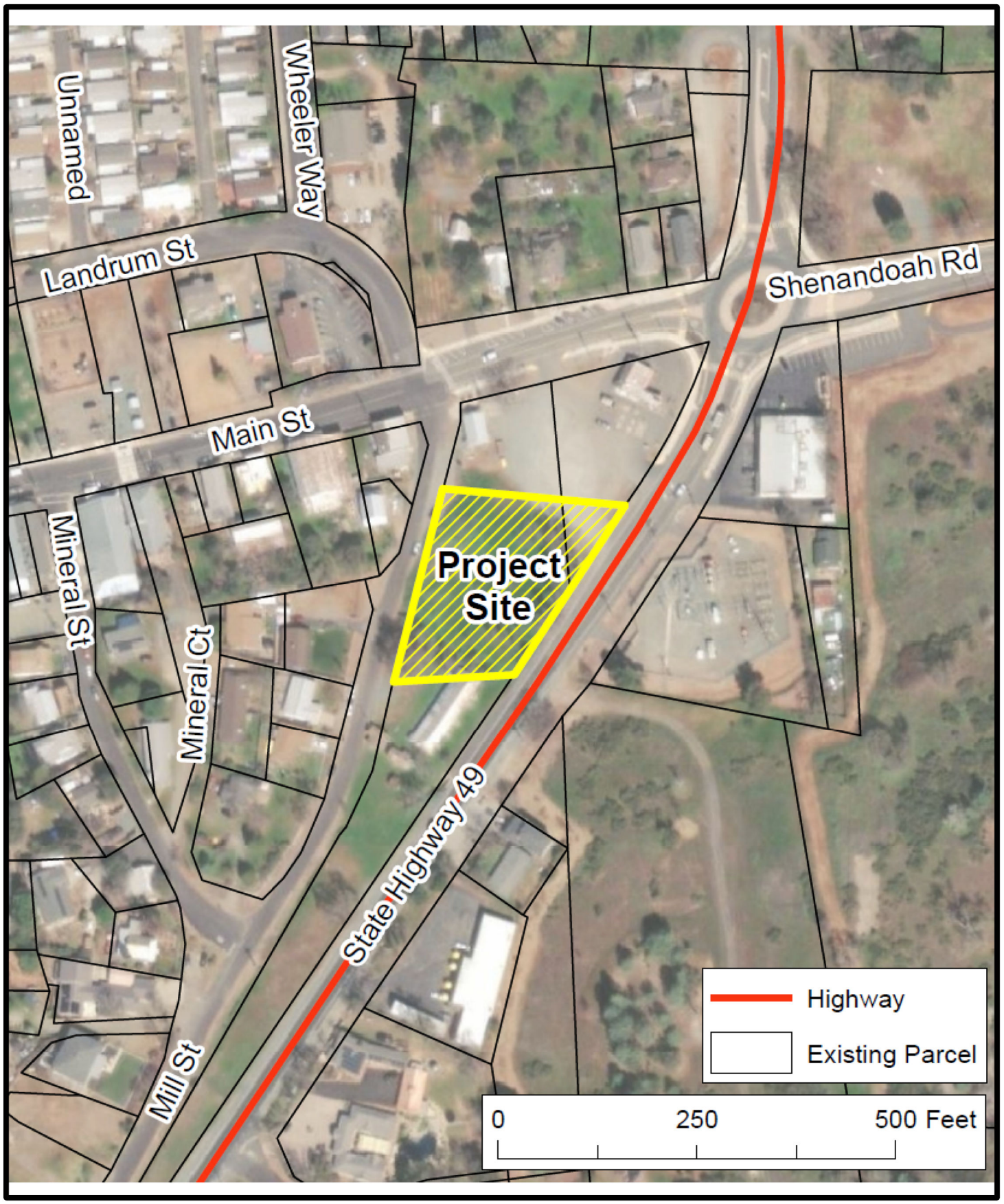
EXHIBIT 2-1
Regional Vicinity



Data Sources: Amador County; California Department of Transportation; ESRI
Map Export: 10/22/2024 9:28 AM.

EXHIBIT 2-2
Project Site Vicinity

- **South:** Mill Street and SR 49 join at the southern boundary of the site. Uses south of the project site include open space. At the intersection of Mill Street and SR 49, uses to the south and west include open space and residential, and uses to the east include residential and suburban commercial.
- **East:** The project site is bordered by SR 49 to the east. East of SR 49 are public, residential, village commercial, and suburban commercial uses. Amador 360, a wine store, is located southeast of the project site, and a bank, general store, and clothing store are located northeast of the project site.
- **West:** The project site is bordered by Mill Street to the west. Uses west of Mill Street include single family residential uses, and commercial uses are located to the northwest at the intersection of Mill Street and Main Street and along Main Street. City Hall, Lava Dog Fire and Police Supply, and Fate Wines are among the uses west of Mill Street.

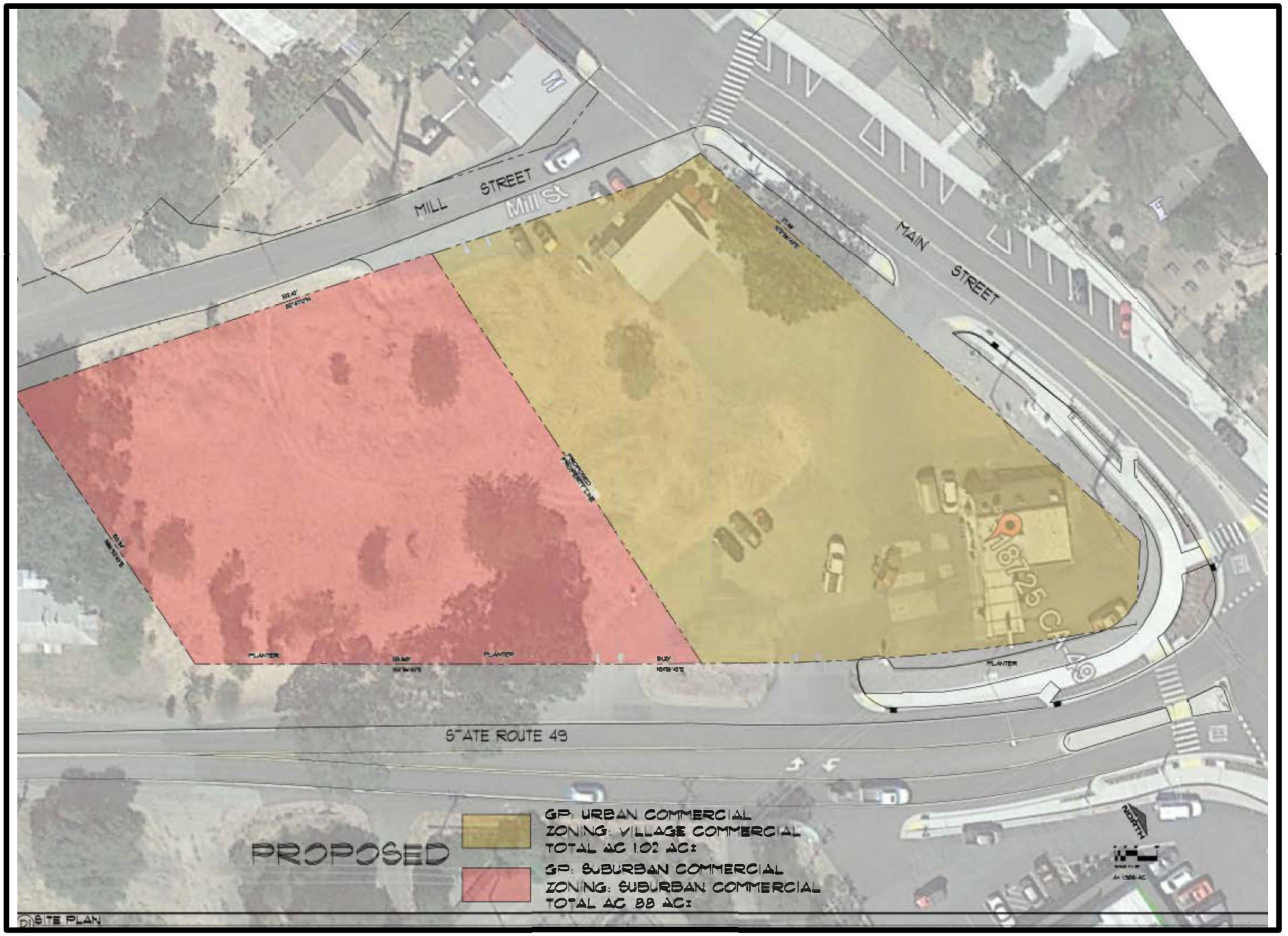
2.4 General Plan Designation and Zoning Designation

The project site currently has a General Plan (GP) land use designation of Urban Commercial. This designation applies to both the west and east parcels, as they are delineated currently. The current Zoning is Village Commercial (VC), Historic Downtown Overlay District. The City of Plymouth GP describes the Urban Commercial designation as including high intensity business, retail and entertainment uses, pedestrian-oriented and historic areas. The current Zoning of Village Commercial accommodates mixed-uses including upper-floor residential in the downtown area and is intended to retain the historic character of the buildings around Downtown.

The proposed project would include a change to the General Plan designation to accommodate the proposed parcel line reconfiguration. Upon delineation of the new, northern parcel, the proposed project would maintain the existing GP and Zoning designations, Urban Commercial and Village Commercial, respectively, for the uses currently present on-site. The proposed project involves an application to change the GP designation of the newly established southern lot to Suburban Commercial, and to change the Zoning designation to Highway Commercial; refer to Exhibit 2-3, Existing Lot Line, GP, and Zoning Designations, and Exhibit 2-4, Proposed Lot Line, GP, and Zoning Designations. The City of Plymouth GP describes the Suburban Commercial designation as providing the highest mix of commercial uses. The Highway Commercial designation accommodates uses that are automobile-oriented and may be included in overlay zones.

Data Sources: Sutton & Associates, Inc
Map Export: 10/22/2024 9:30 AM.

EXHIBIT 2-3
Existing Lot Lines, General Plan, and Zoning Designations



Data Sources: Sutton & Associates, Inc.
Map Export: 10/22/2024 9:34 AM

EXHIBIT 2-4
Proposed Lot Lines, General Plan, and Zoning Designations

3 Project Description

3.1 Project Characteristics

The project proposes to reconfigure the parcel line of an existing 1.91-acre site at 18725 CA 49, in Plymouth, California. The existing parcel is currently improved with a gas station, the Plymouth Trading Post, located in the northeast corner. The southern section of the parcel is unimproved and consists partially of a gravel lot, and primarily of an empty, vegetated area. An adjacent parcel, west of the subject property, contains the Fig Barn Café. The parcel line reconfiguration would reorient the parcel line in an east-west fashion, instead of north-south, to create a new, 1.02-acre southern parcel on the unimproved site, and retain the existing Plymouth Trading Post structure and the café on the new, northern parcel. The elements of the Plymouth Trading Post fueling facility would be removed, including tanks and piping, and a new ARCO gas station, with an AM/PM convenience store component and a car wash, would be constructed on the new southern parcel.

The existing lot lines configure lot frontage on Main Street, with Parcel 1 occupying 0.65-acre on the east side and Parcel 2 occupying 1.26-acres on the west side. The adjusted lot lines would change the lot frontage along Mill Street and Main Street, with the northern parcel occupying 0.89-acre, and the southern parcel occupying 1.02-acre.

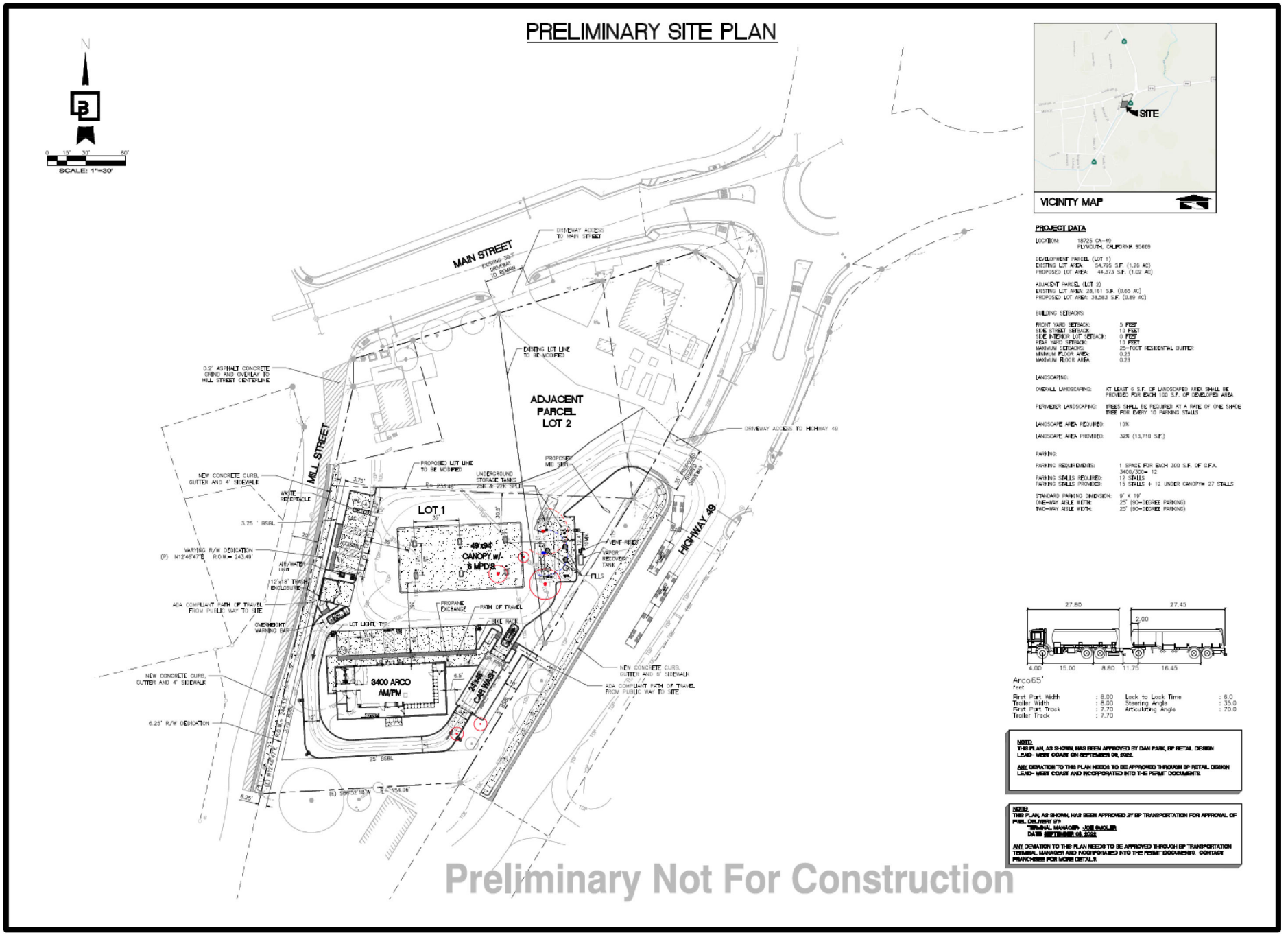
Contingent on approval of the lot line adjustment, the new northern parcel would maintain the existing General Plan and Zoning designations, which are Urban Commercial and Village Commercial, respectively, and the new southern lot would include an application to change the General Plan and Zoning designations to Suburban Commercial and Highway Commercial, respectively.

The proposed project would involve construction of an ARCO fueling facility consisting of an AM/PM convenience store and a car wash on the southern vacant lot. The convenience store would be 3,400 square-feet (SF), with a height of 30 feet, and the automatic car wash would be 22 feet 9 inches in height and would occupy 1,152 SF on a 24-by-48-foot section of the parcel. The gas station would include a 49-by-94-foot fuel canopy (4,606 SF) with a height of 18 feet 6 inches and six (6) multi-product dispensers that would create a total of twelve (12) vehicle fueling positions. The fueling facility would require the installation of three (3) underground storage tanks, one with a single compartment for unleaded fuel, and a second with two compartments, one for premium fuel and one for diesel. Refer to Exhibit 3-1, Proposed Site Plan.

Architecture and Design

The proposed buildings' architecture would be contemporary, with exterior building materials consisting of stucco, aluminum composite material in multiple colors, panelized stone veneer, clear anodized aluminum, steel awning, wood lap siding, pre-finished metal cornice, and metal roofing. The materials and color schemes used for the convenience store would be duplicated, as applicable, with the car wash. The buildings' exterior would include a combination of colors, including Great Plains Gold, Brandy Cream, pewter, orange, rustic walnut, and "Alaskan sunset". The fueling station would include pearl, yellow, warm gray, and white, with a printed bullnose decal, with blue LED light.

Standalone outdoor parking lot lights would be provided around the parking spaces for the convenience store, and wall-mounted LED fixtures would be situated around the exterior of the buildings. The canopy of the fueling station would be wrapped in a blue LED light band and have an illuminated logo on the north, east, and west sides. Each of the six proposed fuel dispensers would be illuminated. Canopy head clearance signs would be located on the north and south sides of the fueling canopy. Each fuel dispenser would also have a placard displaying the dispenser numbering system. The car wash would have two windows on the west side of the wash bay and two faux windows on the north and south sides of the structure. Vinyl letters would be displayed to label the car wash on the west and east sides, and the entrance and exit on the south and north sides, respectively. A blue vinyl decal would be applied behind the letters and around the trim of the structure.



Data Sources: Barghausen Consulting Engineers, Inc.
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EXHIBIT 3-1
Proposed Site Plan

A “no entry” sign would be installed on the north side, and an instructional sign panel would be installed at the entrance on the south side.

The convenience store would have wall posters on the left and right sides of the northern side of the structure and would be illuminated by six wall mounted sign lights. A large, internally illuminated, surface mounted wall sign would be located on the north side, and a duplicate sign would also be located on the southern side. A portable propane tank display would be located at the east side of the building. Faux windows would be installed in the tower of the structure on the north and south elevations, and twelve additional faux windows would be installed on the far edges of each side of the building, four per north and south side, and two per east and west side, for a total of fourteen faux windows. The south side of the building would have approximately 11 faux windows across the storefront, and the northern side would have approximately 26 faux windows across the storefront and around the entrance. The main entrance would be located on the north side, and one additional door would be installed on the west side.

Site Access and Parking

The project would provide a total of 27 parking stalls, including 12 at the fuel island, 11 in front of the convenience store, including an ADA accessible stall, 2 vacuum stalls at the west property line, and two electric vehicle charging station stalls at the west property line. All parking areas would utilize concrete pavement. A bicycle rack capable of storing four (4) bicycles would be installed on the eastern side of the convenience store.

Site access would be provided from one full-access, 35-foot-wide shared driveway from CA 49, approximately 174 feet south of the roundabout, and a full-access existing drive from Main Street, approximately 176 feet west of the roundabout. An easement for access rights to the shared driveway and existing driveway would be granted to the southern parcel. The car wash would be located parallel to the eastern property line, fronting CA 49.

The circulation route for the car wash would require vehicles to enter the site and drive counterclockwise around the fuel canopy area; the entrance to the car wash would be from a dedicated drive aisle located near the western property line and approximately 60 feet west of the fuel canopy. The car wash entrance would be at the southeast corner of the site, and vehicles would exit from the north side of the car wash. Fuel tankers would enter the site traveling northbound on CA 49 and turn left into the site, then left to travel around the fuel canopy and line up for a right-side discharge of fuel into the underground storage tanks. The tankers would exit the same driveway on the east side of the site and turn right to leave southbound on CA 49. A new sidewalk would be constructed along the project’s CA 49 frontage with an accessible path from the public right-of-way to the project site.

Amenities

The convenience store would provide typical elements and merchandise associated with convenience retail at ARCO/AM/PM locations. Items sold would include pre-packaged convenience grocery items, sundries, hot and cold drinks, tobacco products, beer and wine, and automobile-related convenience items. Cold storage facilities and limited on-site dry storage would be provided to support both retail sales and food service. Food preparation would be limited to warming (re-heating) and packaging for re-sale.

A propane exchange station would be installed on the eastern side of the proposed convenience store, along with a bicycle storage rack for up to four bicycles. An air/water unit would also be located adjacent to the western-most parking stall. The convenience store, fuel canopy, and car wash would have solar panels installed in accordance with the 2022 California Building Code.

The proposed project would include a 12-foot by 18-foot trash enclosure located adjacent to the car wash entrance. It would have sufficient space for regular waste receptacles and recycling receptacles. The trash enclosure would include a 6-foot-tall concrete wall with a metal gate and would match the colors of the convenience store and car wash.

Operations

The convenience store would operate 24 hours a day, 7 days a week. The car wash would typically operate between 6:00 AM and 10:00 PM. The car wash, fueling station, and convenience store would collectively have approximately 12 to 15 employees throughout a given week. Each employee would work 3, 8-hour shifts, and some employees would be part-time while others would be full-time. Approximately 2,000 customers are anticipated per day. It is projected that 1,860 vehicle trips to the commercial site would occur per day, and vendors who would serve the business would be expected to make 2 to 4 visits per day. Fuel deliveries would occur 5 times per week. There would be no recurring special events or activities outside of daily operations.

Landscaping

Landscaping would be provided at an overall coverage of 32%, or 13,710 SF. The proposed project would include perimeter landscape planters in widths varying from 10 feet to 20 feet. Trees would be provided at the rate of one shade tree for every ten parking stalls. The project would not include any fencing.

Utilities and Services

The following utilities and services would serve the project site:

- **Water:** The City of Plymouth would provide water to the project site. The City purchases its potable water wholesale from the Amador Water Agency.
- **Wastewater:** The City of Plymouth Public Works Department owns and operates the City's sewer system network and provides wastewater treatment services. The City would provide wastewater services to the project site. The proposed project would connect sewer lines to existing nearby pipelines.
- **Solid Waste:** The proposed business would contract with a local waste management company to provide solid waste removal services once per day.
- **Dry Utilities:** Pacific Gas and Electric would provide electricity services to the project site.
- **Public Services:** The project site would be served by the Amador Fire Protection District and the Amador Sheriff's Office.

3.2 Phasing and Construction

Project construction would occur in a single phase over a duration of approximately six (6) months. Construction of the project would include grading, building construction, and architectural coating. The proposed earthwork would involve approximately 1,130 cubic yards of cut and approximately 3,410 cubic yards of fill. Approximately 2,280 cubic yards of soil import would be required.

3.3 Permits and Approvals

This IS/MND is intended to serve as the primary CEQA environmental document for all actions associated with the proposed project, including all other approvals beyond the City's authority needed to implement the project. The following discretionary approvals are required for project approval.

General Plan Land Use Amendment

The project applicant has filed for a General Plan Amendment to designate the proposed southern parcel as Suburban Commercial (SC). Per the City's Municipal Code Section 19.60, the land use designation of Suburban Commercial is designed to be compatible with a neighborhood environment; it limits the floor area ratio to 1:0 and requires a landscape surface ratio of forty (40) percent. The Suburban Commercial designation permits a variety of neighborhood-serving goods and services, provided on a building scale that allows for both auto and

pedestrian ease of access. Design standards for Suburban Commercial developments ensure compatibility with residential and other commercial uses.

Zone Change

The Project Applicant has filed for a Zone Change (Section 19.26.040) to Highway Commercial (HC). Per the City's Municipal Code Section 19.60, the Highway Commercial designation accommodates commercial areas adjacent to corridors and major intersections. This designation requires a landscape surface ratio of at least twenty (20) percent, for enhancement of the street edge, parking lot screening, and buffering of adjacent uses. Uses in a Highway Commercial zone must adequately address vehicular and truck access and services while maintaining a visually pleasant image of the City. This zone type also permits limited drive-through and other auto-oriented commercial retail activities with shared access curb cuts.

Parcel Map

The Project Applicant has filed for a Lot Line Adjustment in order to reconfigure the existing north-south lot line to be oriented east-west and create separate northern and southern parcels. The proposed project would be located on the southern parcel.

Tree Removal

A Tree Removal Permit must be approved for the removal of significant and/or native trees on-site, pursuant to Section 9.20 of the City of Plymouth Municipal Code.

Conditional Use Permit

The Project Applicant has filed for a Conditional Use Permit. Per Section 19.14.040 of the Plymouth Municipal Code, the Conditional Use Permit provides a process for Planning Commission review and determination of requests for uses and activities whose effects on adjacent sites and surroundings need to be evaluated in terms of a specific development proposal. It is anticipated that uses qualifying for a Conditional Use Permit are not minor in nature, may have an impact on immediately adjacent properties and the community, and can be modified and/or conditioned to ensure compatibility.

Mitigated Negative Declaration

In compliance with the State CEQA Guidelines, the City of Plymouth would adopt an MND, prior to approval of the project. The MND serves as a finding that the project would not have a significant effect on the environment, with the incorporation of mitigation measures, as appropriate.

Ministerial Approvals

The following ministerial permits would be sought from the City of Plymouth:

- Grading Permit
- Building Permits; and
- Sign Permits

The project would require coverage under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit from the State Water Resources Control Board (SWRCB).

4 Environmental Checklist

Environmental Factors Potentially Affected

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

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

Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature _____ Date _____

4.1 Aesthetics

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS –** Except as provided in Public Resources Code Section 21099, would the project**:**				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Environmental Setting

The City of Plymouth is located in the foothills of the Sierra Nevada Mountains, in the heart of the Shenandoah Valley wine country. The City encompasses a total of 2.602 square miles and is characterized as a rural community. The project site is mostly undeveloped and vegetated. Portions of the northeast and southwest corners have been developed with vegetation clearing and/or gravel. Mature trees, including oaks, shrubs, and groundcover are located throughout the central section of the property. The site is bound by State Route (SR) 49 to the east and Mill Street to the west. Commercial uses occur to the north of the project site. There are currently no features at the site. Two existing shared access driveways are located on the eastern edge of the project site, off of SR 49. The project site is located adjacent to the intersection of Main Street and SR 49 and is in the Downtown Plymouth area. Commercial and residential uses surround the project site. Refer to Figures 4.1-1a through 4.1-4d, Existing Site Views, which provide photographs from several vantage points and depict the overall existing character of the site and adjacent areas.

Figure 4.1-1a. Existing Site Views, South-Facing from Middle of Current Property

Figure 4.1-1b. Existing Site Views, South-Facing from State Route 49

Figure 4.1-1c. Existing Site Views, South-Facing from Main Street

Figure 4.1-1d. Existing Site Views, South-Facing from Mill Street

Figure 4.1-2a. Existing Site Views, East-Facing from Middle of Current Property

Figure 4.1-2b. Existing Site Views, East-Facing from State Route 49

Figure 4.1-2c. Existing Site Views, East-Facing from Main Street

Figure 4.1-2d. Existing Site Views, East-Facing from Mill Street

Figure 4.1-3a. Existing Site Views, West-Facing from Middle of Current Property

Figure 4.1-3b. Existing Site Views, West-Facing from State Route 49

Figure 4.1-3c. Existing Site Views, West-Facing from Main Street

Figure 4.1-3d. Existing Site Views, West-Facing from Mill Street

Figure 4.1-4a. Existing Site Views, North-Facing from Middle of Current Property

Figure 4.1-4b. Existing Site Views, North-Facing from State Route 49

Figure 4.1-4c. Existing Site Views, North-Facing from Main Street

Figure 4.1-4d. Existing Site Views, North-Facing from Mill Street

Impact Analysis

a) Would the project have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. The City of Plymouth is located within the foothills of the Sierra Nevada Mountains, and is known for expansive open space areas, steep slopes and bordering ridgelines, stands of vegetation, and natural features, like the Arroyo Ditch. The Plymouth General Plan does not identify any scenic vistas; however, the General Plan Land Use and Community Characteristics Chapter addresses the protection of open space areas that include scenic ridgeline views. The ridgelines are identified as being mostly on the periphery of the community. The project site is located within the Downtown area, in the heart of Plymouth, and is not located near any ridgeline. No ridgelines are visible from the project site and no impacts on existing views of ridgelines would occur. The project site is also located more than 0.5-mile from the nearest designated open space or vegetation area within the City. There are no open space areas visible from the project site, therefore, existing views of open space areas would not be impacted by the proposed project. Therefore, project implementation would not adversely affect a scenic vista and impacts would be less than significant. No mitigation is required.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. According to the City's General Plan, the Amador County General Plan, and the Caltrans California State Scenic Highways List, there are no officially designated scenic highways within Plymouth. The entirety of State Route 49 (SR 49) through Amador County, including the section immediately east of the project site, is listed as Eligible for State Scenic Highway designation. However, Amador County has not officially designated SR 49. The nearest officially designated scenic highway is a portion of State Route 88 in eastern Amador County, from the Dew Drop Fire Station to the Alpine County line. This section of highway is located approximately 20 miles east of the project site. Since SR 49 is not officially designated, it does not receive the same level of scenic resource protection and regulations assigned to officially designated State Scenic Highways. The section of SR 49 adjacent to the project site, and the project site itself, are not located within the City of Plymouth Scenic Corridor Overlay District, the Amador County Scenic Highway Corridor Overlay District, or the Amador County Scenic Highway Ordinance area. Therefore, the project would not result in significant impacts to trees, rock outcroppings, and historic buildings within a State Scenic Highway. Impacts would be less than significant, and no mitigation is required.

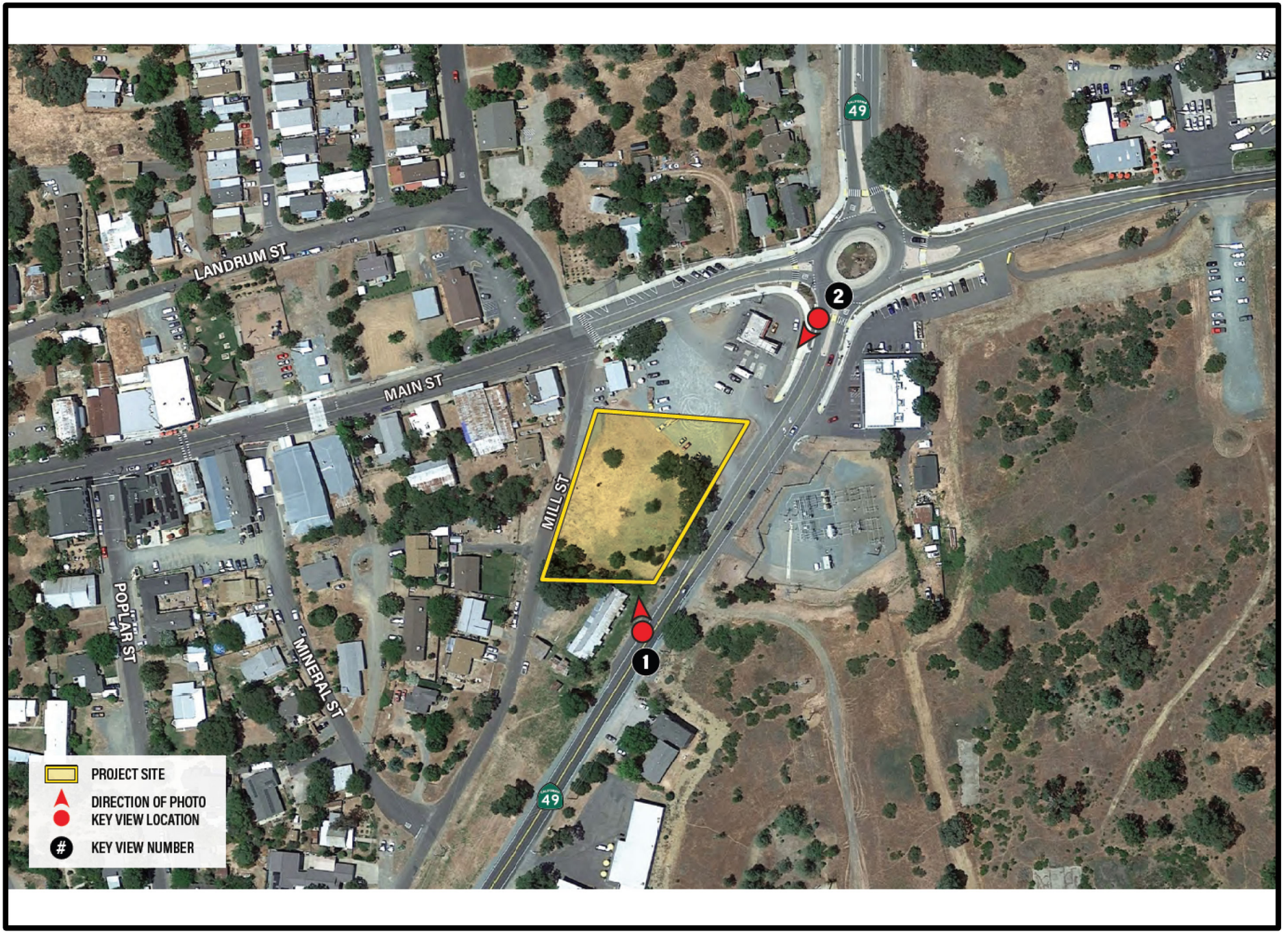
c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. The project site is located in a rural community and is surrounded by residential uses to the west, south, and north, and commercial uses to the north and east. The project site is located within the Downtown area and is not located near any ridgeline. The project site is also located more than 0.5-mile from the nearest designated open space or vegetation area within the City. The project site is therefore not a recognized scenic resource under existing conditions. The existing commercial development near the project site contains a mix of white, red, and beige color palettes. The proposed convenience store, gas station, and car wash would have similar tones of gold, cream, blue, red, brown, and white, as shown in Figures 4.1-5a and 4.1-5b, Signage Plans, as the surrounding uses. The convenience store and car wash would be painted in multiple colors, including brown, beige, and cream, and would be composed of a variety of materials, including stucco, steel, aluminum, and stone. Refer to Exhibit 4.1-1, Key View Locations, and Figures 4.1-6a through 4.1-6d for before and after view perspectives of the project site that demonstrate how the proposed project would fit into the surrounding area.

Figure 4.1-5a. Signage Plans – Front Facing

Figure 4.1-5b. Signage Plans – Rear Facing

Furthermore, the project site is located within the City of Plymouth Historic Downtown Overlay District and is therefore subject to specific design standards and guidelines that are intended to maintain the integrity and character of the historic Downtown area. The proposed project is required to undergo review by the City Planning Commission to determine its consistency with other design styles in the area. The Planning Commission shall make the final decision on compatibility with the adopted design standards. If the project is consistent with the design standards, then it would not substantially degrade the existing visual character or quality of the site and its surroundings. The Commission shall determine consistency and can establish conditions of approval to ensure compliance with the design standards.



Data Sources: Michael Baker International
Map Export: 10/22/2024 9:36 AM.

EXHIBIT 4.1-1
Key View Locations

Figure 4.1-6a. Viewpoint 1 Before Project

Figure 4.1-6b. Viewpoint 1 After Project

Figure 4.1-6c. Viewpoint 2 Before Project

Figure 4.1-6d. Viewpoint 2 After Project

Pursuant to Municipal Code Section 19.66.020, development standards and design guidelines applicable to the Village Commercial Zoning District apply to land within the Downtown Historic Overlay District. However, the proposed project includes applications for a General Plan Amendment and Zoning Change to change the land use designation of the proposed southern parcel to Suburban Commercial, and the zoning to Highway Commercial (HC).

The project would be required to comply with Section 19.60.020 of the Municipal Code, which provides requirements for design and operational standards, such as orientation of buildings and uses, parking, traffic, and landscaping. The requirements for the HC zone include a landscape surface ratio of at least 20 percent, for enhancement of the street edge, parking lot screening, and buffering of adjacent uses. Uses must adequately address vehicular and truck access and services while maintaining a visually pleasant image of the City. Limited drive-through and other auto-oriented commercial retail activities are appropriate in the HC zone, with consolidated curb cuts. The proposed project has been designed in accordance with these provisions. Additionally, Table 4.1-1 provides a review of the project's consistency with the development standards of the HC zone.

Table 4.1-1
Consistency with Highway Commercial Development Standards

Development Standard	Project Consistency
Minimum Lot Area: 9,000 SF	**Consistent**. The proposed project site would be 1.02-acres.
Floor Area Ratio – Minimum: 0.10	**Consistent.** The proposed project would have a floor area ratio of approximately 0.2.
Floor Area Ratio – Maximum: 0.32	**Consistent.** The proposed project would have a floor area ratio of approximately 0.2.
Maximum Impervious Surface: 75%	**Consistent.** The proposed project would include landscaping at an overall coverage of 32%.
Setbacks (Minimum): Front: 25 ft Rear: 25 ft Side Yard – Street: 10 ft Side Yard – Interior Lot: 0 ft	**Consistent:** The proposed project has been designed to accommodate all required setbacks.
Residential Buffer: 25 ft	**Consistent.** The proposed project structures would be located more than 25 feet away from the nearest residential use.
Maximum Building Lot Coverage: 50%	**Consistent.** The building lot coverage of the proposed project would be approximately 20 percent.
Landscape Area: 25%	**Consistent.** The proposed project would include landscaping at an overall coverage of 32%.
Height Primary Structure: 35 ft	**Consistent.** The tallest proposed building included in the proposed project would be 30 feet in height.
Height Accessory Structure: 12 ft	Not applicable to the proposed project.
Setback Accessory Structure: 5 ft	Not applicable to the proposed project.

Compliance with the Plymouth Municipal Code would ensure that the design of the project uses would be compatible with the surrounding land uses and the General Plan requirements. With approval of the General Plan Amendment and Zone Change request for the project, the proposal would not conflict with applicable zoning or the General Plan and would comply with City regulations. Impacts would be less than significant, and no mitigation is required.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The proposed project would result in new and increased sources of nighttime lighting and illumination, including building display and store lighting, signs, streetlights, and lights associated with vehicular travel. Existing day and nighttime lighting in the project area occurs along Main Street as a result of streetlamps and businesses, and along the east side of SR 49 from existing businesses.

Chapter 19.80, Lighting, of the Plymouth Municipal Code establishes limits on the types of fixtures and size of bulbs used in all aspects of development. The project is required to comply with this ordinance, which is verified as part of the building permit application process and again prior to occupancy during building and site inspections of the site to ensure that the project's lighting would not create significant impacts. Consistent with the City's lighting standards, all proposed exterior light fixtures must have full downward shielding to reduce light and glare impacts on trespass to adjoining properties and public rights-of-way. All exterior lighting must be automatically controlled from dusk to dawn to turn off or lower light levels during inactive periods. All proposed lighting for the project would be designed to contain new sources of lighting within the boundaries of the property.

Therefore, it is concluded that the project would not adversely affect day or nighttime views in the area, and the project would not result in significant impacts to night sky pollution. No mitigation is required.

Regulatory Requirements

State

California Outdoor Advertising Act

Advertising structures associated with the proposed project would be required to comply with the provisions of the California Outdoor Advertising Act outlined in Business and Professions Code Sections 5200, 5272, and 5274, and California Code of Regulations 2243 and 2246.

Local

Plymouth General Plan

Project design would be required to comply with the Downtown Plymouth Combined Zone Design Review, Standards, and Guidelines, for the Historic Downtown Overlay District.

Plymouth Municipal Code

Exterior lighting for the project shall be designed and constructed in compliance with Chapter 19.80, Lighting, of the Plymouth Municipal Code.

Mitigation Measures

Project implementation would not result in significant impacts related to aesthetics; therefore, no mitigation measures are required.

4.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Impact Analysis

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. Based on a review of the California Department of Conservation Farmland Mapping and Monitoring Program, there are no lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on or near the project site.[1] Therefore, no impact would occur, and no mitigation is required.

[1] California Department of Conservation. 2020. *California Important Farmland Finder*. Accessed 11 May 2023. https://maps.conservation.ca.gov/DLRP/CIFF/.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. According to the City of Plymouth General Plan, the current Land Use designation is Urban Commercial. The site is not within a Williamson Act contract and would not conflict with existing zoning for agricultural use or a Williamson Act contract. Therefore, no impact would occur, and no mitigation is required.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. Forest land does not exist on the project site and the site is not zoned for forest or timberland use. The proposed project would not conflict with existing zoning or cause rezoning of forest land, pursuant to Public Resources Code Section 12220(g), timberland, pursuant to Public Resources Code Section 4526, or timberland zoned Timberland Production, pursuant to Government Code Section 51104(g). Therefore, no impact would occur, and no mitigation is required.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As noted in Section 4.2(c), designated forest land does not exist on-site and thus, there would not be a conversion of forest land to non-forest land. Therefore, no impact would occur, and no mitigation is required.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The proposed project does not involve converting Farmland to non-agricultural use or conversion of forest land to non-forest use. Therefore, no impact would occur, and no mitigation is required.

Regulatory Requirements

None required.

Mitigation Measures

Project implementation would not result in significant impacts related to agriculture and forest resources. Therefore, no mitigation measures are required.

4.3 Air Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Impact Analysis

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The California Environmental Quality Act (CEQA) requires agencies to determine whether a project is consistent with all applicable air quality plans. Under the existing state and federal environmental regulatory structure, the federal government's Environmental Protection Agency is granted primary authority to establish health based ambient air quality standards and specific technology and emission requirements for sources of air pollution, regulate selected sources of air pollution, and mandate that states comply with these requirements. The federal government has the authority to withhold transportation funds from the state if certain requirements are not met. Under the State of California regulatory structure, the state's California Air Resources Board maintains primary authority to regulate mobile sources of air pollution (e.g., establish vehicle and engine emission standards), and possesses regulatory oversight authority over local and regional air pollution control agencies. Local and regional agencies maintain primary authority to regulate stationary sources of air pollution (e.g., permitting industry activities and regulating open burning).

The project site is located in the Mountain Counties Air Basin in the City of Plymouth, Amador County, and is under the jurisdiction of Amador Air District (AAD). Amador County is currently designated as nonattainment for the Federal and State ozone standards and is designated as attainment or unclassified for all other Federal and State ambient air quality standards. The nonattainment status for ozone was recently applied to the County, and an air quality plan has not been adopted. The project would require a lot line adjustment. Contingent on approval of the lot line adjustment, the north parcel would keep the existing General Plan and Zoning designations, which are Urban Commercial and Village Commercial, respectively, and the new southern lot would include an application to change the General Plan and Zoning designations to Suburban Commercial and Highway Commercial, respectively. With the approval of the General Plan Amendment and Zoning Change, the project would be consistent with the project site's land use and zoning designations. Since the project would be consistent with the land use designation and zoning for the site, the proposed development would not introduce any uses that would be incompatible with the General Plan. As such, the proposed project's impact on air quality was already analyzed in the City's General Plan and would not

interfere with the County's effort in achieving attainment. Additionally, as discussed in 3.3(b) the project would be under the relevant emissions thresholds during construction and operation. Impacts would be less than significant, and no mitigation is required.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact.

Criteria Pollutants

Carbon Monoxide (CO). CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of carbon monoxide.

Ozone (O_3). O_3 occurs in two layers of the atmosphere. The layer surrounding the Earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratosphere (the "good" ozone layer) extends upward from about 10 to 30 miles and protects life on Earth from the sun's harmful ultraviolet rays. "Bad" O_3 is a photochemical pollutant, and needs volatile organic compounds (VOCs), NO_X, and sunlight to form; therefore, VOCs and NO_X are O_3 precursors. To reduce O_3 concentrations, it is necessary to control the emissions of these O_3 precursors. Significant O_3 formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High O_3 concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While O_3 in the upper atmosphere (stratosphere) protects the Earth from harmful ultraviolet radiation, high concentrations of ground-level O_3 (in the troposphere) can adversely affect the human respiratory system and other tissues. O_3 is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of O_3. Short-term exposure (lasting for a few hours) to O_3 at elevated levels can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO_2). NO_X are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at elevated levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations). NO_2 can irritate and damage the lungs and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM_{10}). PM_{10} refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate lungs and can potentially damage the respiratory tract. On June 19, 2003, the California Air Resources Board (CARB) adopted amendments to the Statewide

24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to $PM_{2.5}$, both State and Federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection Agency (EPA) announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards. On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Mountain Counties Air Basin as an unclassified/attainment area for Federal $PM_{2.5}$ standards. On June 20, 2002, the California Air Resources Board (CARB) adopted amendments for Statewide annual ambient particulate matter air quality standards. These standards were revised and established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the Statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Sulfur Dioxide (SO_2). SO_2 is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. SO_2 is often used interchangeably with SO_X. Exposure of a few minutes to low levels of SO_2 can result in airway constriction in some asthmatics.

Volatile Organic Compounds (VOC). VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include CO, CO_2, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms VOC and ROG are often used interchangeably (see below).

Reactive Organic Gases (ROG). Similar to VOC, ROG are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO_X react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant.

Thresholds

The AAD does not have thresholds of significance or CEQA guidance of its own and instead recommends using guidance from adjacent air districts. Due to its proximity to Sacramento County, the City of Plymouth is applying the Sacramento Metropolitan Air Quality Management District's (SMAQMD) recommended thresholds of significance to assess the projects' air quality impacts. According to the United States Environmental Protection Agency, Amador County and the City of Plymouth (located within the County of Amador) are both nonattainment for ozone. Additionally, Sacramento County is currently designated as nonattainment for the Federal and State ambient air quality standards for the Federal $PM_{2.5}$ standard, and the State PM_{10} standard. As such, SMAQMD includes more stringent thresholds that aim to bring Sacramento County into attainment. Therefore, the application of the SMAQMD's recommended thresholds provides a conservative analysis of the project's potential air quality impacts.

SMAQMD's screening criteria for construction projects generally considers projects less than 35 acres in size to be less than significant for construction air quality emissions. However, the SMAQMD's criteria states that projects should not be screened if they include demolition activities, major trenching activities, and involve cut-and-fill operations, therefore construction emissions were quantified for the project.

SMAQMD does not recommend a threshold for ozone but has regional thresholds of significance for project-emitted NO_X and ROG, refers to Table 4.3-1, Air Quality Thresholds. In developing thresholds of significance for air pollutants, SMAQMD considered the emissions levels for which a project's individual emissions would be cumulatively considerable, resulting in significance adverse air quality impacts to the region's existing air quality conditions.

Table 4.3-1
Air Quality Thresholds

Pollutant	Construction Threshold (pounds/day)	Operational Threshold (pounds/day)
NO_X (ozone precursor)	85	65
ROG (ozone precursor)	NONE	65
PM_{10}[1]	80	80
$PM_{2.5}$[1]	82	82

Source: Sacramento Metropolitan Air Quality Management District, SMAQMD Thresholds of Significance Table, April 2020.

[1] SMAQMD recommends a threshold of zero for construction and operational PM10 and PM2.5. However, if all feasible Best Available Control Technology (BACT)/ Best Management Practices (BMPs) are applied, then SMAQMD recommends a non-zero threshold. The thresholds reflected in this table are the non-zero thresholds based on application of BACT/BMPs.

Construction

The project involves construction activities associated with demolition, grading, building construction, paving, and architectural coating applications. The project would be constructed over approximately eight months and require approximately 2,280 cubic yards of soil import. Exhaust emission factors for typical diesel-powered heavy equipment are based on the California Emissions Estimator Model version 2022.1 (CalEEMod) program defaults. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported on- or off-site. The analysis of daily construction emissions has been prepared utilizing CalEEMod. Refer to Appendix B, Air Quality/Greenhouse Gas Emissions Modeling Results, for the CalEEMod outputs and results. As noted in Table 4.3-2, the maximum daily emissions would be far below the SMAQMD thresholds and would be less than significant.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust emissions that may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project area. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill, and truck travel on unpaved roadways (including demolition as well as construction activities). Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from grading, excavation and construction is expected to be short-term and would cease upon project completion. Most of this material is inert silicates, rather than the complex organic particulates released from combustion sources, which are more harmful to health.

Table 4.3-2
Project-Generated Construction Emissions

Emissions Source	Pollutant (pounds/day)[1, 2]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Year 1 Construction Emissions[2]	2.42	23.2	3.39	1.99
Year 2 Construction Emissions[2]	11.0	16.5	3.00	1.70
Maximum Daily Emissions[3]	***2.87***	***23.2***	***3.39***	***1.99***
SMAQMD Thresholds	—	*85*	*80*	*82*
Threshold Exceeded?	***No***	***No***	***No***	***No***

Source: Refer to Appendix B for assumptions used in this analysis.

Notes:

[1] Emissions were calculated using CalEEMod version 2022.1. Higher emissions between summer and winter are presented as a conservative analysis.

[2] Modeling assumes construction of the proposed project occurred in 2023. This would present a conservative analysis as construction technology that minimizes air quality impacts has since been improved. Modeling assumptions include compliance with all feasible Best Available Control Technology (BACT)/ Best Management Practices (BMPs): properly maintain mobile and other construction equipment; replace groundcover in disturbed areas quickly; water exposed surfaces twice daily; cover stockpiles with tarps; water all haul roads twice daily.

[3] SMAQMD recommends a threshold of zero for construction and operational PM10 and PM2.5. However, if all feasible Best Available Control Technology (BACT)/ Best Management Practices (BMPs) are applied, then SMAQMD recommends a non-zero threshold. The thresholds reflected in this table are the non-zero thresholds based on application of BACT/BMPs.

Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular health concern is the amount of PM_{10} generated as a part of fugitive dust emissions. PM_{10} poses a serious health hazard alone or in combination with other pollutants. $PM_{2.5}$ is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. $PM_{2.5}$ is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_X and SO_X combining with ammonia. $PM_{2.5}$ components from material in the Earth's crust, such as dust, are also present, with the amount varying in different locations.

The project would water the construction area twice daily to reduce PM_{10} and $PM_{2.5}$ concentrations. As depicted in Table 4.3-2, total PM_{10} and $PM_{2.5}$ emissions would not exceed the SMAQMD thresholds during construction. Thus, PM_{10} and $PM_{2.5}$ emissions impacts associated with project construction would be less than significant.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, employee commutes to the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to/from the site. As presented in Table 4.3-2, construction equipment and worker vehicle exhaust emissions (i.e., ROG, NO_X, PM_{10}, and $PM_{2.5}$) would not exceed the established SMAQMD thresholds for all criteria pollutants. Therefore, impacts in this regard would be less than significant.

ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. SMAQMD does not establish threshold for ROG emissions during construction, and therefore ROG emissions associated with the proposed project would be less than significant; refer to Table 4.3-2.

Total Daily Construction Emissions

As indicated in Table 4.3-2, criteria pollutant emissions during construction of the proposed project would not exceed the SMAQMD significance thresholds. Thus, total construction related air emissions would be less than significant.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*[2], serpentinite and ultramafic rocks are not known to occur within the project area. Thus, no impacts would occur in this regard.

Operations

Long-term operational air quality impacts consist of mobile source emissions generated from project-related traffic and emissions from stationary area and energy sources. As a conservative analysis, the emissions of existing uses are not deducted from the proposed project emissions. Emissions associated with each source are detailed in Table 4.3-3, Project-Generated Operational Emissions, and discussed below.

[2] Department of Conservation Division of Mines and Geology. 2000. *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*. August 2000. Accessed 25 September 2023. https://ww3.arb.ca.gov/toxics/asbestos/ofr_2000-019.pdf.

Table 4.3-3
Project-Generated Operational Emissions

Emissions Source	Pollutant (pounds/day)[1,2]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Project Summer Emissions				
Mobile	17.00	18.40	14.00	3.78
Area	0.32	<0.01	<0.01	<0.01
Energy	0.00	0.00	0.00	0.00
Total Summer Emissions[2]	**17.32**	**18.40**	**14.00**	**3.78**
SMAQMD Threshold	*65*	*65*	*80*	*82*
Threshold Exceeded?	**No**	**No**	**No**	**No**
Project Winter Emissions				
Mobile	14.60	20.90	14.00	3.78
Area	0.25	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00
Total Winter Emissions[2]	**14.85**	**20.90**	**14.00**	**3.78**
Significance Threshold	*65*	*65*	*80*	*82*
Threshold Exceeded?	**No**	**No**	**No**	**No**

Source: Refer to Appendix B for assumptions used in this analysis.
Notes:
[1] Emissions were calculated using CalEEMod version 2022.1.
[2] The numbers may be slightly off due to rounding.

Area Source Emissions

Area source emissions include those generated by architectural coatings, consumer products, and landscape maintenance equipment associated with the development of the proposed project. As shown in Table 4.3-3, area source emissions during both summer and winter would not exceed established SMAQMD thresholds. Impacts would be less than significant in this regard.

Energy Source Emissions

Energy source emissions would be generated as a result of energy usage associated with the proposed project. The project would not consume natural gas on-site. The primary use of electricity by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics. Criteria air pollutant emissions from electricity use were not quantified since criteria pollutants emission occur at the site of power plant, which is off-site. Therefore, energy source emissions from electricity usage would be zero. Energy source emissions would not exceed SMAQMD recommended thresholds; refer to Table 4.3-3. Impacts in this regard would be less than significant.

Mobile Source

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport PM_{10}, and $PM_{2.5}$). Project-generated vehicle emissions were estimated using CalEEMod. As discussed in the California *Emissions Estimator Model User Guide, Appendix C, Emissions Calculation Detail for CalEEMod,* mobile source emissions are generated from the trip generation inputs, vehicle miles traveled, and CalEEMod default inputs (i.e., site specific trip length, trip type, project location, etc.). According to the *Plymouth ARCO Gas Station Project Transportation Study* prepared by MAT Engineering, Inc. (dated August 25, 2023), the proposed project would

generate 1,871 average daily trips, including 136 trips during the a.m. peak hour and 158 trips during the p.m. peak hour. As shown in Table 4.3-3, mobile source emissions for both summer and winter would not exceed established SMAQMD thresholds. Therefore, impacts in this regard would be less than significant.

Total Operational Emissions

As shown in Table 4.3-3, the total operational emissions for both summer and winter would not exceed established SMAQMD thresholds. Therefore, impacts in this regard would be less than significant.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individuals [e.g., age, gender]). In particular, O_3 precursors VOCs and NO_X affect air quality on a regional scale. Health effects related to ozone are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating project-generated criteria pollutants to specific health effects or additional days of non-attainment would produce meaningless results. In other words, the project's less than significant increases in regional air pollution from criteria air pollutants would have nominal or negligible impacts on human health.

As noted in the Brief of Amicus Curiae by the South Coast Air Quality Management District (SCAQMD),[3] the SCAQMD acknowledged it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form. Further, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (SJVAPCD),[4] SJVAPCD has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts.

The SCAQMD acknowledges that health effects quantification from ozone, as an example is correlated with the increases in the ambient level of ozone in the air (concentration) that an individual person breathes. SCAQMD's Brief of Amicus Curiae states that it would take a large amount of additional emissions to cause a modeled increase in ambient ozone levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's 2012 Air Quality Management Plan, a reduction of 432 tons (864,000 pounds) per day of NO_X and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce ozone levels at the highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify ozone-related health impacts caused by NO_X or VOC emissions from relatively small projects due to photochemistry and regional model limitations.

Similarly, an attempt to quantify O_3-related health impacts caused by NOx or VOC emissions from an individual project (i.e., the proposed Gas Station project) in ADD would be highly speculative.

Per SMAQMD's *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District* (SMAQMD Guidance), SMAQMD has adopted an approach to address potential air quality health impacts.[5] The SMAQMD Guidance utilizes the same thresholds utilized to analyze projects' operational impacts. As shown in Table 4.3-3, the proposed project's operational emissions would not exceed the SMAQMD's thresholds. For the

[3] South Coast Air Quality Management District, Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno, 2014.

[4] San Joaquin Valley Air Pollution Control District, Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno, 2014.

[5] Sacramento Metropolitan Air Quality Management District, Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District, October 2020.

purpose of this analysis, as the project would not exceed SMAQMD regional thresholds for operational air emissions, the project would be assumed to result in less than significant impact with regards to air quality health impacts as well. No mitigation is required.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact.

Sensitive Receptors

To assess the potential for long-term operational and short-term emission impacts, the closest receptor location was identified as representative locations for analysis. Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, individuals with pre-existing respiratory or cardiovascular illnesses, and athletes and others who engage in frequent exercise. Structures that house these people or places where they gather to exercise are defined as "sensitive receptors;" they are also known to be locations where an individual can remain for 24 hours.

The closest sensitive receptors are residential uses located 45 feet west of the project site. Other sensitive receptors in the study area at greater distances than those identified would experience lower air impacts due to additional particle dispersion from a distance and the shielding of intervening structures.

Toxic Air Contaminants

Construction

If a project has the potential to result in toxic air contaminant (TAC) emissions with a cancer risk greater than 10 in 1 million or substantial non-cancer risk, the project would be deemed to have a potentially significant impact. Project construction activities are anticipated to involve the operation of diesel-powered equipment, which would emit Diesel Particulate Matter (DPM). In 1998, the CARB identified diesel exhaust as a TAC. Cancer health risks associated with exposures to diesel exhaust typically are associated with chronic exposure, in which a 30-year exposure period often is assumed. The project would construct mixed-use buildings while complying with the California Code of Regulations (CCR), Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. Implementation of these regulations would reduce the amount of DPM emissions from the construction of the project.

The nearest sensitive receptor to the project site is a single-family residence located 45 feet west of the project boundary. However, health impacts on sensitive receptors associated with exposure to DPM from project construction are anticipated to be less than significant because construction activities are expected to occur well below the 30-year exposure period used in health risk assessments. Specifically, the Office of Environmental Health Hazard Assessment recommends analyzing potential cancer health risk from toxic hotpots using a 30-year exposure duration.[6] The 30-year exposure duration would represent a sensitive receptor being exposed to a toxic pollutant over a period of 30 years. It should be noted that the proposed project would be constructed over a period of six months, which only represents approximately two percent of the recommended 30-year exposure duration. Since construction emissions would be short-term and intermittent in nature, construction activities would not generate TAC emissions at high enough exposure concentrations to represent a health hazard. Therefore, construction of the proposed project is not anticipated to result in an elevated cancer risk to nearby sensitive receptors and the impact would be less than significant.

Operations

[6] Office of Environmental Health Hazard Assessment, *Air Toxic Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments,* February 2015.

The project would involve operation of a gas station with convenient store and car wash, including convenient store and car wash operation, occasional truck trips for vendor delivery and trash pickups, and landscaping maintenance operations. Refueling at gasoline dispensing facilities releases benzene into air, which is a toxic air contaminant and may cause health risk to nearby sensitive receptors. The risk level for a gasoline facility with a throughput of 3.6 million gallons per year is 10 per million at a distance of 50 feet from fence line, which is the SMAQMD significance threshold for health risk.[7] According to data found on California Energy Commission, the City of Angels Camp, a rural City near Plymouth, sold 1,471,478 gallons of gas in 2022.[8] The City of Angels Camp has three times the population of the City of Plymouth and is located at the intersection of two highways.[9] As such, throughput of the proposed gas station in the City of Plymouth would be significantly below 3.6 million per year due to its size and location, which would not cause health risk over 10 per million. Additionally, a gas station already exists at the project site. The proposed project would have upgraded emission control systems, which would decrease emissions of benzene by more than 90 percent compared with an uncontrolled facility.[10] Therefore, operation of the proposed project is not anticipated to result in an elevated cancer risk to nearby sensitive receptors. Impacts would be less than significant in this regard.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.).

Amador County and Sacramento County are designated as attainment areas for the Federal and State CO standards. There has been a decline in CO emissions even though vehicle miles traveled on U.S. urban and rural roads have increased. Nationwide estimated anthropogenic CO emissions have decreased 68 percent between 1990 and 2014. In 2014, mobile sources accounted for 82 percent of the nation's total anthropogenic CO emissions.[11] CO emissions have continued to decline since this time. Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

A potential CO hotspot may occur at any location where the background CO concentration already exceeds 20 parts per million (ppm), which is the 1-hour California ambient air quality standard. The closest monitoring station to the project site that monitors CO concentration is the Sacramento - Bercut Drive Monitoring Station, and the maximum CO concentration was measured at 2.092 ppm in 2022.[12] Given that the background CO concentration does not currently exceed 20 ppm, a CO hotspot would not occur at the project site. Therefore, CO hotspot impacts would be less than significant in this regard. No mitigation is required.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. Land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified as being associated with odors. However, the gas station would release chemicals with odor during fueling. The odors from gasoline products could be noticeable in the immediate vicinity of the site. The nearest sensitive receptors consisting of existing residentials are located 100 feet from the gas pumps. It is unlikely that the odors from the pumps would be

[7] California Air Resource Board, Air Quality and Land Use Handbook: A Community Health Perspective, April 2005.
[8] California Energy Commission, CEC-A15 Gasolines Sales by Cities, https://www.energy.ca.gov/media/5869, accessed September 28, 2023.
[9] State of California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2023, May 2023.
[10] California Air Resource Board, Air Quality and Land Use Handbook: A Community Health Perspective, April 2005.
[11] United States Environmental Protection Agency¸ Carbon Monoxide Emissions, https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=10, accessed by September 26, 2023.
[12] California Air Resources Board, Air Quality and Meteorological Information, https://www.arb.ca.gov/aqmis2/aqdselect.php?tab=specialrpt, accessed September 27, 2023.

distinguishable at this distance, as odors generated from proposed uses would quickly dissipate and be reduced with increasing distance from the source. Pursuant to California Code of Regulations, Title 13, Section 2485, all diesel-fueled commercial motor vehicles would not be allowed to idle for more than five minutes at any locations. As such, the project would not generate objectionable odors, and impacts would be less than significant.

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust and architectural coatings. However, construction-related odors would be short-term in nature and cease upon project completion. In addition, the project would be required to comply with the California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, which minimize the idling time of construction equipment either by requiring equipment to be shut off when not in use or limiting idling time to no more than five minutes. Compliance with these existing regulations would further reduce the detectable odors from heavy-duty equipment exhaust. Any odor impacts to existing adjacent land uses would be short-term and negligible. As such, the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be less than significant in this regard.

Regulatory Requirements

None required.

Mitigation Measures

Project implementation would not result in significant impacts related to air quality; therefore, no mitigation measures are required.

4.4 Biological Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Environmental Setting

The information in this section is based on the Biological Resources Assessment (BRA), prepared by Hunting Environmental LLC, dated October 16, 2023, and included in Appendix C. The purpose of the BRA was to determine whether development of the proposed project could potentially affect sensitive biological resources located on or adjacent to the site. The BRA analyzed potential effects on sensitive biological resources and jurisdictional areas associated with the proposed project based on a field survey of the site and a review of existing documentation, topographic maps, aerial photographs, soil surveys, special-status species databases, and local goals and policies.

According to the BRA, the project site is characterized by two vegetative communities: urban/disturbed and ruderal. The northeast and southwest corners of the project site are considered disturbed, and the remainder of the project site is considered ruderal.

Urban/Disturbed

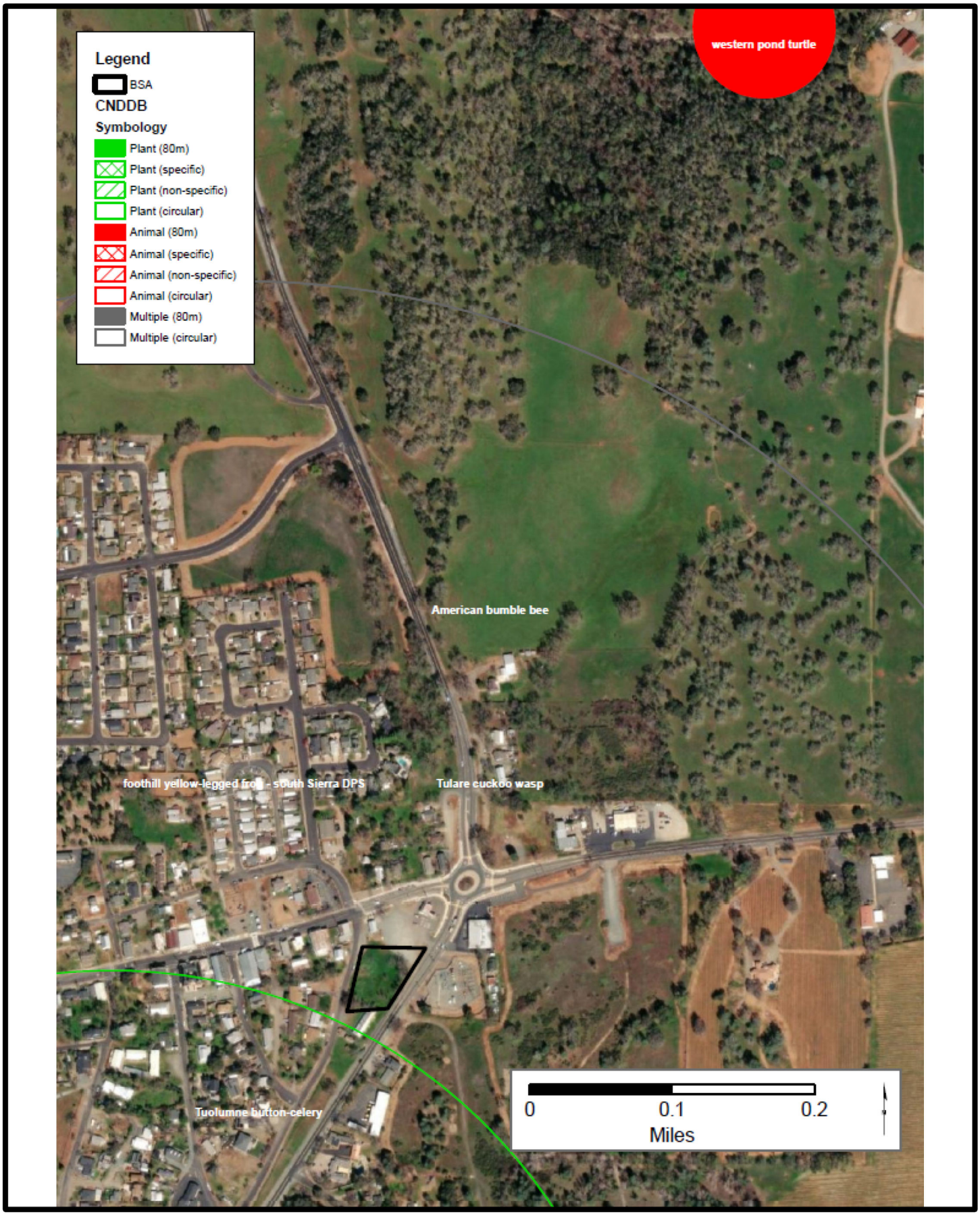
Urban communities are classified as areas that have been heavily modified by humans, including roadways, existing buildings, and structures, as well as recreation fields, lawns, and landscaped vegetation found in residential yards. Because of the high degree of disturbance in these areas, they generally have low habitat value for wildlife; however, migratory birds may find limited nesting and foraging opportunities in trees and shrubs scattered throughout urban areas. Typically, the species composition in urban areas consists of a mix of native and non-native trees, shrubs, flowers, and turf grass. Wildlife adapted to living in heavily urbanized areas may also be found in this type of environment. The project site contains 0.200 acres of urban / disturbed community.

Ruderal

Ruderal communities occur in areas of disturbances such as along roadsides, trails, parking lots, etc. These communities are subjected to ongoing or past disturbances (e.g., vehicle activities, mountain bikes, mowing). Ruderal habitat in disturbed areas supports a diverse weedy flora. The project site includes ruderal vegetation along roadways and trails and within undeveloped areas. A distinguishing characteristic of urban and ruderal habitats is the mixture of native and exotic plant species. Native and introduced animal species that are tolerant of human activities often thrive in urban and ruderal habitats. Birds and mammals that occur in these areas typically include introduced species adapted to human habitation. Some native species persist in commercial development lands. The project site contains 0.821 acres of ruderal community.

Regional Species and Habitats of Concern

The U.S. Fish and Wildlife Service (USFWS), California Natural Diversity Database (CNDDB), and California Native Plant Society (CNPS) database queries identified a few special-status species with the potential to be in the BRA study area. Exhibit 4.4-1, Potential Special-Status Species, depicts CNDDB occurrence data within one mile of the BRA study area. Table 4.4-1 provides a summary of all species identified in the database queries, a description of the habitat requirements for each species, and conclusions regarding the potential for each species to occur at the project site.



Data Sources: Hunting Environmental
Map Export: 10/22/2024 9:39 AM.

EXHIBIT 4.4-1
Potential Special-Status Species

Table 4.4-1
Special-Status Species in the Project Vicinity

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	Habitat	Impacts Analyzed	Rationale
Plants							
Eryngium pinnatisectum	Tuolumne button-celery	—	—	1B.2	Broadleaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest; often on clay soils, cliffs, or near drainages; at elevations between 260 and 1,085 feet.	N	The site is ruderal previously graded and does not provide suitable habitat for this species; This plant was not observed on the site. The site is outside of the elevation range of the species.
Insects							
Danaus plexippus	Monarch Butterfly	Candidate	—	N/A	Milkweed and flowering plants are needed for monarch habitat. Adult monarchs feed on the nectar of many flowers during breeding and migration, but they can only lay eggs on milkweed plants. For overwintering monarchs, habitat with a specific microclimate is needed for protection from the elements, as well as moderate temperatures to avoid freezing. These conditions vary between populations Monarchs living west of the Rocky Mountain range in North America primarily overwinter in California at sites along the Pacific Coast, roosting in eucalyptus, Monterey pines and Monterey cypress trees.	N	The site does not contain milkweed.
Amphibians							
Rana boylii	Foothill yellow-legged frog	PE	SE	N/A	Frequents rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. Sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools. From sea level to 6,700 feet (2,030m).	N	Suitable habitat not present. There are no streams, pools, or ephemeral waters with nearby woodlands on-site.

Table 4.4-1
Special-Status Species in the Project Vicinity

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	Habitat	Impacts Analyzed	Rationale
Rana draytonii	California red-legged frog	FT	SSC	N/A	Found mainly near ponds in humid forests, woodlands, grasslands, coastal scrub, and streamsides with plant cover. Most common in lowlands or foothills. Frequently found in woods adjacent to streams. Breeding habitat is in permanent or ephemeral water sources; lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps. Ephemeral wetland habitats require animal burrows or other moist refuges for estivation when the wetlands are dry. From sea level to 5,000 ft (1,525 m).	N	Suitable habitat not present. There are no streams, pools, or ephemeral waters with nearby woodlands on- site.
Reptiles							
Actinemys marmorata	Western Pond Turtle	Status Under Review	SSC	N/A	Occurs in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, and either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater.	N	Aquatic habitats are not present in the BRA study area.

Source: CDFW 2023a, USFWS 2023a
Notes:
Federal & State Status
(FC) Federal Candidate
(FD) Federally Delisted
(FE) Federal Endangered
(FP) Fully Protected
(FT) Federal Threatened
(PT) Proposed Threatened
(SCE) State Candidate Endangered
(SCT) State Candidate Threatened
(SE) State Endangered
(SR) State Rare
(SSC) State Species of Special Concern
(ST) State Threatened
(X) Federally Designated Critical Habitat

CNPS Rare Plant Rank
Rareness Ranks
(1A) Presumed Extinct in California
(1B) Rare, Threatened, or Endangered in California and Elsewhere
(2B) Rare, Threatened, or Endangered in California, But More Common Elsewhere
Threat Ranks
(0.1) Seriously threatened in California
(0.2) Fairly threatened in California
(0.3) Not very threatened in California

Impact Analysis

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant With Mitigation Incorporated. The project site does not support Federally and State-listed species, but the project site contains many native and nonnative mature trees which provide suitable nesting habitat for raptors and migratory birds. All native breeding birds (except game birds during the hunting season), regardless of their listing status, are protected under the Migratory Bird Treaty Act. The Migratory Bird Treaty Act prohibits the kill or transport of native migratory birds, or any part, nest, or egg of such bird unless allowed by another regulation adopted in accordance with the Act. Neither bird specimen nor nests were observed during the biological survey, however birds and/or bird nests could be present during land clearing activities. As a result, vegetation clearing during the nesting season could result in direct impacts to nesting birds should they be present. The removal of trees during the nesting season could potentially have a significant adverse effect on nesting raptors. Noise and other human activity may result in nest abandonment if nesting birds are present on-site.

In order to reduce potential impacts to nesting native avian species to a less than significant level, implementation of Mitigation Measure BIO-1 is required. Implementation of this measure would reduce impacts to nesting birds in the area by requiring preconstruction surveys and avoidance if necessary. Following compliance with Mitigation Measure BIO-1, impacts to candidate, sensitive, or special-status species, including nesting birds and/or raptors, would be less than significant.

Operation of the proposed project may deter nesting but is not anticipated to directly result in nest abandonment. The proposed project would provide landscaping at an overall coverage of 32%, or 13,710 SF. The proposed project would include perimeter landscape planters in widths varying from 10 feet to 20 feet. Trees would be provided at the rate of one shade tree for every ten parking stalls. Trees would be placed along the southern and eastern boundaries of the project site. The proposed new trees could potentially provide habitat opportunities for special-status species and/or migratory birds. Because the project site does not provide suitable habitat under existing conditions, development of the proposed project would not decrease the suitability of the site for special-status or migratory bird species compared to existing conditions. Impacts related to operation of the proposed project would be less than significant.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. The BRA concluded that no riparian habitat or other sensitive communities are present on the project site. No impact would occur, and no mitigation is required.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. A preliminary jurisdictional determination concluded that there were no signs of wetlands or other waters on the project site. Based on the United States Fish and Wildlife Service National Wetlands Inventory mapper, there are no federally recognized wetlands onsite.[13] No impact would occur, and no mitigation is required.

[13] United States Fish and Wildlife Service. "National Wetlands Inventory surface waters and wetlands." Accessed 18 October 2024. https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. Available data on movement corridors and linkages was accessed via the CDFW BIOS Viewer (2023). Data reviewed included the Essential Connectivity Areas [ds623] layer and the Missing Linkages in California [ds420] layer. The project is not located within an identified corridor. In addition, the majority of the project site is either developed or has been disturbed by previous and ongoing tilling, grazing, or some other form of disturbance. Furthermore, the project site abuts urban uses which further impair any corridor function. As such, the project would have no impact on the movement of any native resident or migratory fish or wildlife species or wildlife corridor. No mitigation is required.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact. There are five trees, including oak trees, slated for removal by the proposed project. These trees would be subject to the Plymouth Municipal Code, Chapter 8.20, Tree Preservation and Tree Removal Permits. Applicable provisions from Plymouth Municipal Code Chapter 8.20 include the following:

8.20.040 Removal of Heritage and Protected Tree - Permit

A. Except as otherwise provided within this Chapter, any person desiring to remove, or significantly prune one or more Heritage or Protected Trees from any private or public property shall apply to the City Manager or his/her designee for a tree removal permit. The application for a tree removal permit shall be made on forms provided by the City and shall include a list of the number of tree(s) to be removed, with the species of each tree and its size measured dbh, a topographic map showing the location of the trees relative to any watercourses or natural drainage and manmade features, and explanation of the reason for the removal of each such tree. The application shall be signed by the owner of the land on which the tree is located.

B. The Community Development Director shall review each application and shall determine:

1. The condition of the tree or trees with respect to disease, danger of falling, proximity to existing or proposed structures, and interference with utility services based on the opinion of an Arborist;
2. The necessity to remove the tree or trees in order to construct any proposed improvements to allow economic development of the property;
3. The topography of the land and the effect of the removal of the tree on erosion, soil retention, and diversion or increased flow of surface waters; and
4. What level of review is required under the California Environmental Quality Act ("CEQA").

C. The Community Development Director shall make his/her recommendations to the City Manager. The application may be approved, denied, or conditionally approved by the City Manager or his/her designee after consultation with an Arborist, the cost of which shall be paid for by the applicant in advance. The City Manager or his/her designee shall give priority to any applications for the removal of trees based on hazard or danger of disease. of approval imposed by the approving body at the tree removal site. The permit, or the conditions of approval granted by the approving body, shall entitle the applicant to remove only the tree or trees approved for removal.

8.20.050 Grading and Paving involving Heritage or Protected Trees - Permit

A. Any person proposing to grade or pave within the Protected Zone of a Heritage or Protected Tree shall first apply to the City Manager or his/her designee for a tree removal permit. The application for a permit shall be made on forms provided by the

City and shall indicate all protected zones in which the applicant wishes to grade and/or pave with the species of each tree and its size measured dbh, the amount of cut or fill in the protected zone, the location of the trees relative to any watercourses or natural drainage and manmade features, and explanation of the reason for the grading or paving. The application shall be signed by the owner of the land on which the tree is located. Upon request of the City Manager, the applicant shall provide a grading plan.

B. The City Manager or his/her designee and the City Engineer shall review each application and shall impose limits based on the opinion of an Arborist, the cost of which opinion shall be paid for by the applicant in advance.

1. The extent of cut or fill in proximity to the tree which may be allowed without causing damage or death to the tree;
2. The limit of any paving in proximity to the tree which may be allowed without causing damage or death to the tree.

8.20.060 Tree Removal Permits for Trees on Undeveloped Property

A. An application for a tree removal permit on undeveloped property must, in addition to the other required submissions, include a professionally prepared habitat analysis. A biologist shall be consulted as part of the required habitat analysis. Additional studies may also be required as determined by the City Manager or his/her designee. Sites which the City Manager, Registered Professional Forester/Arborist, or Community Development Director determines to be potential oak woodlands shall be analyzed for both individual tree condition as well as potential habitats.

With compliance with Plymouth Municipal Code Chapter 8.20, the proposed project would have a less than significant impact on local policies and ordinances protecting biological resources, including trees. No mitigation is required.

With compliance with the Municipal Code, the proposed project would result in less than significant impacts to local policies and ordinances protecting biological resources. No mitigation is required.

f) Would the project 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 conservation plans that include the proposed project site. No impact would occur, and no mitigation is required.

Regulatory Requirements

Federal

Endangered Species Act

The Endangered Species Act of 1973 (FESA), as amended, provides protective measures for federally listed threatened and endangered species, including their habitats, from unlawful take (16 United States Code [USC] Sections 1531–1544). FESA defines "take" to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Title 50, Part 222, of the Code of Federal Regulations (50 CFR Section 222) further defines "harm" to include "an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns including feeding, spawning, rearing, migrating, feeding, or sheltering."

FESA Section 7(a)(1) requires federal agencies to utilize their authority to further the conservation of listed species. FESA Section 7(a)(2) requires consultation with the US Fish and Wildlife Service (USFWS) and/or the

National Marine Fisheries Service (NMFS) if a federal agency undertakes, funds, permits, or authorizes (termed the federal nexus) any action that may affect endangered or threatened species, or designated critical habitat. For projects that may result in the incidental take of threatened or endangered species, or critical habitat, and that lack a federal nexus, a Section 10(a)(1)(b) incidental take permit can be obtained from the USFWS and/or the NMFS. The proposed project would not affect federally-listed species, and no take permit is required.

Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC Sections 703–711). The act makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Section 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR Section 21). The act also prohibits the kill or transport of native migratory birds. Though birds and bird nests were not observed onsite during the biological survey, birds are transient species and seasonal habitat users and could occur at the project site during construction. Mitigation Measure BIO-1 is required to minimize potential impacts to nesting birds.

State

California Endangered Species Act

Under the California Endangered Species Act (CESA), the California Department of Fish and Wildlife (CDFW) has the responsibility for maintaining a list of endangered and threatened species (California Fish and Game Code (FGC) Section 2070). The CDFW also maintains a list of "candidate species," which are species formally noticed as being under review for potential addition to the list of endangered or threatened species, and a list of "species of special concern," which serve as a species "watch lists."

Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present and determine whether the proposed project will have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of CESA. Taking of protected species incidental to otherwise lawful management activities may be authorized under FGC Section 206.591. Authorization from the CDFW would be in the form of an incidental take permit. The project site does not support State-listed species, and no incidental take permit would be required.

California Fish and Game Code

Native Plant Protection Act

The Native Plant Protection Act (FGC Sections 1900–1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered (as defined by the CDFW). An exception in the act allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify the CDFW and give that state agency at least 10 days to retrieve the plants before they are plowed under or otherwise destroyed (FGC Section 1913). Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project. The project site does not support plant species that fall under the Native Plant Protection Act.

Birds of Prey

Under FGC Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. Birds of prey could potentially utilize the project site for nesting (See Impact Analysis (a) and refer to Mitigation Measure BIO-1).

Fully Protected Species

California statutes also afford "fully protected" status to a number of specifically identified birds, mammals, reptiles, and amphibians. These species cannot be taken, even with an incidental take permit. FGC Section 3505 makes it unlawful to take "any aigrette or egret, osprey, bird of paradise, goura, numidi, or any part of such a bird." FGC Section 3511 protects from take the following fully protected birds: (a) American peregrine falcon (*Falco peregrinus anatum*); (b) brown pelican (*Pelecanus occidentalis*); (c) California black rail (*Laterallus jamaicensis coturniculus*); (d) California clapper rail (*Rallus longirostris obsoletus*); (e) California condor (*Gymnogyps californianus*); (f) California least tern (*Sterna albifrons browni*); (g) golden eagle (*Aquila chrysaetos*); (h) greater sandhill crane (*Grus canadensis tabida*); (i) light-footed clapper rail (*Rallus longirostris levipes*); (j) southern bald eagle (*Haliaeetus leucocephalus leucocephalus*); (k) trumpeter swan (*Cygnus buccinator*); (l) white-tailed kite (*Elanus leucurus*); and (m) Yuma clapper rail (*Rallus longirostris yumanensis*).

FGC Section 4700 identifies the following fully protected mammals that cannot be taken: (a) Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*); (b) bighorn sheep (*Ovis canadensis*), except Nelson bighorn sheep (subspecies *Ovis canadensis nelsoni*); (c) Guadalupe fur seal (*Arctocephalus townsendi*); (d) ring-tailed cat (genus *Bassariscus*); (e) Pacific right whale (*Eubalaena sieboldi*); (f) salt-marsh harvest mouse (*Reithrodontomys raviventris*); (g) southern sea otter (*Enhydra lutris nereis*); and (h) wolverine (*Gulo gulo*).

FGC Section 5050 protects from take the following fully protected reptiles and amphibians: (a) blunt-nosed leopard lizard (*Crotaphytus wislizenii silus*); (b) San Francisco garter snake (*Thamnophis sirtalis tetrataenia*); (c) Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*); (d) limestone salamander (*Hydromantes brunus*); and (e) black toad (*Bufo boreas exsul*).

FGC Section 5515 also identifies certain fully protected fish that cannot lawfully be taken even with an incidental take permit: (a) Colorado River squawfish (*Ptychocheilus lucius*); (b) thicktail chub (*Gila crassicauda*); (c) Mohave chub (*Gila mohavensis*); (d) Lost River sucker (*Catostomus luxatus*); (e) Modoc sucker (*Catostomus microps*); (f) shortnose sucker (*Chasmistes brevirostris*); (g) humpback sucker (*Xyrauchen texanus*); (h) Owens River pupfish (*Cyprinoden radiosus*); (i) unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*); and (j) rough sculpin (*Cottus asperrimus*).

Fully protected species do not occur on the project site.

California Wetlands and Other Water Policies

The SWRCB and its various departments do not authorize or approve Projects that fill or otherwise harm or destroy coastal, estuarine, or inland wetlands. Exceptions may be granted if all of the following conditions are met:

1. The Project is water dependent.
2. No other feasible alternative is available.
3. The public trust is not adversely affected.

Nongovernmental Agency

California Native Plant Society

The California Native Plant Society (CNPS) is a nongovernmental agency that classifies native plant species according to current population distribution and threat level, in regard to extinction. The data is utilized by the CNPS to create and maintain a list of native California plants that have low numbers or limited distribution or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Plants of California (CNPS 2015). Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review.

The following identifies the definitions of the CNPS listings:

- **List 1A:** Plants believed to be extinct
- **List 1B:** Plants that are rare, threatened, or endangered in California and elsewhere

- **List 2B:** Plants that are rare, threatened, or endangered in California but are more numerous elsewhere

All of the plant species on Lists 1 and 2 meet the requirements of the Native Plant Protection Act Section 1901, Chapter 10, or FGC Section 2062 and Section 2067 and are eligible for state listing. Plants appearing on List 1 or 2 are considered to meet the criteria of CEQA Section 15380, and effects on these species are considered "significant." Plants on List 3 (plants about which more information is needed) and/or List 4 (plants of limited distribution), as defined by the CNPS, are not currently protected under state or federal law.

Local

Plymouth General Plan

The City's General Plan identifies specific goals, objectives, and policies regarding natural resources. The General Plan serves as the overall guiding policy document for land use, development, and environmental quality for the City. Section 5 (Parks, Open Space, Conservation and Schools Element) of the General Plan includes goals and policies to preserve, protect, enhance, and promote the city's valuable natural resources. The General Plan identifies specific goals and policies regarding biological and natural resources.

Mitigation Measures

MM-BIO-1: If project-related activities are to be initiated during the bird nesting season (January 15 to August 31), a pre-construction nesting bird clearance survey shall be conducted by a qualified biologist no more than three days prior to the start of any vegetation removal or ground disturbing activities to confirm if active bird nests are present to avoid and minimize impacts to any nesting bird species. The qualified biologist shall survey all suitable nesting habitat within the project's area of disturbance plus a 300-foot buffer zone. Each time work ceases for a period of seven days or more during nesting season, a new nesting bird clearance survey shall be conducted.

- If no active bird nests are detected during the clearance survey, project activities may begin, and no additional avoidance and minimization measures shall be required.
- If an active bird nest is found, the species shall be identified, and a "no-disturbance" buffer shall be established around the active nest. The distance of the no-disturbance buffer around active bird nests would be a minimum of 100 feet for non-special status species, and 300 feet for special-status passerine species, and 500 feet for raptor species. These distances may be greater depending on the bird species and construction activity, as determined by the qualified biologist.
- The qualified biologist shall periodically monitor any active bird nests to determine if project-related activities occurring outside the "no-disturbance" buffer disturb the birds and if the buffer should be increased. No construction or ground disturbance shall occur within these buffers until the qualified biologist confirms that the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions.

4.5 Cultural Resources

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES** – Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☒	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Environmental Setting

The information in this section is based on the Cultural Resources Study, prepared by Michael Baker International, dated October 4, 2023, and included in Appendix D. The Study included a California Historical Resources Information System records search at the North Central Information Center (NCIC), Native American Heritage Commission (NAHC) Sacred Lands File search, local historical society consultation, literature, historical map, and aerial photo review, pedestrian survey, and archaeological buried site sensitivity analysis. These efforts were completed to determine whether the project could result in significant impacts to historical and archaeological resources, as defined by California Environmental Quality Act (CEQA) Section 15064.5(a).

North Central Information Center

NCIC staff conducted a cultural resources records search (File No. AMA-23-20) of the project area and a half-mile search radius on July 14, 2023. The NCIC at California State University, Sacramento, is part of the California Historical Resources Information System, an affiliate of the California Office of Historic Preservation (OHP). The NCIC is the official state repository of cultural resources records and reports for Amador County. This review was supplemented with a review of the online Built Environment Resources Directory. As part of the records search and background research, the following federal and state inventories were reviewed:

- National Register of Historic Places (National Park Service 2023)
- Built Environment Resources Directory for Amador County (OHP 2023a). The directory includes resources reviewed for eligibility for the National Register and the California Historical Landmarks programs through federal and state environmental compliance laws, and resources nominated under federal and state registration programs, including the National Register, California Register of Historical Resources, California Historical Landmarks, and California Points of Historical Interest
- California Historical Resources (OHP 2023b)

The NCIC records search identified two resources within the project area and nine resources within the half-mile buffer. These included historic commercial and residential buildings and water conveyance structures. The Built Environment Resources Directory was consulted only for the streets bounding the project area. A brief description of the resources within the project area is provided below and Table 2 in Appendix D summarizes the resources within the search area.

9506 Main Street Plymouth Post Office (03-000959): The modern commercial-style one-story concrete block building was constructed at 9506 Main Street for use as US Post Office for Plymouth in the mid-1950s. The building has a front gable roof clad in standing-seam aluminum and single-light wood frame windows. The

primary entry is via a wood door having one light over one panel in the primary north facade; a secondary door is located on the west elevation. Two small shed-roof additions have been made to the west elevation. Post office operations were moved to another location in 1985 and this building was converted to commercial use. The building was evaluated and determined ineligible for inclusion in the California Register and National Register (Marvin and Costello 2004; Campbell and Galvin 2009). It is not a historical resource as defined by CEQA Section 15064.5(a).

Plymouth Trading Post /Pool Brothers Garage/Gas Station (03-000960): The modern commercial-style simple one-story frame building with a rectangular mass was constructed at 18725 State Highway 49 in 1932 as a garage and gasoline station. The building has a nearly flat shed roof. Walls are clad in T-11 plywood siding with batts. Fenestration consists of single-light fixed aluminum-framed windows. The primary entry is via a modern glass and metal door in the primary east facade. The building was constructed on a concrete foundation. A flat-roofed canopy extends over the gasoline pumps. A shed-roof addition has been made to the west elevation. The front wall replaced the original garage door in 1980. Windows and restrooms on the west elevation were remodeled circa 1980. The building was evaluated and determined ineligible for inclusion in the California Register and National Register (Marvin and Costello 2004; Campbell and Galvin 2009). It is not a historical resource as defined by CEQA Section 15064.5(a).

Literature, Historical Map, and Aerial Photograph Review

The project area is depicted on the 1870 GLO plat as undeveloped land half a mile to the east of the town of "Pokerville," and south of Potter's House and a schoolhouse. The northwest corner of the project area (north corner of APN-010-062-002-501) was first developed during the mid-1870s (Marvin and Costello 2004). The 1890 Sanborn map depicts an L shape structure marked "Forest Hotel" at the corner of Main and Mineral Streets (now Mill Street). Forest Hotel burned down in 1877 and was rebuilt in 1878 and burnt again in 1911 (Marvin and Costello 2004). The property was sold following the 1911 fire and remained undeveloped into the mid-twentieth century. The location of the hotel appears vacant on the 1912 and 1930 Sanborn maps (GLO 1870; Sanborn Map Company 1890, 1912, and 1930). The property was leased to the US government, and a simple block building was constructed in the mid-1950s. The building served as the Plymouth post office between at least 1957 and 1985 and has since been converted into commercial use, currently occupied by the Fig Barn. The northwest portion of the project area where the existing Plymouth Trading Post is located (APN-010-062-001-000) was first developed in 1932 as the Pool Brothers garage and gasoline station; this property was leased by various oil companies over the years (Marvin and Costello 2004). The property was sold in 1952, in 1979, and in 1991. It has been operated as Plymouth Trading Post since then. Map review depicted no development within the southern half of the project area; this area has remained undeveloped vacant land until the present day (USGS 1889, 1897, 1902, 1941, 1941, 1944, 1957, 1962; Historicaerials.com 2023).

Sacred Lands File Search

Michael Baker International contacted the NAHC on July 13, 2023, and requested that the NAHC conduct a search of the Sacred Lands File for the project area. The NAHC responded on July 26, 2023, that Sacred Lands File search results were negative.

Local Historical Group Consultation

Michael Baker International prepared a letter and figures describing the project and sent a copy via email to the Amador County Historical Society on August 1, 2023. The letter requested information or concerns regarding historical resources within the project area. No response has been received.

Archaeological Survey

Michael Baker International conducted a pedestrian survey of the project area on August 3, 2023. The project area was surveyed in transects spaced no farther than 15 meters apart. The north half of the project area is developed. It encompasses the Plymouth Trading Post gas station, the Fig Barn building (formerly the Plymouth post office) a paved area, and a gravel parking lot. The southern half of the property is an

undeveloped vacant lot. Ground surface visibility in the undeveloped area was poor due to dense dry brush. Exposed soils observed within the undeveloped lot consist of silt loam. Disturbances noted within the southern undeveloped area of the project include modern refuse and several modern imported earth piles/push piles, disking, and vegetation clearance.

The entire project area has been subject to historical and modern development, including road construction and commercial development, construction, and maintenance of the fuel facilities such as underground storage and aboveground storage tanks and piping associated with the gas station. No prehistoric or historical archaeological deposits or features were identified during the survey. Sensitivity of the project area for buried prehistoric and historical archaeological resources is considered low.

Impact Analysis

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less Than Significant Impact. CEQA Guidelines Section 15064.5 defines "historic resources" as resources listed in the CRHR or determined to be eligible by the California Historical Resources Commission for listing in the CRHR. The criteria for eligibility are generally set by the Historic Sites Act of 1935, which established the NRHP, and which recognizes properties that are significant at the Federal, State, and local levels. To be eligible for listing in the NRHP, a district, site, building, structure, or object must possess integrity of location, design, setting, materials, workmanship, feeling, and association relative to American history, architecture, archaeology, engineering, or culture. In addition, unless the property possesses exceptional significance, it must be at least 50 years old to be eligible.

According to the result of the NCIC records search; literature, map, and aerial photo review; NAHC Sacred Lands File search; historical society outreach; and archaeological survey, no historical resources as defined by CEQA Section 15064.5(a) were identified within the project area. Nine historic resources were identified within a 0.5-mile radius of the project boundaries. Of the nine resources, two are eligible for the National Register listing, including the (previous) Plymouth Trading Post at 9470 Main Street and Ming's Store at 9130 Main Street. The site at 9470 Main Street is the No. 470 California Historical Landmark and is located approximately 330 feet west of the project site. The site located at 9130 Main Street is approximately one mile west of the project site. Activities related to construction and operation of the proposed project would not change the significance or otherwise result in impacts to these resources.

Additionally, because the site is currently undeveloped, there are no buildings or structures on-site that would qualify as a historical resource. Impacts would be less than significant in this regard, and no mitigation is required.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less Than Significant Impact With Mitigation Incorporated. Sensitivity of the project area for buried prehistoric and historical archaeological resources is considered low. The NCIC records search, literature, and map review identified two previously recorded historic-period buildings within the project area—Plymouth Trading Post gas station (03-000960) and the former Plymouth post office (03-000959). Both buildings were evaluated and recommended ineligible for the California Register. The existing gas station was first developed in the 1930s and has been subject to disturbance through time, including the construction of underground and aboveground storage tanks, fuel piping, and other site improvements. Previous research and Sanborn map review for the project area suggested the former Plymouth post office is the site where the Forest Hotel once existed. The Forest Hotel was built in the early 1870s and burnt down in 1911.

The potential to encounter subsurface deposits associated with the Forest Hotel is considered low, due to the alteration of the subsurface by the construction of the existing building, remodeling, and site improvements. Additionally, the current proposed project construction would not demolish or alter the

existing buildings adjacent to the project area. Therefore, the potential to encounter historic-period archaeological deposits is low.

The NCIC records search, NAHC Sacred Lands File search, and archaeological survey identified no prehistoric archaeological sites within or immediately adjacent to the project area. Northern Miwok Ione Triplet place named Yuleyumne was located to the southeast of the project area, with the Little Indian Creek and Dry Creek being the closest water sources. While this indicates potential for buried deposits, soils underlying the project area are composed of rocky silt loams. These soils are known to have a low potential for buried prehistoric deposits as they are composed of a shallow A horizon but do not contain a buried horizon and are abruptly underlain by the Mariposa Formation dating to 150 million years ago. The soils are derived from the erosion of shallow bedrock Mariposa formations. Additionally, the undeveloped southern portion of the project area has been subject to previous disturbance through clearing and landscaping and the potential for encountering prehistoric, buried deposits is low.

However, there is a potential for disturbing previously unknown archaeological resources during project construction in native undisturbed soils. Impacts may be avoided or reduced to a less than significant level with adherence to the City of Plymouth General Plan EIR Mitigation Monitoring and Reporting Program (MMRP) requirements (City of Plymouth 2009: page 67-68).

c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact With Mitigation Incorporated. (Refer to response to Threshold b). The potential to encounter subsurface deposits at the project site is considered low, due to the alteration of the subsurface by the construction of the existing building, remodeling, and site improvements. Additionally, soils underlying the project area are composed of rocky silt loams. These soils are known to have a low potential for buried prehistoric deposits as they are composed of a shallow A horizon but do not contain a buried horizon and are abruptly underlain by the Mariposa Formation dating to 150 million years ago. The soils are derived from the erosion of shallow bedrock Mariposa formations. The undeveloped southern portion of the project area has been subject to previous disturbance through clearing and landscaping and the potential for encountering prehistoric, buried deposits is low.

However, construction activities associated with project implementation would require grading and excavation of the site below the surface. Pursuant to California Health and Safety Code Section 70520.5, in the event of an accidental discovery or recognition of any human remains on the site, no further excavation or disturbance of the site shall be permitted until the coroner of the county is contacted and has conducted an investigation into the circumstances, manner, and cause of any death, and recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. The project would comply with existing law, and potential impacts to human remains would be less than significant with the implementation of Mitigation Measure CUL-3, pursuant to the City of Plymouth General Plan EIR Mitigation Monitoring and Reporting Program (MMRP) requirements (City of Plymouth 2009: page 67-68).

Regulatory Requirements

Local

City of Plymouth General Plan Environmental Impact Report

The City of Plymouth General Plan EIR Mitigation Monitoring and Reporting Program requires mitigation measures to avoid or lessen impacts related to discovery of cultural resources and/or human remains. These mitigation measures are reflected in Mitigation Measures CUL-1 through CUL-3.

Mitigation Measures

MM-CUL-1: In the event that undiscovered cultural resources are found during construction activities on the project site, for example, during road or utility excavations, the responsible Site Development Project Manager shall order the discontinuation of all activities within a minimum of ten (10) meters of the discovery and promptly contact a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for archaeology to evaluate the find. All construction work occurring within a 50-foot buffer of the find shall immediately stop and the qualified archaeologist must assess the significance of the find and determine whether or not additional study is warranted. Depending on the significance of the find under CEQA, the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work (e.g., preparation of an archaeological treatment plan, testing, or data recovery) may be warranted, as determined by the qualified archaeologist. If Native American resources are discovered or are suspected, the consulting tribe for the project shall be notified, as dictated by California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and CEQA Guidelines Section 15064.5(e).

MM-CUL-2: Project construction personnel shall receive pre-construction orientation regarding cultural resources, their recognition, avoidance, and treatment in the event of fortuitous discoveries of cultural resources. A note to this effect shall be included on all project related plans including, but not limited to grading plans, improvement plans and final map.

MM-CUL-3: In the event that human skeletal remains are discovered, however fragmentary they may be, or disturbed from their original context, the Amador County Coroner and the Native American Heritage Commission, Sacramento are to be notified immediately. All work within a minimum of ten (10) meters shall be discontinued until the representatives of these agencies have been consulted and a work plan has been identified.

4.6 Energy

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Impact Analysis

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact.

Construction

During construction, the project would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass. Table 4.6-1 provides a summary of the estimated energy consumption during the construction of the proposed project. Refer to Appendix B, Air Quality/Greenhouse Gas Emissions Modeling Results for the energy consumption modeling assumptions.

Table 4.6-1
Construction Energy Consumption

Energy Type	Project Annual Energy Consumption	Amador County Annual Energy Consumption	Percentage Increase
Construction On-Road	4,273 gallons	16,200,626 gallons	0.0264%
Construction Off-Road	14,701 gallons	366,092 gallons	4.0159%

Source: Refer to Appendix B for assumptions used in this analysis.

Notes:

[1] The project increases in off-road fuel consumption (construction) would be compared with the County's projected Mining and Construction Sector fuel consumption. The project's increase in on-road fuel consumption (construction) would be compared with the County's projected on-road fuel consumption in 2026.

Construction of the proposed project would require the use of construction equipment for the demolition, grading, building construction, paving, and architectural coating phases. As shown in Table 4.6-1, the project's off-road transportation fuel consumption (construction equipment) would consume approximately 14,702 gallons of fuel. This represents approximately 4.0159 percent of Amador's projected fuel consumption for the construction and mining sectors. The construction contractors would minimize idling of construction equipment during construction as required by State law. These required practices would limit wasteful and unnecessary electrical energy consumption. Furthermore, there are no unusual project characteristics that would necessitate the use of

construction equipment that is less energy efficient than at comparable construction sites in other parts of the State. Therefore, the proposed short-term construction activities would not result in inefficient, wasteful, or unnecessary fuel consumption. Impacts would be less than significant.

Electricity used during construction would vary during different phases of construction – construction equipment during grading would be gas powered, or diesel powered, and the later construction phases would require electricity-powered equipment, such as interior construction and architectural coatings. However, it should be noted that the electricity consumption from powered tools and lighting would be significantly less than the project's operational electricity consumption. The project's operation would include electricity demand from appliances, lighting, heating, ventilation, and air conditioning which would be significantly higher than electricity demands from construction. As such, it can be assumed that if the project's operational electricity demand is less than significant, electricity demands for construction would also be less than significant.

The surrounding area is already served by electricity and natural gas provided by Pacific Gas and Electric Company (PG&E). According to the California Energy Commission, the PG&E service area consumed approximately 77,886.99 million kilowatt-hours (kWh) and 4421.63 million therms in 2022 (the latest year in which energy consumption data was available).[14,15] However, it should be noted that PG&E provides services to approximately 16 million people within its 70,000 square mile service area. As such, the following evaluation would compare the project's energy and natural gas consumption to the County of Amador's energy consumption for a more conservative analysis. In 2022, the non-residential sector of the County of Amador consumed approximately 197.6 million kWh of electricity 5.29 million therms of natural gas. The proposed project would connect to existing utility lines adjacent to the project site.

Transportation

Transportation energy use depends on the type and number of trips, vehicle miles traveled, fuel efficiency of vehicles, and travel mode. Transportation energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel and/or gasoline. Specifically, construction includes the vehicles of construction workers traveling to and from the project site and haul trucks for the export of materials from site clearing. The use of energy resources by these vehicles would fluctuate according to the phase of construction and would be temporary. Construction equipment during grading would be gas-powered or diesel-powered, and the later construction phases would require electricity-powered equipment. Construction of the proposed project would require a total of approximately 4,320 one-way worker trips, 522 one-way vendor trips, and 528 hauling trips. As indicated in Table 4.6-1, on-road transportation fuel consumption (workers, hauling, and vendor trips) during construction would consume approximately 4,273 gallons of fuel. This would represent approximately 0.0264 percent of the County's projected fuel consumption. Impacts related to transportation energy use during construction would be temporary and would not require expanded energy supplies or the construction of new infrastructure. Impacts would be less than significant.

Operation

Typically, it is infeasible to calculate the baseline consumption of various energy sources as data would need to be gathered regarding the site's current energy consumption through utility bills and throughput. Additionally, data regarding the site's other energy consumption options would be needed. At this time, that data is not available and would not affect the project's net energy consumption. As such, all energy consumption calculations are based on the project's consumption and are not "netted" out to provide a more conservative analysis. Operational use of energy would include heating, cooling, and ventilation of buildings; water heating; operation of electrical systems, security and control center functions, use of on-site equipment and appliances, and indoor, outdoor, and parking lot lighting. Additionally, the proposed project would result in

[14] California Energy Commission. 2025. "Electricity Consumption by Entity." Accessed 28 January 2025. https://ecdms.energy.ca.gov/elecbyutil.aspx

[15] California Energy Commission. 2025. "Gas Consumption by Entity." Accessed 28 January 2025. https://ecdms.energy.ca.gov/gasbyutil.aspx

commercial uses and would not result in an excessive consumption of energy compared to other similar uses. Table 4.6-1 provides a summary of the estimated energy consumption during the operation of the proposed project. Refer to Appendix B, Air Quality/Greenhouse Gas Emissions Modeling Results for the energy consumption modeling assumptions.

Table 4.6-2
Operational Energy Consumption

Energy Type	Project Annual Energy Consumption	Amador County Annual Energy Consumption	Percentage Increase
Electricity	421,941 kilowatts-hours	349,097,079 killowatts-hours	0.1209%
Natural Gas	0 therms	7,466,029 therms	0.0000%
Operational Automotive Fuel	375,006 gallons	16,200,626 gallons	2.3148%

Source: Refer to Appendix B for assumptions used in this analysis.

Notes:

[1] The project would not consume natural gas. The County's annual energy consumption is based on total consumption in 2022, the latest year with available data

[2] The project's increase in on-road fuel consumption (construction) would be compared with the County's projected on-road fuel consumption in 2026.

Electricity

As shown in Table 4.6-2, the project is expected to use approximately 421,941 kWh per year (kWh/year) to serve operational demands. In 2022, the County of Amador consumed approximately 349.1 million kWh of electricity.[16] Therefore, the increase in electricity demand of approximately 0.12 percent from the proposed project is insignificant compared to the County's 2022 non-residential sector demand. The increased demand is expected to be adequately served by the existing PG&E electrical facilities. Projected electrical demand would not significantly impact PG&E's level of service.

Construction of the proposed project would be required to comply with the applicable requirements of the California Building Code, including the Energy Efficiency Standards and the Green Building Standards, thereby improving the energy efficiency of the buildings and the project site. Operational energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary. Impacts would be less than significant.

Natural Gas

The project is not expected to use natural gas. There is no anticipated increase in natural gas demand as a result of the proposed project and impacts would be less than significant in this regard.

Renewable Energy

Pursuant to the State's Energy Plan and compliance with Title 24 CCR energy efficiency standards, the Applicant is required to comply with the California Green Building Standard Code requirements for energy efficient buildings and appliances as well as utility energy efficiency programs implemented by PG&E. Regarding the State's Renewable Energy Portfolio Standards, the proposed project would be required to meet or exceed the energy standards established in the California Green Building Standards Code, Title 24, Part 11 (CALGreen). CALGreen Standards require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials. Additionally, the development of the proposed project would not interfere with the achievement of the 60 percent Renewable Portfolio Standard set forth in SB 100 for 2030 or the 100

[16] California Energy Commission. 2023. "Electricity Consumption by County." Accessed 26 October 2023. https://ecdms.energy.ca.gov/elecbycounty.aspx.

percent standard for 2045. These goals apply to PG&E and other electricity retailers. As electricity retailers reach these goals, emissions from end user electricity use would decrease from current emission estimates.

The proposed project includes the installation of solar panels on the convenience store, gas station canopy, and car wash, in accordance with the 2022 California Building Code. The proposed project would utilize the renewable energy generated by the installed solar panels, reducing the project's overall demand from the PG&E energy grid. Therefore, impacts would be less than significant in this regard.

Fuel Consumption

Transportation energy use depends on the type and number of trips, vehicle miles traveled (VMT), fuel efficiency of vehicles, and travel mode. Transportation energy used during operation of the project would come from delivery vehicles, maintenance vehicles, and the general public, including refueling vehicles and vehicles using the car wash, that would primarily use diesel fuel and/or gasoline.

The proposed project would generate 1,871 trips per day. The trip generation of 1,871 trips was based on the Institute of Transportation Engineers. As shown in Table 4.6-2, the project's trip generation of 1,871 trips would consume approximately 375,006 gallons per year. This would represent approximately 2.3 percent of the County's projected on-road fuel consumption. It should be noted that this evaluation does not take into account the existing trip generation for a more conservative analysis. Trip generation generated by the proposed project would be consistent with other similar commercial uses of similar scale and configuration. Therefore, the proposed project would not propose uses or operations that would result in excessive and wasteful vehicle trips or vehicle energy consumption.

Conclusion

Energy consumption during both the construction and operation phases of the proposed project would not be considered inefficient, wasteful, or otherwise unnecessary. Impacts to energy resources would be less than significant in this regard, and no mitigation is required.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The Amador County Energy Action Plan was designed to encourage residents and business owners countywide to adopt and implement energy efficiency measures to reduce the energy demand of the County. The Plan provides voluntary options and incentives for increasing energy efficiency. Some of the goals of the Plan include increasing the energy performance of new construction as well as renewable energy use.[17] The proposed project would be subject to the most recent version of the California Energy Code, which sets standards that improve energy efficiency of newly constructed buildings. The project would also be required to comply with CALGreen standards. In addition, the project would include the installation of solar panels on top of the convenience store, gas station, and car wash. Because the project would comply with the latest energy efficiency standards and would incorporate renewable energy, the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. The project does not include any design features that would conflict with the required CALGreen and California Energy Code standards. Impacts would be less than significant, and no mitigation is required.

Regulatory Requirements

Energy efficiency is a priority for both the State of California and the City of Plymouth. The following are regulatory targets and requirements that are applicable to this project.

[17] Amador County, California. 2015. *Amador County Energy Action Plan*. 26 May 2015. Accessed 27 October 2023. https://www.amadorgov.org/home/showpublisheddocument/23721/635993417890200000.

State

Senate Bill 100

Senate Bill (SB) 100 (Chapter 312, Statutes of 2018) requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt-hours (kWh) of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; 60 percent by December 31, 2030; and 100 percent by December 31, 2045. SB 100 requires the California Public Utilities Commission (CPUC), California Energy Commission (CEC), State board, and all other State agencies to incorporate this policy into all relevant planning. In addition, SB 100 requires the CPUC, CEC, and State board to utilize programs authorized under existing statutes to achieve such renewable energy goals.

California Building Energy Efficiency Standards (Title 24)

The *2022 Building Energy Efficiency Standards for Residential and Nonresidential Buildings* (California Code of Regulations, Title 24, Part 6), commonly referred to as "Title 24", became effective on January 1, 2023. In general, Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The standards require installation of energy efficient windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses. The 2022 Title 24 standards encourage efficient electric heat pumps, establish electric-ready requirements for new homes, expand solar photovoltaic and battery storage standards, strengthen ventilation standards, and more.

California Green Building Standards

The California Green Building Standards (CALGreen) is the first-in-the-nation mandatory green buildings standards code. The California Building Standards Commission developed the green building standards to meet the goals of California's landmark initiative Assembly Bill (AB) 32, which established a comprehensive program of cost-effective reductions of greenhouse gases (GHGs) to 1990 levels by 2020. CALGreen was developed to (1) reduce GHGs from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the environmental directives of the administration. The 2022 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as CALGreen, went into effect on January 1, 2023. CALGreen requires that new buildings employ water efficiency and conservation, increase building system efficiencies (e.g., lighting, heating/ventilation and air conditioning, and plumbing fixtures), divert construction waste from landfills, and incorporate electric vehicle charging infrastructure.

California Public Utilities Commission Energy Efficiency Strategic Plan

The CPUC prepared an *Energy Efficiency Strategic Plan* (Strategic Plan) in September 2008 with the goal of promoting energy efficiency and GHG reductions. In January 2011, a lighting chapter was adopted and added to the Strategic Plan. The Strategic Plan is California's single roadmap to achieving maximum energy savings in the State from 2009 to 2020 and beyond. The Strategic Plan contains the practical strategies and actions to attain significant Statewide energy savings. The plan includes the following four strategies:

1. All new residential construction in California will be zero net energy by 2020;
2. All new commercial construction in California will be zero net energy by 2030;
3. HVAC will be transformed to ensure that its performance is optimal for California's climate; and
4. All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

California Energy Commission Integrated Energy Policy Report

In 2002, the California State legislature adopted Senate Bill (SB) 1389, which requires the CEC to develop an Integrated Energy Policy Report (IEPR) every two years. SB 1389 requires the CEC to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution,

demand, and prices, and use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the State's economy, and protect public health and safety.

The 2020 IEPR Update provides the results of the CEC's assessments of a variety of energy issues facing California, many of which will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining reliability and controlling costs. The Update identifies actions the State and others can take that would strengthen energy resiliency, reduce GHG emissions that cause climate change, improve air quality, and contribute to a more equitable future.

Local

City of Plymouth Energy Action Plan

The City of Plymouth adopted the *Plymouth Energy Action Plan* in January of 2015. The Plan was developed in partnership with the Sierra Business Council and Pacific Gas and Electric Company. The intent of the Plan is to:

- Inform residents and business owners how they can achieve greater energy efficiency in their homes and commercial buildings.
- Provide a roadmap for reducing the City's energy usage.
- Provide the City with information to create inspiration and encouragement for residents and businesses to increase energy efficiency.

Allow the City to explore and implement energy efficiency programs that make the community more self-sufficient and economically resilient in the future.

Mitigation Measures

Project implementation would not result in significant impacts related to energy; therefore, no mitigation measures are required.

4.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Impact Analysis

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The project site is not located in an Alquist-Priolo Earthquake Fault Zone, and the nearest Alquist-Priolo Earthquake Fault Zone, the West Tahoe Fault, is located approximately 52 miles northeast.[18] Faults that last slipped over 1.6 million years ago are considered Pre-Quaternary faults, faults that moved at some point in the Quaternary period (1.6 million years ago, or more recently) are called Quaternary faults, and faults that have slipped in the last 700,000 years are called Late Quaternary (LTQT) faults.

There are no active faults near the project site, however, nearby faults are part of the Foothills Fault System, which is considered an active zone. There are four pre-quaternary faults surrounding the project site, the closest of which is approximately 1,600 feet east. The nearest Late Quaternary Fault is the Ione Fault, which is located approximately 10 miles southwest. Another LTQT fault, the Poorman Gulch fault, is located approximately 12 miles south/southeast. There are three Quaternary faults approximately 10 miles south of the project site, including the Waters Peak, Youngs Creek, and Haupt Creek faults. The Rescue fault, an LTQT fault, is located approximately 17 miles northwest.

Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. Ground rupture is most likely along active faults, and typically occurs during earthquakes of magnitude five or higher. Ground rupture only affects the area immediately adjacent to a fault. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The project site is outside of the Alquist-Priolo Earthquake Fault Zoning Map area and no known active faults are located nearby. Therefore, the potential for surface rupture at the project site is low and the project would not result in a substantial adverse effect, including the risk of loss, injury, or death, due to an Alquist-Priolo Earthquake Fault. No impact would occur, and no mitigation is required.

ii) Strong seismic ground shaking?

Less Than Significant Impact with Mitigation Incorporated. Plymouth is not considered a seismically active region; however, the project site is located in an area that has experienced ground shaking originating from faults in the Foothills Fault System and the San Andreas Fault System. There are no known active or potentially active faults on the project site, however, the Foothills Fault System is considered active, and nine earthquakes have occurred in the area since 1931. The probability of high magnitude earthquakes is low-moderate for the project vicinity. Nevertheless, earthquakes generated on either fault system can be expected to cause ground shaking in the project area.

In order to reduce the effects of ground shaking, the project is expected to be designed in accordance with all applicable current codes and standards utilizing the appropriate seismic design parameters to reduce seismic risk as defined by California Geological Survey (CGS) Chapter 2 of Special Publication 117a and the 2019 California Building Code (CBC) (RR GEO-1). Additionally, a geotechnical investigation of the project site, to be completed prior to construction, is required to determine appropriate seismic design that would reduce potential project impacts related to seismic ground shaking to a less than significant level. Compliance with the City of Plymouth grading and building requirements, the most current CBC, the CGS, and the recommendations that would be provided in the geotechnical investigation would mitigate site hazards. Implementation of Mitigation Measure GEO-1 requires the applicant to complete a geotechnical investigation and comply with the

[18] California Geological Survey. *Earthquake Zones of Required Investigation*. 31 May 2023. https://maps.conservation.ca.gov/cgs/EQZApp/app/.

recommendations of the resulting report, which would stipulate appropriate seismic design. Potential project impacts related to seismic ground shaking would be reduced to a less than significant level.

iii) Seismic-related ground failure, including liquefaction?

No Impact. Liquefaction and seismically induced settlement or ground failure is generally related to strong seismic shaking events where the groundwater occurs at shallow depth (generally within 50 feet of the ground surface) or where lands are underlain by loose, cohesion-less deposits. Liquefaction typically results in the loss of shear strength of a soil, which occurs due to the increase of pore water pressure caused by the rearrangement of soil particles induced by shaking or vibration. During liquefaction, soil strata behave similarly to a heavy liquid.

According to the California Geological Survey Seismic Hazards Program, the project site is located outside of the mapped potential liquefaction areas by the State of California.[19] Therefore, seismic-related ground failure, including liquefaction, is not anticipated at the project site. No impact would occur in this regard.

iv) Landslides?

No Impact. The risk of landslides is typically associated with hillsides and steep slopes. The project site is located in a relatively flat, urbanized part of the City, and the surrounding area does not have steep slopes or hillsides that pose a risk of landslides on the project site. According to the California Department of Conservation, the project site has not been evaluated for seismic landslide hazards. However, the Amador County Local Hazard Mitigation Plan identifies the project site as being in an area with low landslide incidence and susceptibility, which indicates that less than 1.5% of the area is involved in land sliding.[20] Therefore, development of the proposed project would not expose people or structures to landslide hazards. No impact would occur in this regard.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The project site is currently vacant and undeveloped. The proposed project would require ground-disturbing activities such as grading, excavation, and other earthmoving activities prior to and during construction. These activities could have the potential to erode soils or result in the loss of topsoil if measures are not taken to prevent erosion and runoff during site construction.

Construction

Grading, earthwork, and landscape/hardscape installation activities associated with project construction could expose soils to potential short-term erosion by wind and water. The project site is relatively flat, with the exception of a small drop in elevation between the northern and southern sections of the site. Thus, significant erosion by water is unlikely. With construction improvements, including removal of vegetation, temporary soil erosion may occur due to rainfall and wind if unprotected soils are exposed during construction. Construction activities associated with the project would be required to implement construction best management practices (BMPs) to reduce urban runoff.

As the project site has over one acre of land area, it would be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for construction activities. The Permit requires preparation of a Stormwater Pollution Prevention Plan (SWPPP) and implementation of erosion control, sediment control, tracking, waste management, and construction site maintenance BMPs to reduce the potential for soil and wind erosion during

[19] California Geological Survey. 2022. *CGS Seismic Hazards Program: Liquefaction Zones*. State of California. 11 October 2017. 31 May 2023. https://gis.data.ca.gov/datasets/cadoc::cgs-seismic-hazards-program-liquefaction-zones-1/explore?location=38.553953%2C-120.914823%2C10.70.

[20] Amador County. 2020. *Local Hazard Mitigation Plan*. Amador County. May 2020. 01 June 2023. https://amadorsheriff.org/images/Amador_County_LHMP_Update_Complete1.pdf.

construction activities. Compliance with the NPDES General Construction Permit would minimize the potential of erosion and loss of topsoil at the project site during construction activities to a less than significant level.

Operations

The operation of the proposed project would not result in substantial erosion or loss of topsoil as the majority of the project site would be developed with a commercial building and car wash, and the remainder of the site would be paved. Following implementation of the proposed project, conditions on-site would not result in exposed soils. Project operations would not result in substantial soil erosion or loss of topsoil and no impact would occur in this regard.

With implementation of referenced standards and compliance with NPDES requirements, construction-related soil erosion would be less than significant. The project, once operational, would not result in substantial soil erosion or the loss of topsoil. Therefore, no mitigation is required.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact With Mitigation Incorporated. The property may be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project. The subject site is relatively flat and there are no documented landslides within or adjacent to the project area. However, the project could be located on unstable or expansive soils that could result in lateral spreading, subsistence, or collapse.

As discussed in previous subsections above, the project site is not located in a potential liquefaction area. Therefore, it is anticipated that the project site would not be susceptible to liquefaction-induced lateral spreading.

Subsidence occurs when a large portion of land is displaced vertically, usually due to withdrawal of groundwater, oil, or natural gas. Soils that are particularly subject to subsidence include those with high silt or clay content. There is no large-scale extraction of groundwater, gas, oil, or geothermal energy occurring or planned at the site or in the general site vicinity. However, according to the Phase I Environmental Site Assessment, prepared by Light, Air and Space Construction, dated February 5, 2022, silt-clay soils were encountered at the project site.[21] A geotechnical investigation is required to determine the degree to which the site may be susceptible to subsidence; refer to Mitigation Measures GEO-1a and GEO-1b.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less Than Significant Impact With Mitigation Incorporated. The subject site may be located on expansive soil creating substantial risks to life or property. Expansive soils are predominantly comprised of clays, which expand in volume when water is absorbed and shrink when the soil dries. Expansion is measured by shrink-well potential, which is the volume change in soil with a gain in moisture. A geotechnical investigation is necessary to classify the expansiveness of on-site soils and to recommend appropriate design and grading measures to mitigate potential hazards due to expansive soils; refer to Mitigation Measures GEO-1a and GEO-1b. As discussed above, compliance with CBC standards would ensure recommended design and construction methods are implemented to reduce potential impacts due to expansive soils. The project would be required to establish a post-tensioned foundation system to be utilized for support of the proposed project structures; refer to CBC Section 1808.6.2, *Slab-On-Ground Foundations*. Remedial measures for expansive soils include over-excavation of expansive clays beneath proposed foundations and replacement with non-expansive sand, or construction of post-tension slabs-on-ground. Additional soil testing for potentially expansive soils would be completed during grading, as applicable, to prevent highly expansive soils from being placed directly beneath concrete foundations, if possible.

[21] Light, Air and Space Construction. 2022. *Phase I Environmental Site Assessment for 9506 Main Street and 18725 Highway 49, Plymouth, CA 95669.* San Jose: Light, Air and Space Construction. 05 February 2022. 05 June 2023.

Compliance with applicable laws, standards, and guidelines, including the CBC, would ensure that project implementation does not expose people or structures to potential substantial adverse effects involving expansive soils. Impacts would be less than significant in this regard.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. There is no evidence of septic tanks, wastewater, or alternative wastewater disposal systems at the project site. The use of septic tanks or alternative wastewater disposal systems is not proposed by the project. The proposed project would connect to the existing City sanitary sewer system nearby for wastewater disposal. Therefore, no impact would result, and no mitigation is required.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact With Mitigation Incorporated. The project site is located in the central Sierra Nevada Geomorphic Province, which extends from the Cascade Range in the north to the Kern Plateau in the south. The province includes the Sierra Nevada Mountain Range and the Sierra Nevada foothills. According to geologic surveys conducted by the United States Geological Survey (1975), the project site is within an area of the Sierra Nevada Range underlain by volcanic sedimentary rocks and marine stratified rocks of Jurassic Age.[22] Ground-disturbing activities in fossil-bearing soils and rock formations have the potential to damage or destroy paleontological resources that may be present below the ground surface. Therefore, construction-related and earth-disturbing actions have the potential to damage or destroy fossils in these rock units resulting in a significant impact.

While paleontological resources are not anticipated to be discovered during earthwork activities, if unknown paleontological resources are encountered, implementation of Mitigation Measure GEO-2 would reduce this potential impact to a less than significant level. Therefore, impacts would be less than significant in this regard, with mitigation.

Regulatory Requirements

Local

City of Plymouth Municipal Code

The project would be required to comply with the 2022 California Building Code (or most recent version), which is adopted by reference in Chapter 15.05, Building Code, of the City of Plymouth Municipal Code.

Mitigation Measures

MM-GEO-1a: A geotechnical investigation shall be required by the Project Applicant to determine subsurface conditions and any potential threats to building stability and shall include a report that provides recommendations for grading, construction, and design operations appropriate for seismic conditions. All grading operations and construction shall be conducted in conformance with the recommendations included in the geotechnical report. Design, grading, and construction shall be performed in accordance with the requirements of the City of Plymouth Building Code and the California Building Code applicable at the time of grading, and appropriate local grading regulations, subject to review and approval by the City of Plymouth Building Official, or designee, prior to commencement of grading activities.

[22] Duffield, Wendell A., and Robert V. Sharp. 1975. *Geology of the Sierra Foothills Melange and Adjacent Areas, Amador County, California.* Washington D.C.: United States Government Printing Office. 05 June 2023. https://pubs.usgs.gov/pp/0827/report.pdf.

MM-GEO-1b: A qualified Geotechnical Engineer shall be retained to perform the following tasks prior to and during construction:

- Review final grading, foundation, and drainage plans to verify that the recommendations contained in the geotechnical investigation have been properly interpreted and are incorporated into the project specifications.
- Observe and advise during all grading activities, including site preparation, foundation, and placement of fill, to confirm that suitable fill materials are placed upon component material and to allow design changes if subsurface conditions differ from those anticipated prior to the start of grading and construction.
- Observe the installation of proposed drainage devices.
- Test all fill placed for engineering purposes to confirm that suitable fill materials are used and properly compacted.

MM-GEO-2: In the event paleontological resources are encountered during construction, ground-disturbing activity shall cease. It is recommended that a Qualified Paleontologist be retained by the applicant to examine the materials encountered, assess the nature and extent of the find, and recommend a course of action to further investigate and protect or recover and salvage those resources that have been encountered. Criteria for discarding specific fossil specimens shall be made explicit. If a Qualified Paleontologist determines that impacts to a sample containing significant paleontological resources cannot be avoided by project planning, then recovery may be applied. Actions may include recovering a sample of the fossiliferous material prior to construction; monitoring work and halting construction if an important fossil needs to be recovered; and/or cleaning, identifying, and cataloging specimens for curation and research purposes. The cost associated with recovery, salvage, and treatment shall be borne by the applicant. All recovered and salvaged resources shall be prepared to the point of identification and permanent preservation by the Qualified Paleontologist. Resources shall be identified and curated into an established accredited professional repository. The Qualified Paleontologist shall have a repository agreement in hand prior to initiating recovery of the resource.

4.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Environmental Setting

Global Climate Change

California is a substantial contributor of global greenhouse gases (GHGs), emitting over 369.2 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) per year.[23] Methane (CH_4) is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO_2, CH_4, and nitrous oxide (N_2O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO_2 concentrations ranged from 180 to 300 parts per million (ppm). For the period from approximately 1750 to the present, global CO_2 concentrations increased from a pre-industrialization period concentration of 280 ppm to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range. As of September 2023, the highest monthly average concentration of CO_2 in the atmosphere was recorded at 424 ppm.[24]

Impact Analysis

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. Both the City and the Amador Air District (AAD) have not adopted a numerical significance threshold for assessing impacts related to GHG emissions. However, due to its proximity to Sacramento County, the City of Plymouth is applying the Sacramento Metropolitan Air Quality Management District's (SMAQMD) recommended thresholds of significance to assess the project's greenhouse gas impacts.

[23] California Air Resources Board, California Greenhouse Gas Emissions for 2000 to 2020, https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf, accessed September 21, 2023.

[24] Scripps Institution of Oceanography, *Carbon Dioxide Concentration at Mauna Loa Observatory*, https://scripps.ucsd.edu/programs/keelingcurve/, accessed September 21, 2023.

SMAQMD establishes a threshold of 1,100 $MTCO_2e$ per year for construction emissions and no numerical thresholds for operation emissions.

Project-related GHG emissions include emissions from direct and indirect sources. Direct project-related GHG emissions include emissions from construction activities, area sources, mobile sources, and refrigerants, while indirect sources include emissions from energy consumption, water demand, and solid waste generation. The California Emissions Estimator Model version 2022.1 (CalEEMod) was used to calculate project-related GHG emissions. Table 4.8-1, Estimated Greenhouse Gas Emissions, presents the estimated CO_2, N_2O, and CH_4 emissions associated with the proposed project; refer to Appendix B, Air Quality/Greenhouse Gas Emissions Modeling Results for the CalEEMod outputs.

Table 4.8-1
Estimated Greenhouse Gas Emissions

Source	CO_2	CH_4	N_2O	Refrigerants	CO_2e
	Metric Tons/year[1]				
Construction Emissions					
Construction	97.6	<0.01	<0.01	0.03	178.70
Total Construction Emissions[2]	**178.70 $MTCO_2e$**				
SMAQMD Threshold	1,100 $MTCO_2e$/year				
Exceed Threshold?	**No**				
Operational – Direct Emissions					
Construction (amortized over 30 years)	5.91	<0.01	<0.01	<0.01	5.96
Mobile Source	2,845.00	0.17	0.19	5.58	2,911.00
Area Source	0.13	<0.01	<0.01	0.00	0.13
Refrigerants	0.00	0.00	0.00	314.00	314.00
Total Direct Emissions[2]	*2,851.04*	*0.17*	*0.19*	*319.58*	*3,231.09*
Operational – Indirect Emissions					
Energy	39.00	0.01	<0.01	0.00	39.40
Water Demand	0.17	0.01	<0.01	0.00	0.42
Solid Waste	0.85	0.08	0.00	0.00	2.96
Total Indirect Emissions[2]	*40.02*	*0.10*	*<0.01*	*0.00*	*42.78*
Total Operational and Amortized Construction Project-Related Emissions[2]	**3,273.87 $MTCO_2e$/year**				

Notes:
Refer to Appendix B for detailed model input/output data.
[1] Emissions calculated using California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model.
[2] Totals may be slightly off due to rounding.

Direct Project-Related Sources of Greenhouse Gases

Construction Emissions

As shown in Table 4.8-1, the project would emit a total of 178.70 $MTCO_2e$ during construction, which would not exceed the SMAQMD-recommended threshold of 1,100 $MTCO_2e$, and the impact would be less than significant.

Area Source

Area source emissions were calculated using CalEEMod and project-specific land use data. Project-related area sources include exhaust emissions from landscape maintenance equipment, such as lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the site as the project would provide 13,710 square feet of landscaping. The project would directly result in 0.13 $MTCO_2e$ per year from area source emissions; refer to Table 4.8-1.

Mobile Source

CalEEMod relies upon trip generation rates from the *Plymouth ARCO Gas Station Project Transportation Study* (Transportation Study) prepared by MAT Engineering, Inc. (dated August 25, 2023), and project specific land use data to calculate mobile source emissions. Based upon the Transportation Study, the proposed project would generate 1,871 average daily trips. The project would result in approximately 2,911.00 $MTCO_2e$ per year of mobile source generated GHG emissions; refer to Table 4.8-1.

Refrigerants

Refrigerants are substances used in equipment for air conditioning and refrigeration. Most of the refrigerants used today are HFCs or blends thereof, which can have high GWP values. All equipment that uses refrigerants has a charge size (i.e., quantity of refrigerant the equipment contains), and an operational refrigerant leak rate, and each refrigerant has a GWP that is specific to that refrigerant. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime, and then derives average annual emissions from the lifetime estimate. The proposed project would result in 319.58 $MTCO_2e$ per year of GHG emissions from refrigerants; refer to Table 4.8-1.

Indirect Project-Related Sources of Greenhouse Gases

Energy Consumption

Energy consumption emissions were calculated using CalEEMod and project-specific land use data. Pacific Gas and Electric (PG&E) would provide electricity to the project site. The project would not consume natural gas on-site. The project would install high-efficiency lighting, energy efficiency appliances and solar ready roof, and generate renewable on-site. However, as a conservative analysis, the reduction from efficiency features and renewable energy are not accounted in the modeling. The project would indirectly result in 39.40 $MTCO_2e$ per year due to energy consumption; refer to Table 4.8-1.

Solid Waste

Solid waste associated with operations of the proposed project would result in 2.96 $MTCO_2e$ per year; refer to Table 4.8-1.

Water Demand

The project operations would result in a demand of approximately 0.4 million gallons of water per year. The project would install low-flow fixtures, use water-efficiency irrigation, and plant draught tolerant landscape. Emissions from indirect energy impacts due to water supply would result in 0.42 $MTCO_2e$ per year; refer to Table 4.8-1.

Total Project-Related Sources of Greenhouse Gases

As shown in Table 4.8-1, the total amount of project-related GHG emissions from direct and indirect sources combined would total 3,273.87 $MTCO_2e$ per year. Although the project would exceed the SMAQMD's screening threshold, it would implement all three applicable BMPs or equivalent on-site or off-site mitigation. As shown in Table 4.8-2, Consistency with Best Management Practices, the project would implement the three BMPs. Additionally, as shown in Table 4.8-3, the proposed project would be consistent with CARB's 2022 Scoping Plan

and thus be consistent with local and State policies. Impacts related to greenhouse gas emissions would be less than significant, and no mitigation is required.

b) Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact.

Consistency with Applicable GHG Plans, Policies, or Regulations

Both the City and AAD do not establish thresholds for GHG emissions. Due to its proximity to the SMAQMD, the project's potential emissions impacts are analyzed using SMAQMD thresholds to ensure consistency with the Climate Change Scoping Plan by either implementing applicable Best Management Practices (BMP), or equivalent on-site or off-site mitigation. As such, the GHG plan consistency for the project is based on the project's consistency with the SMAQMD BMPs and the CARB 2022 Scoping Plan. The 2022 Scoping Plan describes the approach the State will take to achieve carbon neutrality by 2045.

Consistency with Best Management Practices

As shown in Table 4.8-1, the project would emit 3,273.87 $MTCO_2e$ per year which is more than 1,100 $MTCO_2$ per year. As such, the project would be required to implement all three applicable BMPs or equivalent on-site or off-site mitigation. As shown in Table 4.8-2, Consistency with Best Management Practices, the project would implement the three BMPs.

Table 4.8-2
Consistency with the Best Management Practices

Best Management Practices	Project Consistency Analysis
All projects must implement tier 1 BMPs (BMP1&2)	
BMP 1 – projects shall be designed and constructed without natural gas infrastructure.	**Implemented.** The project would not consume natural gas on-site. As such, the project would meet this requirement.
BMP 2 – projects shall meet the current CalGreen Tier 2 standards, except all electric vehicle capable spaces shall instead be electric vehicle ready.	**Implemented.** The project would install high-efficiency lighting and energy efficient appliances, generate renewable energy on-site, and install solar ready roof. Furthermore, the project would provide bicycle parking, electric vehicle charging station, and vanpool/carpool parking. Additionally, the project would install low-flow water fixtures, water-efficiency irrigation, and draught tolerant landscaping. The project would also recycle and compost solid waste. As such, the project would meet the current CalGreen Tier 2 standards or equivalent.
Project that exceeds 1,100 Metric Tons per year after implementing tier 1 BMPs must implement tier 2 BMP (BMP 3)	
BMP 3 – retail projects shall achieve a no net increase in total vehicle traveled to show consistency with SB 743.	**Implemented**. The proposed project would construct a new gas station with a convenience store and carwash to replace the existing trading post with two old gas pumps in the City of Plymouth. The proposed gas station would have more pumps and serve more variety of customers at the same time. According to the Transportation Study, the gas station is considered as a project that serves the local community and has the potential to reduce VMT. The newly proposed car wash would be the first automatic car wash in the City, which would reduce the VMT of residents driving further to wash cars. As such, the project would result in a no net increase in total VMT.

Source: Sacramento Metropolitan Air Quality Management District, SMAQMD Thresholds of Significance Table, April 2020.

Consistency with the 2022 CARB Scoping Plan

The 2022 Scoping Plan identifies reduction measures necessary to achieve the goal of carbon neutrality by 2045 or earlier. Actions that reduce GHG emissions are identified for each AB 32 inventory sector. Provided in Table 4.8-3, Consistency with the 2022 Scoping Plan: AB 32 GHG Inventory Sectors, is an evaluation of applicable reduction actions/strategies by emissions source category to determine how the project would be consistent with or exceed reduction actions/strategies outlined in the 2022 Scoping Plan.

Table 4.8-3
Consistency with the 2022 Scoping Plan: AB 32 Inventory Sectors

Actions and Strategies	Project Consistency Analysis
Smart Growth / Vehicles Miles Traveled (VMT)	
Reduce VMT per capita to 25% below 2019 levels by 2030, and 30% below 2019 levels by 2045	**Consistent.** The project would propose a gas station. With the newly proposed gas station, the residents would drive less distance to fill the tank. Furthermore, according to the Transportation Study, the gas station is considered as a project that serves the local community and has the potential to reduce VMT. Since the project is a gas station with convenience store and car wash use, it is screened out for VMT analysis and is therefore found to have a less than significant VMT impact under CEQA. In addition, the project would provide vanpool/carpool parking and bicycle parking, which would promote alternative modes of transportation. As such, the project would be consistent with this action.
New Residential and Commercial Buildings	
All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed statewide by 2030	**Consistent.** The project would not consume any natural gas on-site. Furthermore, the project would install high efficiency lighting and appliances. As such, the project would be consistent with this action.
Construction Equipment	
Achieve 25% of energy demand electrified by 2030 and 75% electrified by 2045	**Consistent.** The City of Plymouth has not adopted an ordinance or program requiring electricity-powered construction equipment. However, if adopted, the project would comply with the applicable goals or policies requiring the use of electric construction equipment in the future. As such, the project would be consistent with this action.
Non-combustion Methane Emissions	
Divert 75% of organic waste from landfills by 2025	**Consistent**. SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The law establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025. The project would comply with local and regional regulations and recycle or compost 75 percent of waste by 2025 pursuant to SB 1383. As such, the project would be consistent with this action.

Source: California Air Resources Board, 2022 Scoping Plan, November 16, 2022.

Conclusion

In summary, the project's characteristics render it consistent with Statewide, regional, and local climate change mandates, plans, policies, and recommendations. More specifically, the GHG plan consistency analysis provided above demonstrates that the project complies with the regulations and GHG reduction goals, policies, actions, and strategies outlined in the 2022 Scoping Plan by implementing BMPs. Consistency with the 2022 Scoping Plan would reduce the impact of the project's incremental contribution of GHG emissions. Accordingly, the project would not conflict with any applicable plan, policy, regulation, or recommendation adopted for the purpose of reducing GHG emissions. Impacts in this regard would be less than significant and no mitigation is required.

Regulatory Requirements

Federal

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that stabilization of GHGs at 400 to 450 ppm carbon dioxide equivalent (CO_2e)[25] concentration is required to keep global mean warming below 2 degrees Celsius (°C), which in turn is assumed to be necessary to avoid dangerous climate change.

State

Various Statewide and local initiatives to reduce the State's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then the California Air Resources Board (CARB) should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Assembly Bill 1279 (The California Climate Crisis Act)

California passed the California Climate Crisis Act (AB 1279) in September 2022. AB 1279 provides guidelines and framework for the state to achieve net zero GHG emissions as soon as, but no later than 2045. This would ensure that statewide anthropogenic GHG emissions are reduced by at least 95 percent below the 1990 levels.

Executive Order S-3-05

Executive Order S-3-05 set forth a series of target dates by which Statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Senate Bill 32

Signed into law on September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030.

CARB Scoping Plan

On December 11, 2008, CARB adopted the *Climate Change Scoping Plan* (Scoping Plan), which functions as a roadmap to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. The Scoping Plan contains the main strategies California will implement to reduce GHG emissions by 174 million metric tons (MT), or approximately 30 percent, from the State's projected 2020

[25] Carbon Dioxide Equivalent (CO2e) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

emissions level of 596 million $MTCO_2e$ under a business as usual (BAU)[26] scenario. This is a reduction of 42 million $MTCO_2e$, or almost ten percent, from 2002 to 2004 average emissions, but requires reductions in the face of population and economic growth through 2020.

The Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial, etc.). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. The measures described in the Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32.

AB 32 requires CARB to update the Scoping Plan at least once every five years. CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The Scoping Plan update also looks beyond 2020 toward the 2050 goal, established in Executive Order S-3-05 and observes that "a mid-term statewide emission limit will ensure that the State stays on course to meet our long-term goal."

On January 20, 2017, CARB released the proposed Second Update to the Scoping Plan, which identifies the State's post-2020 reduction strategy. The Second Update was finalized in November 2017 and approved on December 14, 2017, and reflects the 2030 target of a 40 percent reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. The 2017 Scoping Plan Update establishes a new Statewide emissions limit of 260 million $MTCO_2e$ for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030.

On December 15, 2022, CARB released the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan), which identifies the strategies achieving carbon neutrality by 2045 or earlier. The 2022 Scoping Plan contains the GHG reductions, technology, and clean energy mandated by statutes. The 2022 Scoping Plan was developed to achieve carbon neutrality by 2045 through a substantial reduction in fossil fuel dependence, while at the same time increasing deployment of efficient non-combustion technologies and distribution of clean energy. The plan would also reduce emissions of short-lived climate pollutants (SLCPs) and would include mechanical CO_2 capture and sequestration actions, as well as emissions and sequestration from natural and working lands and nature-based strategies. Under 2022 Scoping Plan, by 2045, California aims to cut GHG emissions by 85 percent below 1990 levels, reduce smog-forming air pollution by 71 percent, reduce the demand for liquid petroleum by 94 percent compared to current usage, improve health and welfare, and create millions of new jobs. This plan also builds upon current and previous environmental justice efforts to integrate environmental justice directly into the plan, to ensure that all communities can reap the benefits of this transformational plan.

Local

City of Plymouth General Plan

The City's General Plan contains goals and recommended actions in the Public Safety Element that aims to reduce GHG emissions. The following goals and recommended actions are applicable to the proposed project:

Relevant Goals of the General Plan:

Goal 9L. Promote alternative methods of transportation to minimize auto-dependency and the associated air pollution

[26] "Business as Usual" refers to emissions that would be expected to occur in the absence of GHG reductions; refer to http://www.arb.ca.gov/cc/inventory/data/bau.htm. Note that there is significant controversy as to what BAU means. In determining the GHG 2020 limit, CARB used the above as the "definition." It is broad enough to allow for design features to be counted as reductions.

Relevant Recommended Actions:

Action 9.43. Reduce auto dependency and greenhouse gas emissions from new development by:
Discouraging auto-dependent sprawl and dependence on private automobile;
Promoting development that is compact, mixed-use, pedestrian-friendly, and transit-oriented;
Promoting energy efficient building design and site planning; and
Improving the jobs/housing ratio in the community.

Action 9.45. Encourage new development to promote pedestrian and bicycle access and circulation to the greatest extent feasible. Require that all specific plans and discretionary development applications be reviewed to determine the need for pedestrian/bike paths connecting to adjacent development and common service facilities (e.g., clustered mailboxes, bus stops, etc.).

Action 9.50. Support and encourage the use of zero- and low-emission vehicles and car-sharing programs by requiring sufficient infrastructure and parking facilities to accommodate these vehicles.

Mitigation Measures

Project implementation would not result in significant impacts related to greenhouse gas emissions; therefore, no mitigation measures are required.

4.9 Hazards and Hazardous Materials

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX.	**HAZARDS AND HAZARDOUS MATERIALS** – Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☒	☐	☐
d)	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Environmental Setting

A Phase I Environmental Site Assessment (ESA) was prepared by Light, Air, and Space Construction, dated February 2022. The results of this report are used in the analysis below and are included in Appendix E (Phase I ESA) of this IS/MND. The ESA evaluated the two existing parcels that are oriented east-west and are occupied by the Plymouth Trading Post, a gas station, and Fig Barn Coffee/Prospect Cellars, respectively. The western parcel is identified as 9506 Main Street, and the eastern parcel is identified as 18725 Highway 49. The 18725 Highway 49 portion of the property is currently developed with a one-story wood framed building that was built prior to 1940 and has three underground storage tanks (USTs) and two fuel dispensers. The 9506 Main Street portion of the property is currently developed with a one-story concrete block and wood frame building that was built prior to 1957.

The ESA raised concerns and the need for additional study regarding the potential presence of asbestos-containing materials and lead-based paint in the existing structures, as well as Underground Storage Tanks (USTs) located at 18725 Highway 49. The ESA revealed evidence of Recognized Environmental Conditions (RECs) in connection with the subject property; visual evidence of hazardous material contamination, indications of improper hazardous material storage or disposal, and concerns relating to USTs on-site. Two of the USTs are required to be removed by December 2025, and the third has been red tagged by Amador County Health Department because of a failed integrity test in October 2018. The property has a long history of investigations and remedial activities arising from one or more leaking USTs in the 1970s and 1980s. Soil and groundwater contamination was confirmed on-site in 1998, and remedial actions were taken, however residual contamination at unknown concentrations remains a concern for the property according to the CVRWQCB. It is considered to be likely that there exists an environmental impairment to the subject property, as the parcels are currently configured.

As described in Section 3.0, Project Description, the proposed project would include a lot line reconfiguration to accommodate the development of the proposed gas station, convenience store, and car wash on a new southern parcel. The development of the proposed project would occur on the new southern lot only and would not affect the existing structures on the current parcels, which would all become the northern parcel collectively. Therefore, implementation of the proposed project would not impact noted asbestos or lead-based paint considerations. Any future development involving the existing structures would require additional study and would warrant further environmental review unrelated to the proposed project. However, due to the proximity of the proposed project to the existing use at 18725 Highway 49 for which the potential for soil and groundwater contamination is noted, additional investigation is recommended and discussed further below.

Impact Analysis

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Grading and construction activities for the proposed project would involve the use of chemical substances such as solvents, paints, fuel for equipment, asphalt, lubricants, and other potentially hazardous materials. Hazards to the environment or the public would typically occur with the transport, use, storage, or disposal of hazardous materials. Construction activities would be relatively short-term and the transport, use, and disposal of hazardous materials as part of these activities would be temporary. The contractor would be required to comply with existing regulations for the transport, use, storage, and disposal of hazardous materials to prevent public safety hazards. These regulations include the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, California Hazardous Waste Control Act, and California Accidental Release Prevention Program, among others. These potentially hazardous materials would not be used in quantities sufficient enough to pose a significant hazard to public health and safety or the environment.

Operation of the project would involve the use of hazardous materials such as cleaners, solvents, paints, degreasers, pesticides, and other custodial products, as well as gasoline/diesel. The materials used and stored on-site would be clearly labeled and safely stored in compliance with State and Federal requirements. A permit to operate an underground storage tank (UST) system is required per California Code of Regulations Title 23, Division 3, Chapter 16, California Health and Safety Code Section (25280-25299.8) and is enforced by the Amador County Environmental Health Department. This regulation mandates the testing and frequent inspection of the UST facility. The project occupant would be required to prepare a Spill Contingency Plan to be filed with the Amador County Environmental Health Department. All operations of the gas station and related USTs would be required to comply with all Federal, State, and local laws regulating the management and use of hazardous materials. With the exercise of normal safety practices, the proposed project would not create substantial hazards to the public or the environment. Therefore, a less than significant impact would occur.

The transport, use, storage, and disposal of hazardous materials would be required to comply with existing regulations established by several agencies, including the Department of Toxic Substances Control, the US

Environmental Protection Agency (EPA), the US Department of Transportation, and the Occupational Safety and Health Administration. Moreover, any businesses that transport, generate, use, and/or dispose of hazardous materials in Plymouth are subject to existing local hazardous materials regulations, such as those implemented by the Amador County Environmental Health Department which is the Certified Unified Program Agency (CUPA) for Amador County. This program is responsible for consolidating, coordinating, and making consistent the administrative requirements, permits, inspections, and enforcement activities of State standards regarding the transportation, use, and disposal of hazardous materials in Amador County, including Plymouth. Additionally, the proposed project would include a Hazardous Materials Business Plan that would regulate the handling of hazardous materials on-site and would be approved by the Amador County Environmental Health Department. Compliance with Federal, State, and local laws and regulations would result in a less than significant impact.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact With Mitigation Incorporated. As described previously, the project site is located immediately adjacent to the existing gas station that may be a source of concern for soil and groundwater contamination from USTs. While the proposed project site has not been identified within the area of concern, there is potential for contamination from the existing property at 18725 CA 49. In addition, construction activities that disturb subsurface materials could encounter previously unidentified contamination from past practices or placement of undocumented fill or even unauthorized disposal of hazardous wastes. Encountering these hazardous materials could expose workers, the public or the environment to adverse effects depending on the volume, materials involved, and concentrations.

If contaminated soils and/or groundwater (i.e., identifiable by soil staining or odors) are encountered during construction activities, work would cease until appropriate worker health and safety precautions, as specified by CCR Title (Section 5194) promulgated by Cal/OSHA, are implemented. A qualified hazardous materials specialist would be notified for an evaluation, and the appropriate regulatory agency would be contacted. If deemed necessary by the appropriate agency, remediation would be undertaken in accordance with existing Federal, State, and local regulations/requirements and guidelines established for the treatment of hazardous substances. Work would cease in the contaminated area until the nature and extent of contamination have been established, and proper disposal or remediation has occurred. Any contaminated soil and/or groundwater encountered during construction would require proper disposal. This would likely require removal from the site and transportation to an EPA-approved disposal facility by a USDOT-certified hazardous waste transporter. The designation of encountered contamination would be based on the chemicals present and chemical concentrations detected through laboratory analysis. Based on the analytical results, appropriate disposal of the material in accordance with EPA, DTSC, and RWQCB guidelines would be implemented.

To address the potential for documented and undocumented hazards on a site, the American Society for Testing and Materials has developed widely accepted practice standards for the preliminary evaluation of site hazards (E-1527-05). Phase I ESAs include a site visit to determine current conditions; an evaluation of possible risks posed by neighboring properties; interviews with persons knowledgeable about the site's history; an examination of local planning files to check prior land uses and permits granted; file searches with appropriate agencies having oversight authority relative to water quality and/or soil contamination; examination of historic aerial photography of the site and adjacent properties; a review of current topographic maps to determine drainage patterns; and an examination of chain-of-title for environmental lines and/or activity and land use limitations. A Phase I ESA was published in February 2022. The Phase I ESA found visual evidence of on-site contamination at the site adjacent to the proposed project site and revealed possible evidence of RECs close to the project site. It is recommended that a site investigation be conducted, and soil and/or groundwater sampling be performed to determine if hazardous materials associated with the adjacent site are present.

If a Phase I ESA indicates the presence, or potential presence of contamination, a site-specific Phase II ESA is generally conducted to test soil and/or groundwater. Based on the outcome of a Phase II ESA, remediation of

contaminated sites under Federal and State regulations may be required prior to development; refer to Mitigation Measures HAZ-1 and HAZ-2.

With enforcement of Mitigation Measures HAZ-1 and HAZ-2 and adherence to existing hazardous materials regulations, impacts from any existing hazardous materials would be minimized. Preparation of, and compliance with, a Phase II ESA would avoid adverse impacts associated with the construction of a future gas station, convenience store, and car wash. This would minimize the risk of accidental release of hazardous substances that could adversely affect human health or the environment. Mitigation Measure HAZ-2 would establish a hazardous materials contingency plan to address potential soil and groundwater contamination, if discovered during construction activities. Impacts related to accidental release during the construction phase would be reduced to a less than significant level.

Operation of the convenience store and car wash would not warrant use of hazardous materials in quantities that could result in hazardous conditions. However, operation of the proposed gas station could result in hazardous materials due to the potential to have liquefied petroleum gas (LPG) tanks; operation of the gas station would require a permit. All on-site activities during construction and operation would be required to adhere to Federal, State, and local regulations for the management and disposal of hazardous materials, including but not limited to California Code of Regulations Title 23, Division 3, Chapter 16, California Health and Safety Code Section (25280-25299.8) and the Amador County Underground Storage Tank Program.

Also, construction activities would be conducted in accordance with the Storm Water Pollution Prevention Plan (SWPPP) as part of the NPDES permit, as detailed in Section V.10, Hydrology and Water Quality. The primary objective of the SWPPP is to identify, construct, implement, and maintain best management practices (BMPs) to reduce pollutants in stormwater discharges and authorized non-stormwater discharges from the construction site. BMPs for hazardous materials include, but are not limited to, off-site refueling, placement of generators on impervious surfaces, establishing clean out areas for cement, etc. While the risk of exposure to hazardous materials cannot be eliminated, adherence to existing regulations would ensure compliance with safety standards related to the use and storage of hazardous materials and with the safety procedures mandated by applicable Federal, State, and local laws and regulations. Therefore, transport, use, and/or disposal of hazardous materials during construction and operation of the proposed project would be properly managed, and impacts would be less than significant with implementation of MMs HAZ-1 and HAZ-2.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact With Mitigation Incorporated. No existing or proposed public schools are located within a 0.25-mile radius of the project site. One private education and daycare center, the Monarch Montessori Preschool and Kindergarten, is located 0.24-mile west of the project site.

There is a potential to expose children at this nearby school to hazardous substances through accidental releases during construction and operation activities. During construction, potential exists for the accidental release or spill of hazardous substances such as gasoline oil, hydraulic fluid, diesel fuel, or other liquids associated with construction equipment operation and maintenance. However, use of these materials would be in limited quantities as typical during the operation and maintenance of construction equipment and would be conducted in compliance with applicable Federal, State, and local regulations.

As discussed in Threshold b) above, potential also exists for the accidental release of contaminated soil or groundwater at the site. In addition to complying with Mitigation Measures HAZ-1 and HAZ-2, the contractor would be required to use standard construction controls and safety procedures, which would avoid and minimize the potential for accidental release or spilling of such substances into the environment. With compliance with pertinent regulations and Mitigation Measures HAZ-1 and HAZ-2, the level of risk associated with the accidental release of hazardous substances during construction would be less than significant, and no mitigation is required.

As described in the response to 9b) above, operation of the convenience store and car wash would not generate hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste in quantities

that may impact students at nearby schools. Operation of the gas station could result in exposure to hazardous materials due to the potential to have liquefied petroleum gas tanks, however, operation of the gas station would require a permit and would be required to comply with all applicable Federal, State, and local regulations for the management and disposal of hazardous materials. Impacts would therefore be less than significant with implementation of Mitigation Measures HAZ-1 and HAZ-2.

d) Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant Impact With Mitigation Incorporated. According to the Phase I ESA, the project site is listed on several environmental databases for hazardous sites and Leaking Underground Storage Tank (LUST)/Spill sites compiled by the California Department of Toxic Substances Control (DTSC) or the State Water Resources Control Board (SWRCB); refer to Table 4.9-1.

Table 4.9-1
Environmental Database Listings at the Project Site

Listing Agency/Site	# of Listings
USEPA Facility Index System (FINDS)	3
CalEPA California Environmental Reporting System (CERS) Database	1 – Hazardous Waste Generator 1 – UST 1 – LUST Cleanup Site 1 – Chemical Storage Facility (several violations in 2019 that pertain to maintenance and reporting of the USTs on-site and storage of hazardous materials for which return to compliance is not documented)
Amador County CUPA	1
USEPA Enforcement and Compliance History Online Database (ECHO)	1
Environmental Database Reports (EDR)	3
Recovered Government Archive LUST	2
Exclusive Historic Gas Station (Hist Auto)	1
Envirostor	1 – leaking tank in 1988 for which the status is referred to the Central Valley Regional Water Quality Control Board (CVRWQCB)
LUST	1 – case completed and closed in February 2018
Cortese List	1 – LUST cleanup site for which the case is closed 1 – historical Cortese site
Department of Toxic Substances Control's Hazardous Waste Tracking System (HWTS)	2
HAZNET Database	1
North American Industry Classification System (NAICS)	2
Amador County Environmental Health UST Database	1
Resource Conservation and Recovery Act Non-Generator Database (RCRA NonGen/NLR)	1

The most recent LUST case was closed five years ago. The ESA raises concern for the USTs currently located at the Plymouth Trading Post, which would require further study and environmental review.[27] All of the aforementioned listings pertain to the existing Plymouth Trading Post and preceding commercial uses identified as E-Z Serve and Day & Nite Mini Mart. As previously described, the proposed project would reconfigure the lot lines such that the project site would be located on a new southern parcel, independent of the parcel the Plymouth Trading Post currently occupies. The Plymouth Trading Post would become part of a new northern parcel and would be a separate property. Any development of that property would warrant separate study and environmental review. However, the ESA revealed evidence of Recognized Environmental Conditions (RECs) in connection with the subject property, visual evidence of hazardous material contamination, indications of improper hazardous material storage or disposal, and significant concerns relating to USTs.

[27] Phase I Environmental Site Assessment, prepared by Light, Air & Space Construction, dated February 2022, page 10: "LA&S did find evidence that current use or historic use of the Property or current and/or historic activity at neighboring properties that would indicate the likelihood of environmental impairment to the subject property. In addition, LA&S did observe visual evidence of hazardous-material contamination, indications of improper hazardous material storage or disposal, or identify significant concerns relating to USTs and storage of hazardous materials at the subject property. LA&S recommends additional investigation to determine the presence of possible soil and groundwater contaminants."

Because of the proximity of the proposed project site to the site for which soil and groundwater contamination is a concern, and the uncertainty of the degree of contamination, Mitigation Measure HAZ-1 requires a Phase II ESA to be conducted to test the soil and/or groundwater, and implementation of the Phase II ESA's recommendations. Additionally, Mitigation Measure HAZ-2 requires a hazardous materials contingency plan for construction on the project site. With implementation of Mitigation Measures HAZ-1 and HAZ-2, impacts would be reduced to a less than significant level.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The project site is not located with any airport land use plan. The closest public airport is the Amador County Airport, which is located approximately 7.7 miles south of the project site. Given the distance and because the project is not in an airport land use plan area, there would be no impact.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The City of Plymouth does not have an adopted emergency operations plan or an evacuation plan. At this time, Amador County does not have an emergency evacuation plan, though an emergency operations plan is being developed.[28] The Amador Fire Safe Council designates Main Street as a primary evacuation route and SR 49 as an evacuation highway. This evacuation route leads south and west to Jackson and Highway 16, north to Placerville, and connects to both easterly and westerly evacuation routes to Amador County cities and unincorporated areas.

Short-term construction for the project is not anticipated to cause any public roadway or lane closures on adjacent or nearby streets (Main Street and SR 49). The project site would have adequate emergency access, and the site plan would be reviewed by the Amador Fire Protection District prior to implementation.

During operation, the proposed project would provide ingress and egress via a shared driveway on SR 49 and a full access existing drive on Main Street. The primary access point would be the driveway on SR 49 located approximately 174 feet south of the intersection of SR 49 and Main Street. Emergency evacuation of the site would occur via the northern and eastern driveways on Main Street and SR 49, respectively. The proposed project would not alter existing access to evacuation routes and/or drive aisles.

Therefore, the project would not affect emergency response or emergency evacuation on-site or for adjacent land uses. Impacts would be less than significant in this regard, and no mitigation measures are required.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant Impact. The project site is not located within the Fire Hazard Severity Zone in the State Responsibility Area.[29] The project site is located within an area outside of the Very High fire Hazard Severity Zone designation in the Local Responsibility Area.[30] The City of Plymouth downtown area has not historically been subject to wildland fires; there have been no recent wildland fires on or near the project site.[31] The project site is

[28] Amador County California. 2018. "Office of Emergency Services Plans and Documents." Accessed 21 October 2023. https://www.amadorgov.org/departments/office-of-emergency-services/plans-and-documents.
[29] Office of the State Fire Marshal. 2023. Fire Hazard Severity Zones Maps. Amador County. 15 June 2023. https://osfm.fire.ca.gov/fire-hazard-severity-zones-maps-2022/. Accessed 02 October 2023.
[30] California Department of Forestry and Fire Protection. 2007. *FHSZ Viewer*. https://egis.fire.ca.gov/FHSZ/. Accessed 03 October 2023.
[31] California Department of Forestry and Fire Protection. 2022. *California Large Fire Perimeters (by decade)*. https://hub.arcgis.com/maps/653647b20bc74480b335e31d6d81a52f/explore?location=38.475689%2C-120.839021%2C13.26. Accessed 03 October 2023.

surrounded by residential and commercial uses. Development of the project would not indirectly or directly increase the risk of loss, injury, or death involving wildland fires compared to existing conditions.

Development on the project site would be subject to compliance with the 2022 California Building Code (or the most current version) and the 2022 edition of the California Fire Code (or the most current version). The 2022 California Fire Code (Part 9 of Title 24 of the California Code of Regulations) includes Section 4905.2, Construction Methods and Requirements within Established Limits. Fire Code Chapter 49 cites specific requirements for wildland-urban interface areas that include, but are not limited to, providing defensible space and hazardous vegetation and fuel management. Plymouth is covered under the Amador County Local Hazard Mitigation Plan (2014). Amador County is currently updating the County Emergency Operations Plan. These plans provide guidance to effectively respond to any emergency, including wildfires. In addition, all proposed construction is required to meet minimum standards for fire safety in conformance with the California Building Code and Fire Code, which are adopted in Chapter 15.05 of the City of Plymouth Municipal Code. Therefore, impacts would be less than significant, and no mitigation measures are required.

Regulatory Requirements

Local

City of Plymouth Municipal Code

City of Plymouth Municipal Code Chapter 15.05, Building Code, requires compliance with the 2022 California Building Code (or most current version) and the 2019 edition of the California Fire Code (Part 9 of Title 24 of the California Code of Regulations).

Mitigation Measures

MM-HAZ-1: Prior to the issuance of grading permits, the Project Applicant shall conduct a Phase II ESA for the project site to determine and confirm subsurface conditions and identify recommendations for any further remediation actions for the subject site.

MM-HAZ-2: Prior to the issuance of grading permits, the Applicant shall prepare and submit a hazardous materials contingency plan to Amador County. The plan shall describe the necessary actions that would be taken if evidence of contaminated soil or groundwater is encountered during construction. The contingency plan shall identify conditions that could indicate potential hazardous materials contamination, including soil discoloration, petroleum or chemical odors, and presence of underground storage tanks or buried building material.

The contingency plan shall include the provision that if at any time during the course of constructing the project, evidence of soil and/or groundwater contamination with hazardous material is encountered, the applicant shall immediately halt construction and contact the Amador County Environmental Health Department. Work shall not commence until the discovery has been assessed/treated appropriately (through such mechanisms as soil or groundwater sampling and remediation if potentially hazardous materials are detected above threshold levels) to the satisfaction of Amador County Environmental Health, CVRWQCB, and DTSC (as applicable). The contingency plan, and obligations to abide by and implement the plan, shall be incorporated into the construction and contract specifications of the project.

4.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Environmental Setting

The City of Plymouth is located in the foothills of the Sierra Nevada Mountains. The city is not located within a groundwater basin; drinking water in Plymouth is provided from the Upper Mokelumne River Watershed. The City purchases water wholesale from the Amador Water Agency (AWA), a public non-profit special district established for the purpose of providing water, wastewater, and storm drain services to jurisdictions and unincorporated areas in Amador County. AWA utilizes canals built in the Gold Rush era to transport water from the Mokelumne River to customers around Amador County. All the drinking water supplied to the City of Plymouth comes from rainwater and snow melt in the mountains. The City of Plymouth also provides sewer services and operates a wastewater treatment plant located approximately 1.5 miles west of the City.

The Mokelumne River flows to the San Joaquin River, which is located within the San Joaquin River Basin. The San Joaquin River Basin is under the jurisdiction of the Central Valley Regional Water Quality Control Board (CVRWQCB).

Impact Analysis

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. Implementation of the project would involve grading and development of the currently vegetated site, including removal of existing trees and construction of a car wash, gas station, and convenience store. Exterior property improvements are proposed to include surface parking spaces and new landscaping. Additionally, site improvements would include grading to improve existing drainage conditions with new high and low points. Therefore, the project has the potential to result in short-term construction impacts to surface water quality from landscaping and construction-related activities. Stormwater runoff from the construction site would contain loose soils, organic matter, and sediments. Spills or leaks from heavy equipment and machinery, such as fuel, oil and grease, and heavy metals, could also enter the runoff. Building construction would involve the use of hazardous materials (e.g., paints, solvents, cleansers) that, if not properly handled, may enter the stormwater runoff.

Section 402 of the Clean Water Act establishes a framework for regulating potential water quality impacts from construction activities, as well as new development and major redevelopment, through the National Pollutant Discharge Elimination System (NPDES) program. Construction activities that disturb one acre or more of land are required to obtain an NPDES permit or coverage under the NPDES Construction General Permit Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ. The proposed project site is larger than one acre and would be subject to the requirements of the Construction General Permit. This is accomplished by completing and filing Permit Registration Documents (PRD) (including a Notice of Intent, a Storm Water Pollution Prevention Plan [SWPPP], an annual fee, and a signed certification) with the California State Water Resources Control Board (SWRCB) prior to start of construction activities.

The Best Management Practices (BMPs) in the SWPPP are implemented during construction to reduce stormwater pollutants to the maximum extent practicable. BMPs categories include, but are not limited to, erosion control and wind erosion control, sediment control, tracking control, non-storm water management controls, and waste management controls. Coverage under the NDPES Construction General Permit and implementation of the project's SWPPP and BMPs would reduce, minimize, and/or treat pollutants and prevent short-term intermittent impacts to water quality from construction activities to less than significant levels.

Stormwater pollutants of concern during the project operational phase would be sediment, trash and debris, oil and grease, bacterial indicators, car wash chemicals, nutrients, gasoline fuel, diesel, and pesticides that would come from landscaped areas, drive aisles, parking areas, the gas station, and the car wash. In accordance with the NPDES program, the project applicant would be required to prepare and implement an antidegradation analysis and a standard stormwater mitigation plan (SWP) (also known as a water quality management plan). The City would review and approve the SWP prior to construction and operation of the project. The SWP would include LID (Low Impact Development) techniques, structural and non-structural BMPs, and source control BMPs. Structural BMPs could include, but are not limited to, drainage stenciling and signage, avoiding the use of unprotected metals for roofing/gutters/trim, and designing landscape to minimize runoff. Operational source control BMPs could include education for new site owners, maintaining inlet markings, maintaining drains to prevent blockages, maintaining landscaping using minimal or no pesticides, and street and sidewalk sweeping. The implementation of BMPs in the SWP would properly manage flow and prevent stormwater pollution by reducing the potential for contamination at the source.

Moreover, the gas station would be required to have impermeable floors that are a) graded at the minimum slope necessary to prevent ponding, and b) separated from the rest of the site by a grade break that prevents run-off of stormwater to the maximum extent practicable. Additionally, the fueling areas would be covered with a canopy that is approximately 4,606 square feet and extends past the fuel dispensing areas. BMPs for the gas station and fueling area would include, but are not limited to, sweeping regularly to prevent accumulation of litter and debris.

Compliance with the NDPES permit, SWPPP, and SWP would reduce the risk of water degradation from soil erosion and other pollutants related to construction activities, and potential violations of water quality standards would be minimized through required BMPs. Therefore, the project would not violate water quality standards or waste discharge requirements. Impacts would be less than significant in this regard and no mitigation measures are required.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. The project would not involve direct or indirect withdrawals of groundwater. Domestic water service would be provided by the City of Plymouth. The project site is currently undeveloped and covered mostly by permeable, vegetated surfaces. Implementation of the proposed project would increase the impervious surface area compared to existing conditions, however, as described in Threshold a), the project would be required to comply with the NPDES permit, SWPPP, and SWP, and implement BMPs to prevent stormwater pollution. The surrounding area is mostly covered in impervious surfaces, including roads to the east and west, and a gravel parking lot to the north. According to the Phase I ESA, groundwater was most recently detected at a depth of sixteen to eighteen feet below the ground surface. The project site is not within a groundwater basin.

Therefore, the project would not deplete groundwater supplies or interfere adversely with groundwater recharge. Impacts would be less than significant, and no mitigation is required.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. Refer to Threshold b) in Section 4.7, Geology and Soils, for further discussion of erosion. As discussed in Section 4.7, Geology and Soils, construction of the proposed project would include ground-disturbing activities such as grading excavation, and other earthmoving activities. These activities have the potential to erode soil or result in the loss of topsoil if measures are not taken to prevent erosion and runoff during construction. The project would be required to obtain an NPDES permit for construction activities or coverage under the NPDES Construction General Permit. The Construction General Permit requires preparation of a SWPPP and implementation of erosion control, sediment control, tracking, waste management, and construction site maintenance BMPs to reduce the potential for soil and wind erosion during construction activities. With compliance with the Construction General Permit, construction-related erosion would be less than significant, and no mitigation is required.

The proposed project would increase the impervious surface area compared to existing conditions. There would be minimal areas of exposed soils following completion of the proposed project where erosion could occur. Site improvements and landscaping would also prevent long-term erosion. Therefore, operation-related erosion would be less than significant, and no mitigation is required.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less Than Significant Impact. As discussed in Threshold b) above, most of the project site is currently covered with permeable surfaces. The proposed project would significantly increase the surface area covered by impervious surfaces, compared to existing conditions. Surface water drainage would be controlled by building regulations, with the water directed toward existing streets, flood control channels, storm drains, and catch basins. The proposed drainage for the site would not channel runoff on exposed soils, would not direct flows over unvegetated soils, and would not otherwise increase the erosion or siltation potential of the site or any downstream areas. The proposed project is designed to have several high and low points throughout the site to

convey and collect stormwater drainage appropriately. The proposed project would include a storm drain system consisting of a series of inlets and pipes that ultimately convey runoff to a stormwater quality treatment device located on-site. Treated water would be detained in an underground system and then discharged on-site, adjacent to the public right-of-way.

As discussed above, the proposed project is subject to NPDES requirements. Additionally, the project applicant is required to submit a SWPPP to reduce erosion and sedimentation of downstream watercourses during project construction. Although development would create new impervious surfaces on the property, development associated with the proposed project would result in opportunities for the aforementioned storm water collection and treatment system and landscaped areas for on-site stormwater retention.

The site is currently mostly undeveloped with exposed soils and shrubs, and generally drains from north to south and east to west. The majority of the existing topography drains into a storm drain channel located south of the proposed property boundary, at the intersection of Mill Street and CA 49. The proposed project would increase the post-development flows compared to predevelopment levels. To reduce impacts of the increased flow from the proposed project, the stormwater conveyance and treatment system would be proposed. Routing of captured surface flow through the stormwater treatment system on-site would reduce post-development flows for all storm events.

The required project specific SWP would provide BMPs for after construction, such as educational materials for property owners, street and sidewalk sweeping, landscape maintenance, etc. Therefore, the proposed project would not result in substantial flooding on- or off-site. Impacts would be less than significant, and no mitigation measures are required.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. Refer to the response to Threshold c)ii). Most of the project site is currently covered in permeable surfaces and vegetation. Implementation of the proposed project would significantly increase the impervious surface area of the property. However, the proposed project would include drainage improvements that would increase the number of inlets and pipes on the project site and would include a stormwater treatment system to be used on-site prior to discharge. This stormwater treatment system would reduce post-development flows for the project site. The stormwater collected and treated on-site would be discharged to the existing City-owned stormwater conveyance system, for which access is provided on the project site adjacent to the public right-of-way. The proposed project's drainage would therefore improve existing drainage conditions.

Further, as discussed in Threshold a), the project would be required to obtain a NPDES permit and implement a SWP with BMPs that would maximize on-site infiltration and minimize off-site runoff and would not result in the discharge of stormwater that would exceed the stormwater conveyance capacity of existing or planned stormwater drainage systems. Therefore, the project would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant, and no mitigation measures are required.

iv) Impede or redirect flood flows?

Less Than Significant Impact. The project site, as designated by the Federal Emergency Management Agency (FEMA), is not within any flood risk zone.[32] Moreover, the project site is not within a 100- or 500-year flood zone, however, FEMA designates a small portion of the property immediately south of the project site as Zone A, which is an area with a 1% annual change of flooding. Although the proposed project would increase impervious

[32] FEMA. 2010. "FEMA Flood Map Service Center: Search By Address." 20 May 2010. Accessed 17 October 2023. https://msc.fema.gov/portal/search?AddressQuery=plymouth.

surfaces, the project site is not located within an area of flood risk, and the proposed catch basins would reduce impacts from on- or off-site flooding.

Additionally, implementation of temporary and permanent erosion control BMPs in the project's SWPPP and SWP would ensure that substantial erosion or siltation would not occur on- or off-site during short-term construction and long-term operation of the project. The project would not result in erosion or siltation that would alter the drainage pattern of the area and redirect flood flows. The project proposes a drainage system that would utilize the existing stormwater conveyance system owned by the City. Therefore, impacts would be less than significant, and no mitigation measures are required.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

No Impact. The project site is not within a flood hazard zone. A seiche is the resonant oscillation of a body of water caused by earthquake shaking. Seiche hazards exist where ground shaking causes water to splash out of the body of water and inundate nearby areas and structures. The site is not located near a large body of water that may be subject to seiche. Additionally, tsunamis are seismic sea waves generated by undersea earthquakes or landslides. The City of Plymouth is not located along the coast, and the project site is located more than 100 miles from the ocean. Further, the project site is relatively flat. There are no hillside areas on-site or in the surrounding area that could generate mudflow. According to the California Department of Water Resources Division of Safety of Dams California Dam Breach Inundation Maps, the project site is not within any dam inundation hazard zones.[33] In addition, the project is not in the vicinity of any levees.[34] Therefore, the project would not be exposed to seiches, mudflows, or tsunami hazards, and no impact would occur.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. The City of Plymouth would provide potable water to the project site; the City purchases water wholesale from the Amador Water Agency (AWA). The City of Plymouth does not have a water quality control plan or sustainable groundwater management plan. The project site is not located within the sustainable groundwater management area of the Amador Water Agency, and the AWA does not have a water quality control plan. Though the project site is not within a groundwater basin, it would be subject to the San Joaquin River Basin Plan (Water Quality Control Plan) under the jurisdiction of the Central Valley Regional Water Quality Control Board, because water for the site would originate from the Mokelumne River. The proposed project would not conflict or obstruct implementation of the CVRWQCB's Basin Plan.

In addition, there are no active groundwater management recharge activities on-site or in the vicinity. There are no groundwater wells on the project site and no wells are proposed as part of the project. The proposed project would not involve direct withdrawals of groundwater, nor would it interfere with groundwater recharge such that it would result in a net deficit of aquifer volume or lowering of the local groundwater table levels.

As discussed above in the response to Threshold a), the project would be required to comply with applicable water quality regulations for short-term and long-term impacts. Specifically, the project would have coverage under the NPDES Construction General Permit and implementation of the project's SWPPP would ensure that short-term, construction-related water quality impacts would be less than significant. For long-term water quality impacts, in accordance with the NPDES program, the project would be constructed and operated in accordance with the SWP, prepared for the project and approved by the City. Therefore, the proposed project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. Impacts would be less than significant, and no mitigation measures are required.

[33] California Department of Water Resources. "Dam Breach Inundation Map Web Publisher." Accessed 17 October 2023. https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2.

[34] U.S. Army Corps of Engineers. 2016. "National Levee Database." Accessed 17 October 2023. https://levees.sec.usace.army.mil/#/.

Regulatory Requirements

State

National Pollutant Discharge Elimination System

Prior to demolition and construction activities on the site, the contractor shall prepare and file a Permit Registration Document (PRD) with the State Water Resources Control Board in order to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities or the latest approved Construction General Permit. The PRD shall consist of a Notice of Intent (NOI); a Risk Assessment; a Site Map; a Storm Water Pollution Prevention Plan (SWPPP); an annual fee; and a signed certification statement. Pursuant to permit requirements, the Project Applicant/Developer shall implement the Best Management Practices (BMPs) in the SWPPP to reduce or eliminate construction-related pollutants in site runoff. The BMPs shall be implemented during all demolition and construction activities on the site.

Mitigation Measures

Project implementation would not result in significant impacts related to hydrology and water quality. Therefore, no mitigation measures are required.

4.11 Land Use and Planning

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Impact Analysis

This section evaluates potential impacts to Land Use and Planning that could result from project implementation. Analysis in this section is based on field observations, use of aerial photography, and a review of related planning documents used to document the existing environmental setting conditions, and information sources identified in this section.

a) Would the project physically divide an established community?

No Impact. The project would not physically divide an established community. The project site is located within an established built environment of the City of Plymouth characterized by a mixture of land uses. The surrounding area includes commercial, residential, and undeveloped uses. The project site is vacant and zoned Village Commercial (VC) and has a land-use designation of Urban Commercial (UC). The proposed project would include a change to the General Plan (GP) designation to accommodate the proposed parcel line reconfiguration.

Upon delineation of the new, northern parcel, the proposed project would maintain the existing GP and Zoning designations, Urban Commercial and Village Commercial, respectively, for the uses currently present on-site. However, the proposed project involves an application to change the GP designation of the newly established southern lot to Suburban Commercial, and to change the Zoning designation to Highway Commercial. The City of Plymouth GP describes the Suburban Commercial designation as providing the highest mix of commercial uses. The Zoning designation of Highway Commercial accommodates uses that are automobile-oriented and may be in overlay zones.

The project does not propose construction of any roadway or other structures that would physically divide any portion of the community. Implementation of the proposed project would be consistent with the existing uses in the surrounding area and would conform to the City's vision for development in this area. The proposed project would not disrupt or divide the physical arrangement of an established community; therefore, no impact would occur.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The project site has a land use designation of Urban Commercial (UC) and is zoned Village Commercial (VC). The proposed project would include an application for a General Plan Amendment and a Zone Change to accommodate the proposed parcel line reconfiguration; the project site would occupy the new southern lot, which would be changed to Suburban Commercial (SC) land use and

Highway Commercial (HC) zone. The current parcels, which would become the northern parcel collectively, would retain the same land use and zoning designations.

The proposed project is consistent with the policies and development standards established under these designations and ordinances. The General Plan states that the UC designation is for the historic downtown to reinforce the urban character of development, and that the SC designation is designed to be compatible within a neighborhood environment. The project site is surrounded by residential and commercial uses and would fit within the development pattern of the area.

As described in Section 19.52.020, Classification of Land Uses, of the Plymouth Municipal Code, the site's current VC zoning designation is intended to promote highest intensity business, retail and entertainment uses, pedestrian-oriented and historic areas. The HC zoning designation is intended for uses that are automobile-oriented and may be in overlay zones. The HC zone accommodates commercial areas adjacent to corridors and major intersections, requires a landscape surface ratio of at least twenty percent, and requires that vehicular and truck access and services be adequately addressed while maintaining a visually pleasant image of the City. Drive-through and other auto-oriented commercial retail uses are permitted with shared access curb cuts. Additionally, the SC land use designation requires a floor area ratio of 0.28 and a landscape surface ratio of forty percent. The SC land use designation is intended to be located adjacent to low density areas and in areas of visual sensitivity; the provisions for open space required by the VC designation provide for visual buffering, site landscaping, and space for on-site stormwater detention/retention.

The project site also falls within the City of Plymouth Historic Downtown Overlay District. Development within this Overlay District must conform with the features of historical buildings in the area, including varying building height within one story of adjacent buildings. The proposed project would be required to comply with the design and development standards outlined in the City's "Downtown Plymouth Combined Zone Design Review, Standards, and Guidelines." Compliance with these development standards would ensure the project's design is consistent with the Historic Downtown Overlay District. With approval of the proposed General Plan Amendment and Zone Change, the proposed project would be consistent with the General Plan land use designation and zoning for the project site, and the development requirements of the Overlay District. Additionally, the project applicant would be required to pay a development impact mitigation fee to the City to offset impacts to public services as a result of development. Therefore, impacts would be less than significant, and no mitigation measures are required.

Regulatory Requirements

Local

City of Plymouth Historic Downtown Overlay District

The Historic Downtown Overlay District, which encompasses the Downtown Plymouth Combined Zone, outlines a series of design guidelines intended to maintain the historical character of the Downtown area and promote the development of an economically vital, historic village core with commercial and cultural improvements.

City of Plymouth Municipal Code

Title 15, Chapter 15.06, Development Impact Fees, of the Plymouth Municipal Code requires that the applicant pay appropriate development impact fees prior to the issuance of a building permit for the development project.

Title 19, Zoning, Chapter 19.16, Sign Permits and Programs, of the Plymouth Municipal Code provides application and review processes for signs to be installed in the City to ensure consistency with development and design standards.

Mitigation Measures

Project implementation would not result in significant impacts related to land use and planning; therefore, no mitigation measures are required.

4.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

Impact Analysis

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less Than Significant Impact. There are no mines mapped on the project site per the California Department of Conservation.[35] The California Geological Survey (CGS) designates Mineral Resource Zones (MRZs) according to the presence of or potential for underlying mineral resources. Plymouth and the Sutter Creek area of Amador County were studied in 1983 for mineral resources, and the project site was classified as the following MRZs: MRZ-2b (containing significant inferred mineral reserves, including the Mother Lode gold belt), MRZ-4$^{(v)}$ (areas where geologic information does not rule out either the presence or absence of volcanogenic base and precious metal deposits), and MRZ-4$^{(m)}$ (areas where geologic information does not rule out either the presence or absence of chromite resources).[36] The CGS designates MRZ-2 as an area with significant mineral deposits or where it is judged that a high likelihood exists for their presence, and MRZ-4 as an area where available information is inadequate for assignment to any other MRZ zone.

Amador County is known for having significant mineral deposits; however, the City of Plymouth General Plan does not set aside any land within the City planning area for conservation or future mining of mineral deposits. According to the Bureau of Land Management's Mineral and Land Records System, the project site is located within a closed mining claim.[37] Therefore, the project site is not located on land reserved for future mining activities. There is no documented proof of specific mineral resources or recognized mineral activity on the project site. Therefore, the project would not result in the loss or availability of known mineral resources. Impacts would be less than significant, and no mitigation measures are required.

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Less Than Significant Impact. There are no known locally important mineral resource recovery sites identified on the project site in the Plymouth General Plan or in a specific plan or other land use plan. According to the General Plan Land Use and Zoning Maps, the site is zoned for commercial purposes and is not designated for

[35] California Department of Conservation. 2016. "Mines Online." Accessed 18 October 2023. https://maps.conservation.ca.gov/mol/index.html.
[36] Loyd, Ralph. California Department of Conservation Division of Mines and Geology. 1983. "Mineral Land Classification of the Sutter Creek 15 Minute Quadrangle, Amador and Calaveras Counties, California." Accessed 18 October 2023. ofr_83-36_plate8.pdf.
[37] Bureau of Land Management. 2024. "Mineral and Land Records System." Accessed 18 October 2024. https://mlrs.blm.gov/s/research-map#16,38.48092418478651,-120.84597358039247.

mineral resources or as a mineral resources recovery site. As a result, impacts would be less than significant, and no mitigation measures are required.

Regulatory Requirements

None required.

Mitigation Measures

Project implementation would not result in significant impacts related to mineral resources; therefore, no mitigation measures are required.

4.13 Noise

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

This section is based upon the Environmental Noise and Vibration Assessment, prepared by Bollard Acoustical Consultants, Inc., dated September 14, 2023, and included in Appendix F, Noise Study.

Noise Standards

City of Plymouth General Plan

The Plymouth General Plan Noise Element provides guidance on improving the safety and health of the community and abatement of excessive noise. The Element outlines noise level thresholds and land use compatibility standards as a guideline for locating new land uses. The Noise Level Thresholds established by the General Plan are provided in the following table; refer to Table 4.13-1, City of Plymouth General Plan Noise Level Thresholds.

Table 4.13-1
City of Plymouth General Plan Noise Level Thresholds

Land Use	Maximum DNL (dBA)
Agriculture	80
Residential	72
Commercial	77*
Industrial	80
Open Space	70
Public Institutional	70

Source: Plymouth General Plan, Noise Chapter, Table 8-1

Note:

* Except for special circumstances as approved by a use permit

Vibration Standards

Neither the City of Plymouth Municipal Code nor the General Plan has specific and/or quantitative regulatory standards for construction or operational vibration sources. In lieu of quantified vibration criteria, impacts are defined as significant if they exceed the Federal Transit Administration's (FTA) standards for vibration (as found in "Transit Noise and Vibration Impact Assessment" [FTA 2006]). For structural damage, FTA guidelines define an impact as significant if it exceeds 0.20 inch/second for nonengineered timber and masonry buildings, and 0.30 inch/second for engineered concrete and masonry (no plaster) buildings. For vibration annoyance, an impact is defined as significant if it exceeds 78 vibration decibels (VdB) during the day at a residential receiver or if it exceeds 84 VdB at commercial/office land uses.

Significance Thresholds

For the purpose of the noise analysis the following thresholds of significance were used to determine the noise and vibration impact on the nearest sensitive receptors. The following criteria established by the Federal Interagency Commission on Noise (FICON), California Department of Transportation (Caltrans), and Plymouth General Plan were used to evaluate the significance of environmental noise and vibration resulting from the project:

- A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise criteria presented in the Plymouth General Plan.
- A significant impact would be identified if project-generated off-site traffic would substantially increase noise levels at existing sensitive receptors in the vicinity. A substantial increase would be identified relative to the FICON noise level increase significance criteria presented in Table 4.13-18; refer to Table 4.13-18, Significance of Changes in Cumulative Noise Exposure, at the end of this section.
- In terms of determining the temporary noise increase due to project on-site operations and construction activities at existing sensitive receptors in the vicinity, an impact would occur if those activities would noticeably increase ambient noise levels above background levels at those locations. The threshold of perception of the human ear is approximately 3 to 5 dB – a 5 dB change is considered to be clearly noticeable. For the analysis of project on-site operations and construction activity noise level increases at existing sensitive receptors, a noticeable increase in ambient noise levels is assumed to occur where those activities would result in an increase by 5 dB or more over existing ambient noise levels.
- A significant impact would be identified if project construction activities or proposed on-site operations would expose sensitive receptors to excessive groundborne vibration levels. Specifically, an impact would be identified if groundborne vibration levels due to these sources would exceed Caltrans vibration impact criteria.

Existing Ambient Noise and Vibration Environment

Existing Land Uses in the Project Vicinity

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the primary intended use of the land. Places where people live, sleep, recreate, worship, and study are generally considered to be sensitive to noise because intrusive noise can be disruptive to these activities. Existing noise-sensitive land uses in the immediate project vicinity are residential. Commercial land uses are also located within the vicinity of the project; however, these uses are typically not considered to be noise-sensitive, but rather noise-generating.

Existing Overall Ambient Noise Environment within the Project Vicinity

The existing ambient noise environment within the project area is defined primarily by noise from traffic on SR 49 and Main Street, and by nearby commercial activities. To generally quantity existing ambient noise environment within the project vicinity, 72-hour ambient noise level measurements were conducted at two

locations from June 20th to June 22nd, 2023. The long-term noise survey locations are shown in Exhibit 4.13-1, Noise Survey Locations. The results of the noise survey are summarized in Table 4.13-2.

Table 4.13-2
Summary of Long-Term Ambient Noise Survey Results June 20-22, 2023

Survey Location	Date	DNL (dB)	Average Measured Hourly Noise Levels (dB)[1]			
			Daytime		Nighttime	
			L_{eq}	L_{max}	L_{eq}	L_{max}
Site 1: Northern portion of the project site	6/20/23	62	56	76	55	71
	6/21/23	60	56	77	53	70
	6/22/23	60	57	77	52	70
Site 2: Southern portion of the project site	6/20/23	64	59	78	57	74
	6/21/23	62	59	78	55	71
	6/22/23	62	60	81	54	72

Note:
[1] Daytime hours: 7:00 AM to 10:00 PM | Nighttime hours: 10:00 PM to 7:00 AM

The nearest residential and commercial uses to the project are shown in Exhibit 4.13-1, represented as Receivers R-1 through R-4 (residential) and receivers C-1 through C-3 (commercial). Noise level measurements obtained at survey site 1, located near the northern end of the project area, are believed to be representative of the existing ambient noise level environment at receivers R-1, R-2, and C-1 through C-3. Noise survey site 2, located near the southern end of the project area, was specifically selected to be representative of the existing ambient noise level environment at receivers R-3 and R-4.

As shown in Table 4.13-2, measured day-night average levels (DNL) and average measured hourly noise levels (L_{eq} and L_{max}) were generally consistent at each individual site throughout the monitoring period (i.e., relatively small range of measured levels).

Existing Ambient Vibration Environment in Project Vicinity

During site visits on June 19th and June 23rd, BAC noted that vibration levels were below the threshold of perception within the project area and the immediate project vicinity. Therefore, the existing vibration environment in the project area and immediate project vicinity is considered to be negligible.

Existing Traffic Noise Levels Along Project Area Roadway Network

To predict traffic noise levels along existing roadway networks with multiple segments, modeling is commonly used rather than monitoring. The FHWA Traffic Noise Model (FHWA-RD-77-108) was used to quantify existing traffic noise levels at the existing sensitive land uses nearest to the project area roadway network. The Model was also used to quantify the distances to the 60, 65, and 70 dB DNL traffic noise contours for these roadways. The FHWA Model predicts hourly average (L_{eq}) values for free-flowing traffic conditions. Estimates of the hourly distribution of traffic for a typical 24-hour period were used to develop DNL values from L_{eq} values.

Existing traffic data in the form of AM and PM peak hour intersection turning movements are obtained from the traffic impact analysis prepared by the project transportation consultant (MAT Engineering, Inc.). Those data were converted to Average Daily Traffic (ADT) segment volumes by applying a factor of 5 to the sum of AM and PM peak hour conditions. The existing traffic noise levels at the distances representing the nearest noise-sensitive land uses to the project area roadways and distances from the centerlines of selected roadways to the 60 dB, 65 dB, and 70 dB DNL contours are summarized in Table 4.13-3, Existing Traffic Noise Levels at Nearest Receptors and Distances to DNL Contours. Appendix F contains the FHWA Model inputs for existing conditions.

Data Sources: Bollard Acoustical Consultants
Map Export: 10/22/2024 9:41 AM.

EXHIBIT 4.13-1
Noise Survey Locations

Table 4.13-3
Existing Traffic Noise Levels at Nearest Receptors and Distances to DNL Contours

#	Roadway	Segment Description	DNL at Nearest Sensitive Receptor	Distance to Contour (ft)		
				70 dB DNL	65 dB DNL	60 dB DNL
1	SR 49	North of Main St	56	17	36	78
2	SR 49	Main St to Project Access 2	53	17	36	78
3	SR 49	Project Access 2 to Project Access 3	54	20	44	95
4	SR 49	South of Project Access 3	62	21	44	96
5	Main St	SR 49 to Project Access 1	51	6	13	28
6	Main St	West of Project Access 1	52	6	13	29
7	Shenandoah Rd	East of SR 49	47	10	22	47
8	Project Access 2	East of SR 49	30	1	1	2

Impact Analysis

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact With Mitigation Incorporated. The potential noise impacts in the community would be associated with on-site stationary sources. Motor vehicle noise on public streets is often considered as part of the ambient noise; however, when vehicles enter a private site, they are considered as part of that site's noise sources. The truck, van, and associated car activities on-site could affect the closest sensitive receptors.

The noise analysis evaluates the acoustical impact of the proposed facility on the adjacent sensitive receptors and compares it to the ambient noise levels and local noise standards to assess is any mitigation measures would be necessary to reduce the noise exposure to the community. Future community noise impacts from the on-site operations were modeled using various techniques discussed further below. This study focuses on the daytime and nighttime noise levels in order to determine the acoustical impacts of the site on the closest receivers.

Noise Sources

Traffic

With development of the project, traffic volumes on the local roadway network would increase. Those increases in daily traffic volumes will result in a corresponding increase in traffic noise levels at existing uses located along these roadways.

Existing Off-Site Traffic Noise

The FHWA Traffic Noise Model (FHWA-RD-77-108) was used to quantify increases in existing traffic noise levels at the existing sensitive land uses nearest to the project area roadway network. The FHWA Model predicts hourly L_{eq} values for free-flowing traffic conditions. Estimates of the hourly distribution of traffic for a typical 24-hour period were used to develop DNL values from L_{eq} values.

Traffic data in the form of peak hour intersection turning movements were obtained from the traffic impact analysis prepared by the project transportation consultant (MAT Engineering, Inc.). Those data were converted to Average Daily Traffic (ADT) segment volumes by applying a factor of 5 to the sum of AM and PM peak hour

conditions. Other inputs were obtained from BAC observations and noise measurement data. Appendix F, Noise Study, contains the FHWA Model inputs for existing no project and existing plus project conditions, respectively. The existing no project and existing plus project traffic noise levels at the distances representing the nearest noise-sensitive land uses to the project area roadways are summarized in Table 4.13-4. Table 4.13-4 also shows the thresholds for determination of a significant traffic noise increase, whether the roadway segment contains sensitive uses, and whether or not significant noise impacts are identified for each segment.

Table 4.13-4
Predicted Off-Site Traffic Noise Level Increases at Existing Noise-Sensitive Receptors – Existing No Project vs. Existing Plus Project Conditions

#	Roadway	Segment Description	Predicted DNL (dB)			Significance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			E	E+P	Increase				
1	SR 49	North of Main St	55.7	56.3	0.6	5.0	No	Yes	No
2	SR 49	Main St to Project Access 2	52.9	53.6	0.6	5.0	No	Yes	No
3	SR 49	Project Access 2 to Project Access 3	53.7	54.0	0.3	5.0	No	Yes	No
4	SR 49	South of Project Access 3	61.6	62.3	0.7	5.0	No	Yes	No
5	Main St	SR 49 to Project Access 1	50.6	51.7	1.1	5.0	No	Yes	No
6	Main St	West of Project Access 1	51.8	52.4	0.6	5.0	No	Yes	No
7	Shenandoah Rd	East of SR 49	47.0	47.8	0.8	5.0	No	Yes	No
8	Project Access 2	East of SR 49	29.9	29.9	0.0	5.0	No	Yes	No

Source: FHWA-RD-77-108 with inputs from MAT Engineering, Inc.

Notes:

[1] Significance thresholds established by FICON shown in Table 4.13-18.

[2] Sensitive receptors identified as existing outdoor activity areas at residential or school uses.

[3] A significant impact is identified only along segments where the project-related traffic noise level increase would exceed threshold AND where sensitive receptors are present.

Based on the analysis presented in Table 4.13-4 (existing no project vs existing plus project conditions), project-generated traffic noise level increases would not result in significant noise impacts at existing noise-sensitive receptors located along the project area roadway network. As a result, this impact is determined to be less than significant.

Opening Year Off-Site Traffic Noise

The FHWA Traffic Noise Model (FHWA-RD-77-108) was used to quantify increases in opening year traffic noise levels at the existing sensitive land uses nearest to the project area roadway network. The FHWA Model predicts

hourly L_{eq} values for free-flowing traffic conditions. Estimates of the hourly distribution of traffic for a typical 24-hour period were used to develop DNL values from L_{eq} values.

Traffic data in the form of peak hour intersection turning movements were obtained from the traffic impact analysis prepared by the project transportation consultant (MAT Engineering, Inc.). Those data were converted to Average Daily Traffic (ADT) segment volumes by applying a factor of 5 to the sum of AM and PM peak hour conditions. Other inputs were obtained from BAC observations and noise measurement data. Appendix F contains the FHWA Model inputs for opening year no project and opening year plus project conditions, respectively. The opening year no project and opening year plus project traffic noise levels at the distances representing the nearest noise-sensitive land uses to the project area roadways are summarized in Table 4.13-5. Table 4.13-5 also shows the thresholds for determination of a significant traffic noise increase, whether the roadway segment contains sensitive uses, and whether or not significant noise impacts are identified for each segment.

Table 4.13-5
Predicted Off-Site Traffic Noise Level Increases at Existing Noise-Sensitive Receptors – Opening Year No Project vs. Opening Year Plus Project Conditions

#	Roadway	Segment Description	Predicted DNL (dB)			Significance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			OY	OY+P	Increase				
1	SR 49	North of Main St	57.0	57.8	0.8	5.0	No	Yes	No
2	SR 49	Main St to Project Access 2	54.0	54.5	0.6	5.0	No	Yes	No
3	SR 49	Project Access 2 to Project Access 3	54.7	55.0	0.2	5.0	No	Yes	No
4	SR 49	South of Project Access 3	62.6	63.1	0.5	5.0	No	Yes	No
5	Main St	SR 49 to Project Access 1	51.9	52.7	0.8	5.0	No	Yes	No
6	Main St	West of Project Access 1	53.1	53.5	0.4	5.0	No	Yes	No
7	Shenandoah Rd	East of SR 49	48.2	48.8	0.6	5.0	No	Yes	No
8	Project Access 2	East of SR 49	30.5	30.5	0.0	5.0	No	Yes	No

Source: FHWA-RD-77-108 with inputs from MAT Engineering, Inc.

Notes:

[1] Significance thresholds established by FICON shown in Table 4.13-18.

[2] Sensitive receptors identified as existing outdoor activity areas at residential or school uses.

[3] A significant impact is identified only along segments where the project-related traffic noise level increase would exceed threshold AND where sensitive receptors are present.

Based on the analysis presented in Table 4.13-5 (opening year no project vs opening year plus project conditions), project-generated traffic noise level increases would not result in significant noise impacts at

existing noise-sensitive receptors located along the project area roadwaynetwork. As a result, this impact is determined to be less than significant.

Cumulative Off-Site Traffic Noise

The FHWA Traffic Noise Model (FHWA-RD-77-108) was used to quantify increases in cumulative traffic noise levels at the existing sensitive land uses nearest to the project area roadway network. The FHWA Model predicts hourly L_{eq} values for free-flowing traffic conditions. Estimates of the hourly distribution of traffic for a typical 24-hour period were used to develop DNL values from L_{eq} values.

Traffic data in the form of peak hour intersection turning movements were obtained from the traffic impact analysis prepared by the project transportation consultant (MAT Engineering, Inc.). Those data were converted to Average Daily Traffic (ADT) segment volumes by applying a factor of 5 to the sum of AM and PM peak hour conditions. Other inputs were obtained from BAC observations and noise measurement data. Appendix F contains the FHWA Model inputs for cumulative no project and cumulative plus project conditions, respectively. The cumulative no project and cumulative plus project traffic noise levels at the distances representing the nearest noise-sensitive land uses to the project area roadways are summarized in Table 4.13-6. Table 4.13-6 also shows the thresholds for determination of a significant traffic noise increase, whether the roadway segment contains sensitive uses, and whether or not significant noise impacts are identified for each segment.

Table 4.13-6
Predicted Off-Site Traffic Noise Level Increases at Existing Noise-Sensitive Receptors – Cumulative No Project vs. Cumulative Plus Project Conditions

#	Roadway	Segment Description	Predicted DNL (dB)			Significance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			C	C+P	Increase				
1	SR 49	North of Main St	48.8	52.5	3.7	5.0	No	Yes	No
2	SR 49	Main St to Project Access 2	43.6	47.6	3.9	5.0	No	Yes	No
3	SR 49	Project Access 2 to Project Access 3	44.3	46.5	2.2	5.0	No	Yes	No
4	SR 49	South of Project Access 3	52.2	56.1	4.0	5.0	No	Yes	No
5	Main St	SR 49 to Project Access 1	43.5	47.4	3.9	5.0	No	Yes	No
6	Main St	West of Project Access 1	44.7	47.1	2.4	5.0	No	Yes	No
7	Shenandoah Rd	East of SR 49	39.6	42.8	3.2	5.0	No	Yes	No
8	Project Access 2	East of SR 49[4]	—	—	—	—	—	—	—

Source: FHWA-RD-77-108 with inputs from MAT Engineering, Inc.

Notes:

[1] Significance thresholds established by FICON shown in Table 4.13-18.

[2] Sensitive receptors identified as existing outdoor activity areas at residential or school uses.

[3] A significant impact is identified only along segments where the project-related traffic noise level increase would exceed threshold AND where sensitive receptors are present.

[4] No turning movements were reported in traffic impact analysis for this segment in the cumulative no project and cumulative plus project scenarios.

Based on the analysis presented in Table 4.13-6 (cumulative no project vs cumulative plus project conditions), project-generated traffic noise level increases would not result in significant noise impacts at existing noise-sensitive receptors located along the project area roadwaynetwork. As a result, this impact is identified as being less than significant.

On-Site Operations

The project consists of the construction and operation of a combination convenience store (c-store)/gas station, car wash tunnel, and vehicle vacuum system. Noise generated by those operations were quantified through a combination of reference noise level data and application of accepted noise modeling techniques.

The primary on-site noise sources associated with the car wash component of the project have been identified as the drying assembly (used for drying the vehicles at the end of the wash cycle) and vacuum system operations. The most significant on-site noise sources associated with the proposed c-store/gas station component of the project include passenger vehicle circulation, truck circulation (i.e., medium and heavy truck

pass-bys), truck delivery activities (i.e., loading and unloading of product at convenience store storefront), air/water unit, and mechanical equipment (HVAC).

For noise generated by the above-identified on-site operations, the Plymouth General Plan noise level criteria presented in Table 4.13-1 were applied to the project. Specifically, the General Plan noise level limits for residential and commercial land uses were applied to proposed on-site operations and assessed at the nearest residential and commercial uses to the project (identified in Exhibit 4.13-1).

In terms of determining the noise level increases due to project on-site operations and construction activities, an impact would occur if those sources would noticeably increase ambient noise levels above background levels. The threshold of perception of the human ear is approximately 3 to 5 dB – a 5 dB change is considered to be clearly noticeable. For the following analyses of project on-site operations and construction noise sources, a noticeable increase in ambient noise levels is assumed to occur where noise levels are calculated to increase by 5 dB or more over existing ambient noise levels at nearby land uses.

It is anticipated that the c-store/fueling station component of the project would utilize 24-hour operations. It is also anticipated that the proposed hours of operation for the car wash tunnel and vehicle vacuum components of the project are 6:00 a.m. to 10:00 p.m.

Car Wash Drying Assembly

The car wash tunnel is proposed to be constructed on the southeastern portion of the project property. The proposed location of the car wash tunnel is shown in Exhibit 4.13-2, Project Preliminary Site Plan.

Based on the experience of BAC, noise levels generated by car washes are primarily due to the drying portion of the operation. The project proposes the installation of four (4) PDQ LaserWash 360 On-Board dryers. The manufacturer's specifications for the PDQ LaserWash 360 system are provided in Appendix F, Noise Study. The reference noise levels indicated in the specification sheet are summarized in Table 4.13-7.

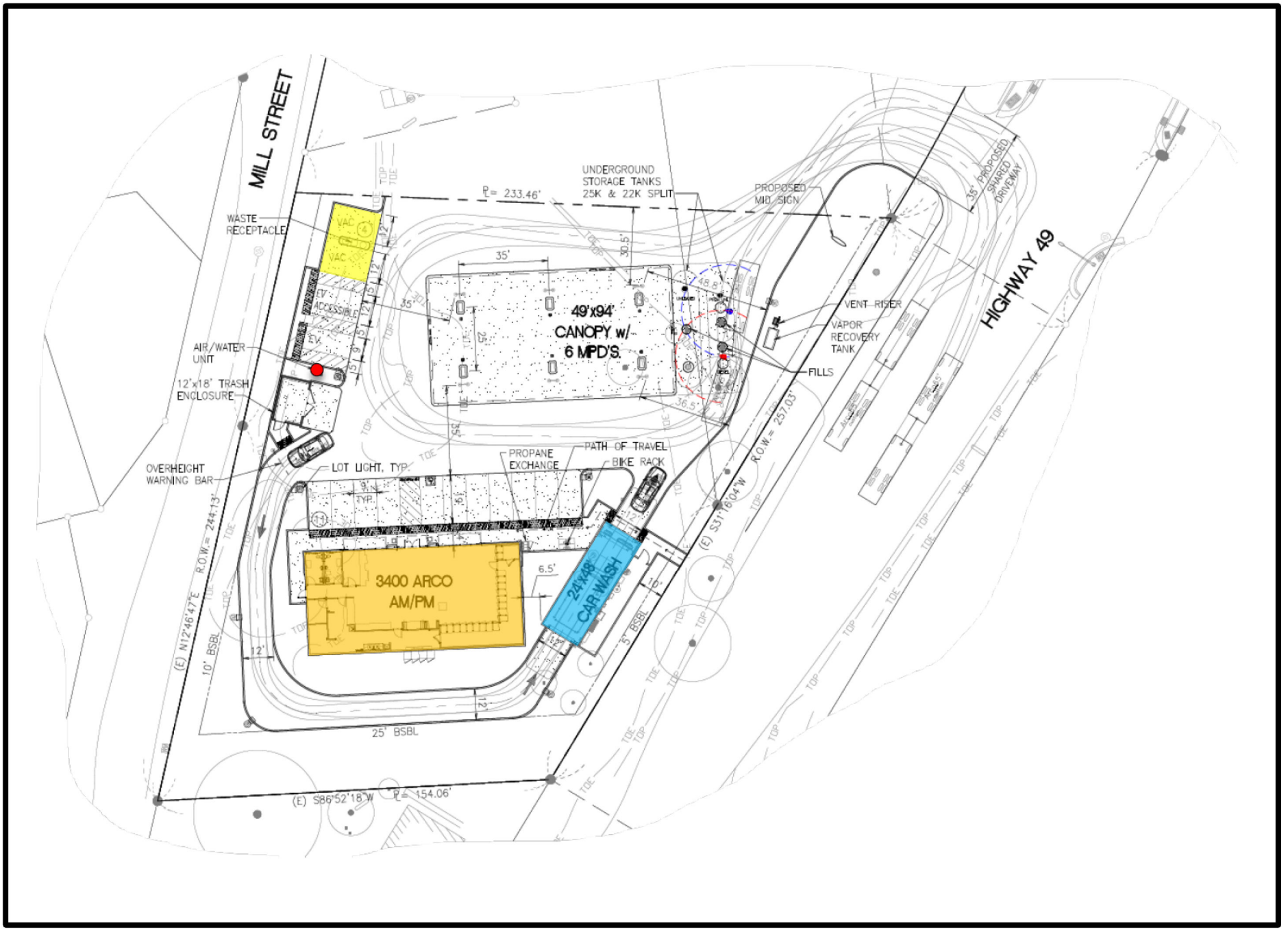
Table 4.13-7
PDQ LaserWash 360 Integrated Dryer System Reference Noise Levels

Door Orientation	Entrance/Exit	Reference Noise Level at 20 Feet from Door Opening, L_{max} (dBA)
Open	Entrance	76
	Exit	78
Closed	Entrance	67
	Exit	69

Source: PDQ Vehicle Wash Systems

According to BAC noise level measurements conducted at various car wash facilities in recent years, the noise level generation of car wash drying assemblies vary depending on the orientation of the measurement position relative to the tunnel opening. Worst-case drying assembly noise levels occur at a position directly facing the car wash exit, considered to be 0 degrees off-axis. At off-axis positions, the tunnel building facade provides varying degrees of noise level reduction. At positions 45 degrees off-axis relative to the facade of the car wash exit and entrance, drying assembly noise levels are approximately 5 dB lower. At 90 degrees off-axis, drying assembly noise levels are approximately 10 dB lower.

It is the experience of BAC in similarly configured car wash projects that the average car wash cycle is approximately 5 minutes in duration. The dryers would operate during the last 1 minute of the cycle. Therefore, during a worst-case busy hour, the car wash would go through 12 full cycles and the dryers would operate for approximately 12 minutes during that hour.



Data Sources: Bollard Acoustical Consultants
Map Export: 10/22/2024 9:43 AM.

EXHIBIT 4.13-2
Project Preliminary Site Plan

To calculate project car wash drying assembly noise levels relative to the General Plan day-night average noise level descriptor (DNL), a 24-hour average standard, the total duration of car wash dryer operations during a typical day must be known. Based on the above-mentioned car wash cycle duration information, it was conservatively assumed that the car wash would have 12 cycles per hour during daytime hours and 3 cycles per hour during nighttime hours. This equates to 12 minutes of dryer operation per hour during daytime hours and 3 minutes of dryer operation per hour during nighttime hours. The drying assembly equipment operations assumptions indicated above are believed to be representative of worst-case noise level exposure.

Based on the information provided above, and assuming standard spherical spreading loss (-6 dB per doubling of distance from a stationary source), worst-case project car wash drying assembly noise exposure at the nearest existing residential and commercial uses was calculated and the results of those calculations are presented in Table 4.13-8. For the purpose of this analysis, it was conservatively assumed that the project car wash drying assembly would be in operation with the tunnel doors in the open position (worst-case noise exposure).

Table 4.13-8
Predicted Car Wash Drying Noise Levels at Nearby Land Uses

Receiver[1]	Land Use	Predicted DNL (dB)[2,3]	General Plan Noise Standard, DNL (dB)
R-1	Residential	46	72
R-2	Residential	43	72
R-3	Residential	42	72
R-4	Residential	53	72
C-1	Commercial	47	77
C-2	Commercial	41	77
C-3	Commercial	43	77

Source: BAC 2023

Notes:

[1] Receiver locations shown in Exhibit 4.13-1.

[2] Predicted DNL assumes 12 min. operation during every daytime hour and 3 min. during nighttime hours.

[3] Predicted noise level at outdoor area of residential and commercial uses.

As indicated in Table 4.13-8, project car wash drying assembly noise level exposure is predicted to satisfy the applicable General Plan day-night average noise level (DNL) criteria at the nearest residential and commercial uses.

Table 4.13-2 contains the results from the BAC long-term ambient noise survey, which are believed to be representative of the existing ambient noise environments at the closest residential and commercial uses. Using the calculated means of measured day-night average noise levels during the surveys, ambient plus project car wash drying assembly noise level increases were calculated at the closest residential and commercial uses. According to the results from that exercise, project-generated increases in ambient noise levels are calculated to range from less than 0.1 to 0.5 dB DNL. The calculated increases above would be well below the applied increase significance criterion of 5 dB. Therefore, this impact is determined to be less than significant.

Vacuum Equipment

The project proposes a vehicle vacuum area at the northwest portion of the project parcel. Based on a review of the provided site plans (and based on information obtained from the Project Applicant), the project proposes the installation of two (2) JE Adams Model #9200 Series (2-motor large steel dome) vacuum units. The location of the proposed vacuum area is shown in Exhibit 4.13-2.

To compute the day-night average noise level (DNL), it was assumed that vacuum usage would consist of 30 minutes of continuous operation during each daytime hour and 10 minutes of continuous operation during each nighttime hour. The vacuum equipment operations assumptions indicated above are believed to be representative of worst-case noise exposure.

The manufacturer's specifications for the proposed vacuum unit model are provided in Appendix F, Noise Study. For the purposes of this analysis, it was conservatively assumed that both of the proposed vacuum units would be in operation concurrently. Based upon the manufacturer's data, the operations assumptions above, and assuming standard spherical spreading loss (-6 dB per doubling of distance), project vacuum equipment noise exposure at the nearest residential and commercial uses was calculated and the results of those calculations are presented in Table 4.13-9.

Table 4.13-9
Predicted Vacuum Equipment Noise Levels at Nearby Land Uses

Receiver[1]	Land Use	Predicted DNL (dB)[2,3]	General Plan Noise Standard, DNL (dB)
R-1	Residential	46	72
R-2	Residential	57	72
R-3	Residential	50	72
R-4	Residential	49	72
C-1	Commercial	48	77
C-2	Commercial	57	77
C-3	Commercial	46	77

Source: BAC 2023

Notes:

[1] Receiver locations shown in Exhibit 4.13-1.

[2] Predicted DNL assumes 30 min. operation during every daytime hour and 10 min. during nighttime hours.

[3] Predicted noise level at outdoor area of residential and commercial uses.

Table 4.13-9 data indicates that project vacuum system noise level exposure is predicted to satisfy the applicable General Plan day-night average noise level (DNL) criteria at the nearest residential and commercial uses. Using the calculated means of measured day-night average noise levels during the BAC surveys, ambient plus project vacuum system noise level increases were calculated at the closest residential and commercial uses. According to the results from that exercise, project-generated increases in ambient noise levels are calculated to range from 0.1 to 1.4 dB DNL. The calculated increases above would be well below the applied increase significance criterion of 5 dB. Therefore, this impact is determined to be less than significant.

Vehicle Circulation Noise

To quantify project-generated on-site traffic circulation noise level exposure, BAC utilized specific automobile pass-by noise level measurements conducted by BAC with trip generation data provided by the project transportation consultant (MAT Engineering, Inc.). The BAC vehicle pass-by measurements included a series of individual noise measurements of multiple vehicle types arriving and departing a parking area. The results of those measurements revealed that individual vehicle pass-bys generated mean noise levels of approximately 70 dB SEL at a reference distance of 50 feet.

According to data provided by MAT Engineering, Inc., the project is estimated to generate approximately 3,650 daily vehicle trips, with 244 AM peak hour trips and 269 PM peak hour trips (without consideration of pass-by adjustment). For the purposes of computing day-night average noise levels (DNL) from project on-site vehicle circulation, worst-case estimated peak hour trips were used during daytime hours (269) and 50% of worst-case peak hour trips were assumed during nighttime hours (135).

Based on the BAC measurement data, peak hour trip generation estimates, and operations assumptions above, project on-site vehicle circulation exposure at the nearest residential and commercial uses was calculated and the results of those calculations are presented in Table 4.13-10.

Table 4.13-10
Predicted On-Site Passenger Vehicle Circulation Noise Levels at Nearby Land Uses

Receiver[1]	Land Use	Predicted DNL (dB)[2,3]	General Plan Noise Standard, DNL (dB)
R-1	Residential	53	72
R-2	Residential	56	72
R-3	Residential	56	72
R-4	Residential	58	72
C-1	Commercial	55	77
C-2	Commercial	56	77
C-3	Commercial	55	77

Source: BAC 2023

Notes:

[1] Receiver locations shown in Exhibit 4.13-1.

[2] Predicted DNL based on worst-case peak hour trips during daytime and 50% worst-case during nighttime.

[3] Predicted noise level at outdoor area of residential and commercial uses.

As shown in Table 4.13-10, worst-case project on-site vehicle circulation noise level exposure is predicted to satisfy the applicable General Plan day-night average noise level (DNL) criteria at the nearest residential and commercial uses. Using the calculated means of measured day-night average noise levels during the surveys, ambient plus project on-site vehicle circulation noise level increases were calculated at the closest residential and commercial uses. According to the results from that exercise, project-generated increases in ambient noise levels are calculated to range from 0.8 to 1.3 dB DNL. The calculated increases above would be well below the applied increase significance criterion of 5 dB. Therefore, this impact is determined to be less than significant.

On-Site Truck Circulation Noise

It is the experience of BAC that deliveries of product to c-stores such as the one proposed by the project occur at the front of the store with medium-duty vendor trucks/vans. However, the fueling station component would also receive deliveries from heavy fueling trucks for the purpose of refilling the underground storage tanks. The proposed on-site truck circulation route is shown in Exhibit 4.13-2.

On-site truck pass-bys are expected to be relatively brief and would occur at low speeds. To predict noise levels generated by on-site truck circulation, BAC utilized file data obtained from measurements conducted by BAC of heavy and medium duty truck pass-bys. According to BAC file data, single-event heavy truck pass-by noise levels are approximately 74 dB L_{max} and 83 dB SEL at a reference distance of 50 feet. BAC file data also indicates that single-event medium truck pass-by noise levels are approximately 66 dB L_{max} and 76 SEL at a reference distance of 50 feet.

For a conservative assessment of daily truck delivery noise levels at the proposed c-store/fueling station, it was assumed that 1 heavy truck and 4 medium duty trucks/vans would deliver products to the store on a typical busy day. To calculate day-night average noise level (DNL) exposure,a total of 5 truck deliveries were conservatively assumed to all occur during nighttime hours (believed to be worst-case DNL exposure).

Based on the reference noise level data and operations assumptions presented above, and assuming standard spherical spreading loss (-6 dB per doubling of distance), project on-site truck circulation exposure at the nearest residential and commercial uses was calculated and the results of those calculations are presented in Table 4.13-11.

Table 4.13-11
Predicted On-Site Truck Circulation Noise Levels at Nearby Land Uses

Receiver[1]	Land Use	Predicted DNL (dB)[2,3]	General Plan Noise Standard, DNL (dB)
R-1	Residential	31	72
R-2	Residential	38	72
R-3	Residential	32	72
R-4	Residential	33	72
C-1	Commercial	31	77
C-2	Commercial	35	77
C-3	Commercial	34	77

Source: BAC 2023

Notes:

[1] Receiver locations shown in Exhibit 4.13-1.

[2] Predicted DNL based on 4 medium truck and 1 heavy truck trips during nighttime hours only.

[3] Predicted noise level at outdoor area of residential and commercial uses.

Table 4.13-11 data indicates that project on-site truck circulation noise level exposure is predicted to satisfy the applicable General Plan day-night average noise level (DNL) criteria at the nearest residential and commercial uses. Using the calculated means of measured day-night average noise levels during the BAC surveys, ambient plus project on-site truck circulation noise level increases were calculated at the closest residential and commercial uses. According to the results from that exercise, project-generated increases in ambient noise levels are calculated to be less than 0.1 dB DNL. The calculated increases above would be well below the applied increase significance criterion of 5 dB. Based on the analysis provided above, this impact is determined to be less than significant.

Truck Delivery Activity

As mentioned previously, it is the experience of BAC that deliveries of product to c-stores such as the one proposed by the project occur at the front of the store with medium-duty vendor trucks/vans. The location of the c-store building is shown in Exhibit 4.13-2. The primary noise sources associated with delivery activities are trucks stopping (air brakes), trucks backing into position (back-up alarms), and pulling away from the loading/unloading area (revving engines).

For a conservative assessment of daily truck delivery noise levels at the proposed c-store, it was assumed that 4 medium duty trucks/vans would deliver products to the store on a typical busy day. To compute the day-night average noise level (DNL), it was assumed that 4 truck deliveries would all occur during nighttime hours (worst-case DNL exposure). BAC file data indicates that noise levels associated with medium-duty truck deliveries (including side-step vans) are approximately 76 dB SEL at a distance of 100 feet. Based on the BAC file data and operations assumptions above, and assuming standard spherical spreading loss (-6 dB per doubling of distance), project truck delivery noise level exposure at the nearest residential and commercial uses was calculated and the results of those calculations are presented in Table 4.13-12.

Table 4.13-12
Predicted Truck Delivery Activity Noise Levels at Nearby Land Uses

Receiver[1]	Land Use	Predicted DNL (dB)[2,3]	General Plan Noise Standard, DNL (dB)
R-1	Residential	29	72
R-2	Residential	40	72
R-3	Residential	36	72
R-4	Residential	32	72
C-1	Commercial	32	77
C-2	Commercial	38	77
C-3	Commercial	32	77

Source: BAC 2023

Notes:

[1] Receiver locations shown in Exhibit 4.13-1.

[2] Predicted DNL based on 4 medium truck deliveries during nighttime hours only.

[3] Predicted noise level at outdoor area of residential and commercial uses.

As indicated in Table 4.13-12, project truck delivery activity noise level exposure is predicted to satisfy the applicable General Plan day-night average noise level (DNL) criteria at the nearest residential and commercial uses. Using the calculated means of measured day-night average noise levels during the surveys, ambient plus project truck delivery activity noise level increases were calculated at the closest residential and commercial uses. According to the results from that exercise, project-generated increases in ambient noise levels are calculated to be less than 0.1 dB DNL. The calculated increases above would be well below the applied increase significance criterion of 5 dB. Therefore, this impact is determined to be less than significant.

Air/Water Unit

The project proposes the installation and operation of an air/water unit for patron usage. The location of the air/water unit is shown in Exhibit 4.13-2.

To quantify project air/water unit noise for the purpose of this analysis, noise measurements recently conducted by BAC of an existing unit at an ARCO AM/PM station located in Auburn, CA were utilized. The results of the BAC effort indicate that the ARCO air/water unit noise was measured to have a maximum noise level of approximately 65 dB L_{max} at distance of 10 feet from the equipment. To calculate the day-night average noise level (DNL), it was conservatively assumed that project air/water unit usage would consist of 30 minutes of continuous operation during each daytime hour and 10 minutes of continuous operation during each nighttime hour.

Given the operations assumption above, and assuming standard spherical spreading loss (-6 dB per doubling of distance), project air/water unit noise level exposure at the nearest residential and commercial uses was calculated and the results of those calculations are presented in Table 4.13-13.

Table 4.13-13
Predicted Air/Water Unit Noise Levels at Nearby Land Uses

Receiver[1]	Land Use	Predicted DNL (dB)[2,3]	General Plan Noise Standard, DNL (dB)
R-1	Residential	32	72
R-2	Residential	47	72
R-3	Residential	38	72
R-4	Residential	39	72
C-1	Commercial	35	77
C-2	Commercial	43	77
C-3	Commercial	33	77

Source: BAC 2023

Notes:

[1] Receiver locations shown in Exhibit 4.13-1.

[2] Predicted DNL assumes 30 min. operation during daytime hours and 10 min. during nighttime hours.

[3] Predicted noise level at outdoor area of residential and commercial uses.

Based on the predicted equipment noise levels presented in Table 4.13-13, it is expected that project air/water unit noise level exposure would satisfy the applicable General Plan day-night average noise level (DNL) criteria at the nearest residential and commercial uses. Using the calculated means of measured day-night average noise levels during the BAC surveys, ambient plus project air/water unit noise level increases were calculated at the closest residential and commercial uses. According to the results from that exercise, project-generated increases in ambient noise levels are calculated to range from less than 0.1 to 0.2 dB DNL. The calculated increases above would be well below the applied increase significance criterion of 5 dB. Based on the analysis provided above, this impact is determined to be less than significant.

C-Store Mechanical Equipment (HVAC)

Heating, ventilating, and air conditioning (HVAC) requirements for the proposed c-store will most likely be met using packaged roof-mounted systems. To generally quantify project HVAC equipment noise exposure, BAC utilized reference file data collected for previous studies. BAC reference file data for HVAC systems indicate that a 12.5-ton packaged unit can be expected to generate an A-weighted sound power level of 85 dB. To compute hourly average and day-night average noise level exposure (DNL), it was conservatively assumed that project HVAC equipment would be in continuous 24-hour operation (believed to be worst-case noise exposure).

Based on the sound power data and operations assumptions above, and assuming standard spherical spreading loss (-6 dB per doubling of distance), project HVAC equipment noise exposure at the nearest residential and commercial uses was calculated and the results of those calculations are presented in Table 4.13-14.

Table 4.13-14
Predicted HVAC Equipment Noise Levels at Nearby Land Uses

Receiver[1]	Land Use	Predicted DNL (dB)[2,3]	General Plan Noise Standard, DNL (dB)
R-1	Residential	37	72
R-2	Residential	49	72
R-3	Residential	46	72
R-4	Residential	51	72
C-1	Commercial	40	77
C-2	Commercial	47	77
C-3	Commercial	41	77

Source: BAC 2023

Notes:

[1] Receiver locations shown in Exhibit 4.13-1.

[2] Predicted DNL assumes continuous equipment operations during a given 24-hour period.

[3] Predicted noise level at outdoor area of residential and commercial uses.

As shown in Table 4.13-14, project HVAC equipment noise level exposure is predicted to satisfy the applicable General Plan day-night average noise level (DNL) criteria at the nearest residential and commercial uses. Using the calculated means of measured day-night average noise levels during the surveys, ambient plus project HVAC equipment noise level increases were calculated at the closest residential and commercial uses. According to the results from that exercise, project-generated increases in ambient noise levels are calculated to range from less than 0.1 to 0.3 dB DNL. The calculated increases above would be well below the applied increase significance criterion of 5 dB. Therefore, this impact is determined to be less than significant.

Cumulative Noise at Nearby Land Uses

The calculated cumulative (combined) noise levels from analyzed project on-site noise sources at the closest residential and commercial uses are presented in Table 4.13-15. It should be noted that due to the logarithmic nature of the decibel scale, the sum of two noise values which differ by 10 dB equates to an overall increase in noise levels of 0.4 dB. When the noise sources are equivalent, the sum would result in an overall increase in noise levels of 3 dB.

Table 4.13-15
Calculated Cumulative On-Site Operations Noise Levels at Nearby Land Uses

Receiver	Predicted Noise Levels, DNL (dB)							Calculated Cumulative, DNL (dB)	General Plan Standard, DNL (dB)
	Car Wash Dryers	Vehicle Vacuums	On-Site Vehicle Circulation	On-Site Truck Circulation	Truck Deliveries	Air/Water Unit	HVAC		
R-1	46	46	53	31	29	32	37	55	72
R-2	43	57	56	38	40	47	49	60	72
R-3	42	50	56	32	36	38	46	57	72
R-4	53	49	58	33	32	39	51	60	72
C-1	47	48	55	31	32	35	40	57	77
C-2	41	57	56	35	38	43	47	60	77
C-3	43	46	55	34	32	33	41	56	77

Source: BAC 2023

As indicated in Table 4.13-15, cumulative day-night average noise level (DNL) exposure from analyzed on-site operations is predicted to satisfy the applicable General Plan DNL criteria at the nearest residential and commercial uses. Cumulative project-generated increases in ambient day-night average noise levels are calculated to range from 0.9 to 2.7 dB DNL. The calculated increases would be below the applied increase significance criterion of 5 dB.

Therefore, noise impacts from operational activities and traffic at the project site would be less than significant and no mitigation measures are required.

Construction Equipment/Activities

During project construction, heavy equipment would be used for grading excavation, paving, and building construction, which would increase ambient noise levels when in use. Noise levels would vary depending on the type of equipment used, how it is operated, and how well it is maintained. Noise exposure at any single point outside the project work area would also vary depending upon the proximity of equipment activities to that point.

Table 4.13-16 includes the range of maximum (L_{max}) noise levels for equipment commonly used in general construction projects at full-power operation at a distance of 50 feet. It should be noted that not all of these construction activities would be required for this project. Table 4.13-16 data also includes predicted maximum equipment noise levels at the nearest land uses, which assumes a standard spherical spreading loss of 6 dB per doubling of distance.

Table 4.13-16
Reference and Projected Noise Levels for Typical Construction Equipment

Equipment Description	Reference Noise Level at 50 Feet, L_{max} (dB)	Predicted Maximum Noise Level at Receiver, L_{max} (dB)[1]						
		R-1	R-2	R-3	R-4	C-1	C-2	C-3
Air compressor	80	64	76	72	76	65	74	66
Backhoe	80	64	76	72	76	65	74	66
Ballast equalizer	82	66	78	74	78	67	76	68
Ballast tamper	83	67	79	75	79	68	77	69
Compactor	82	66	78	74	78	67	76	68
Concrete mixer	85	69	81	77	81	70	79	71
Concrete pump	82	66	78	74	78	67	76	68
Concrete vibrator	76	60	72	68	72	61	70	62
Crane, mobile	83	67	79	75	79	68	77	69
Dozer	85	69	81	77	81	70	79	71
Excavator	85	69	81	77	81	70	79	71
Generator	82	66	78	74	78	67	76	68
Grader	85	69	81	77	81	70	79	71
Impact wrench	85	69	81	77	81	70	79	71
Loader	80	64	76	72	76	65	74	66
Paver	85	69	81	77	81	70	79	71
Pneumatic tool	85	69	81	77	81	70	79	71
Pump	77	61	73	69	73	62	71	63
Saw	76	60	72	68	72	61	70	62
Scarifier	83	67	79	75	79	68	77	69
Scraper	85	69	81	77	81	70	79	71
Shovel	82	66	78	74	78	67	76	68
Spike driver	77	61	73	69	73	62	71	63
Tie cutter	84	68	80	76	80	69	78	70
Tie handler	80	64	76	72	76	65	74	66
Tie inserter	85	69	81	77	81	70	79	71
Truck	84	68	80	76	80	69	78	70
Low	*76*	*60*	*72*	*68*	*72*	*61*	*70*	*62*
High	*85*	*69*	*81*	*77*	*81*	*70*	*79*	*71*
Average	*82*	*66*	*79*	*74*	*79*	*67*	*76*	*68*

Source: 2018 FTA Transit Noise and Vibration Impact Assessment Manual (Table 7-1) and BAC calculations

As indicated in Table 4.13-16, construction activities typically generate noise levels ranging from approximately 75 to 85 dB L_{max} at a reference distance of 50 feet from the construction activities. The noise levels from construction operations would decrease at a rate of approximately 6 dB per doubling of distance from the source. As a result, maximum construction noise levels could range from 60 to 72 dB L_{max} at the nearest existing residential uses (receivers R-1 through R-4), and from 61 to 70 dB L_{max} at the closest commercial uses (receivers

C-1 through C-3). However, after analysis of the results from the BAC ambient noise monitoring surveys (contained in Appendix F), the predicted construction equipment noise levels in Table 4.13-16 would be below or within the range of ambient maximum noise levels already occurring at the closest residential and commercial uses.

Table 4.13-2 contains the results from the BAC long-term ambient noise survey, which are believed to be representative of the existing ambient noise environments at the closest residential and commercial uses. Using the average hourly daytime maximum noise levels measured during daytime hours (7:00 a.m. to 10:00 p.m.), and the calculated average of predicted construction equipment maximum noise levels shown in Table 4.13-16, ambient plus project construction noise level increases were calculated at the closest residential and commercial uses. The results of those calculations indicate that increases in ambient maximum noise levels from project construction activities would range from 0.3 to 3.9 dB L_{max} at the closest residential uses (receivers R-1 though R-4), and from 0.4 to 2.6 dB L_{max} at the nearest commercial uses (receivers C-1 through C-6). The calculated ranges of ambient daytime maximum noise level increases are below the applied increase significance criterion of 5 dB.

Based on the analysis provided above, project construction activities are not calculated to result in generation of a substantial temporary or permanent increase in ambient noise levels at the closest existing residential or commercial uses to the project area. As a result, noise impacts related to construction and operation of the proposed project are determined to be less than significant. However, to reduce the potential for effects at nearby land uses, Mitigation Measure NOI-1 includes common practices that shall be incorporated into project on-site construction operations.

With compliance with Mitigation Measure NOI-1, impacts related to noise from construction and operation of the proposed project would be less than significant.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. During project construction, heavy equipment would be used for grading, excavation, paving, and building construction, which would generate localized vibration in the immediate vicinity of those activities. The nearest off-site existing structures have been identified as a residence (receiver R-4) and a commercial building (receiver C-2); refer to Exhibit 4.13-1. Table 4.13-17 includes the range of vibration levels for equipment commonly used in general construction projects at a distance of 25 feet. Table 4.13-17 data also include projected equipment vibration levels at the closest existing off-site structures (receiver R-4 and C-2).

Table 4.13-17
Reference and Projected Construction Equipment Vibration Source Amplitudes

Equipment	Reference Maximum Vibration Level at 25 Feet, PPV (in/sec)[1]	Projected Maximum Vibration Level, PPV (in/sec)[1]	
		R-4 (50 ft)	C-2 (75 ft)
Vibratory roller	0.210	0.074	0.040
Large bulldozer	0.089	0.031	0.017
Loaded trucks	0.076	0.027	0.015
Jackhammer	0.035	0.012	0.007
Small bulldozer	0.003	<0.001	<0.001

Source: 2018 FTA Transit Noise and Vibration Impact Assessment Manual (Table 7-4) and BAC calculations
Note:
[1] PPV = Peak Particle Velocity

Table 4.13-17 data indicates that vibration levels generated from construction activities within the project area at the nearest existing off-site structures are predicted to be well below the strictest Caltrans thresholds for

damage to structures (0.5 in/sec PPV). In addition, the projected equipment vibration levels in Table 4.13-17 range from imperceptible to distinctly perceptible human response as defined by Caltrans in Table 4.13-20 (vibration annoyance potential threshold criteria). However, based on the analysis provided above, on-site construction within the project area is not expected to result in excessive groundborne vibration levels at nearby existing off-site structures.

During BAC site visits on June 19th and June 23rd, 2023, vibration levels within the project area were imperceptible. Therefore, it is expected that the project would not result in the exposure of persons to excessive groundborne vibration levels at uses surrounding the proposed project site. Furthermore, the project proposes the development of commercial uses, which do not typically have equipment that generates appreciable vibration. Groundborne vibration is not a concern during the operational phase of the project.

Therefore, impacts regarding excessive groundborne vibration and noise are determined to be less than significant, and no mitigation measures are required.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project is not located within an airport land use plan. There is no public airport or public use airport located within two miles of the project site. The closest public airport, the Amador County Airport, is located approximately 7.7 miles south of the project site. The proposed project would not expose people residing or working in the area to excessive noise levels. Therefore, no impact would occur, and no mitigation measures are required.

Regulatory Requirements

Federal

There are no Federal noise or vibration criteria which would be directly applicable to this project. However, the City of Plymouth does not currently have policies for assessing impacts associated with increases in ambient noise levels from project-generated noise sources. As a result, the following Federal noise criteria were applied to the project.

Federal Interagency Commission on Noise (FICON)

The Federal Interagency Commission on Noise (FICON) has developed a graduated scale for use in the assessment of project-related noise level increases. The criteria shown in Table 4.13-18 was developed by FICON as a means of developing thresholds for impact identification for project-related noise level increases. The FICON standards have been used extensively in recent years in the preparation of the noise sections of Environmental Impact Reports that have been certified in many California cities and counties.

The use of the FICON standards is considered conservative relative to thresholds used by other agencies in the State of California. For example, the Department of Transportation (Caltrans) requires a project-related traffic noise level increase of 12 dB for a finding of significance, and the California Energy Commission (CEC) considers project-related noise level increases between 5 to 10 dB significant, depending on local factors. Therefore, the use of the FICON standards, which set the threshold for finding significant noise impacts as low as 1.5 dB, provides a very conservative approach to impact assessment for this project.

Table 4.13-18
Significance of Changes in Cumulative Noise Exposure

Ambient Noise Level Without Project (DNL)	Change in Ambient Noise Level Due to Project
<60 dB	+5.0 dB or more
60 to 65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: Federal Interagency Committee on Noise (FICON)

Based on the FICON research, as shown in Table 4.13-18, a 5 dB increase in noise levels due to a project is required for a finding of significant noise impact where ambient noise levels without the project are less than 60 dB DNL. Where pre-project ambient conditions are between 60 and 65 db DNL, a 3 dB increase is applied as the standard of significance. Finally, in areas already exposed to higher noise levels, specifically pre-project noise levels in excess of 65 dB DNL, a 1.5 dB increase is considered by FICON as the threshold of significance.

State

California Department of Transportation (Caltrans)

The City of Plymouth does not currently have adopted standards for groundborne vibration. As a result, the vibration impact criteria developed by the California Department of Transportation (Caltrans) was applied to the project. The Caltrans guidance criteria for building structure and vibration annoyance are presented in Tables 4.13-19 and 4.13- 20, respectively.

Table 4.13-19
Caltrans Guidance for Building Structure Vibration Criteria

Structure and Conditions	Limiting PPV (in/sec)
Historic and some old buildings	0.5
Residential structures	0.5
New residential structures	1.0
Industrial buildings	2.0
Bridges	2.0

Source: 2020 Caltrans Transportation and Construction Vibration Guidance Manual, Table 14

Table 4.13-20
Caltrans Guidance for Vibration Annoyance Potential Criteria

	Maximum PPV (in/sec)	
Human Response	Transient Sources	Continuous/Frequent Intermittent Sources
Severe/very disturbing	2.0	0.4 to 3.6
Strongly perceptible	0.9	0.1
Distinctly perceptible	0.24	0.035
Barely/slightly perceptible	0.035	0.012

Source: 2020 Caltrans Transportation and Construction Vibration Guidance Manual, Tables 4 & 6

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent sources include pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers and vibratory compaction equipment.

Local

Plymouth General Plan

Section 8 (Noise) of the Plymouth General Plan contains the City's noise-related goals and actions. The specific goals and actions which are generally applicable to this project are reproduced below:

Goals:

Goal 8A. Use established laws and guidelines to understand impacts of development and incorporate mitigation measures as necessary.

Goal 8B. Maintain the City's aesthetic character by mitigating noise through alternative means to those of sound-attenuating walls.

Goal 8D. Utilize effective noise buffering between adjacent, incompatible land uses.

Goal 8F. Discourage new development from occurring where it may generate noise pollution for existing future residents.

Goal 8G. Provide for the protection of excessive ambient noise levels in noise-sensitive areas.

Goal 8H. Take proactive measures to abate and attenuate noise.

Actions:

Action 8.2. Enforce the provisions of the California Environmental Quality Act (CEQA) and the City's EIR Guidelines for noise related issues associated with development projects.

Action 8.4. Require developments that are a source of noise to provide for berms, vegetation, and other appropriate sound barriers. In some extenuating cases, sound-attenuating walls may be approved in addition or in lieu of other sound barriers. Sound walls are discouraged in favor of alternative solutions such as increased separation and the use of berms and intensive vegetation.

Action 8.8. Require compliance with the California Uniform Building Code noise insulation standards in all new development.

Action 8.11. Require each applicable development proposal to present projected ambient noise levels prior to approval.

Action 8.12. Develop and maintain a chart of acceptable noise levels for different land uses.

Action 8.13. Require new development to accurately identify any significant increase in ambient noise and address both on- and off-site impacts.

Action 8.14. Enforce building code requirements pertaining to acoustical safety for new developments.

Action 8.15. Require noise reports prepared for new development to specifically address the noise associated with the traffic generated by the project.

Action 8.18. Provide protective measures to mitigate the impacts of noise caused by new development.

Action 8.19. Require all buffering to be on-site of new development so as to not be a cost or detriment to existing uses.

Action 8.19. Require noise buffering improvements to be placed on the subject development site. In the case of adjacent undeveloped properties, each shall contribute to the requisite noise buffering.

Mitigation Measures

MM-NOI-1: Applicant shall submit a plan showing all of the information to be reviewed and approved by the Planning Department, prior to issuance of grading and development approval, in order to assure the following:

- All on-site noise-generating construction activities should be limited to daytime hours (between 7:00 AM and 6:00 PM).
- All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturers-recommended mufflers and be maintained in good working condition.
- All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a Federal, State, or local agency shall comply with such regulations while in the course of project activity.
- Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.
- Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive uses.
- Project area and site access road speed limits shall be established and enforced during the construction period.
- Nearby residences and commercial uses shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-termincreases in ambient noise levels.

4.14 Population and Housing

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Impact Analysis

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. The project's commercial uses are expected to generate up to 15 new jobs. The proposed project employment generation is not expected to result in a significant relocation of employees to the region due to the size of the existing labor pool in the regional area.

The proposed project would not include any residential dwelling units or new roads and infrastructure that could induce substantial population growth. The proposed project would utilize 12 to 15 employees, some part-time, and split between three shifts per day and varying shifts throughout a given week. Because of the nature of the project, employees would likely be from surrounding areas.

Therefore, the project would not result in substantial unplanned population growth, directly or indirectly. The impacts would be less than significant, and no mitigation measures are required.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project site is vacant and does not contain any housing units. Therefore, the construction of the proposed project would not displace substantial numbers of existing people or housing units, which could necessitate the construction of replacement housing elsewhere. No impact would occur and no mitigation measures are required.

Regulatory Requirements

None required.

Mitigation Measures

Project implementation would not result in significant impacts related to population and housing; therefore, no mitigation measures are required.

4.15 Public Services

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES – Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

Impact Analysis

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

Less Than Significant Impact. Fire protection services for the project site are provided by the Amador Fire Protection District (AFPD), which maintains and operates seven fire stations around Amador County, including two stations in Plymouth. The 24-hour protection is provided by trained and qualified personnel on duty at the seven fire stations serving the County. Amador Fire Station 122, located approximately 1,600 feet southwest of the project site, is staffed year-round with paid staff and volunteers and has two engines and one water tender. Fire Station 122 is located at 18534 Sherwood Street and would provide fire response to the project site. Amador Fire Station 121, located just outside City limits and approximately 4.12 miles southwest of the project site, is staffed by volunteers and has two engines and one water tender.

Development of the project uses could potentially increase the demand for fire protection and emergency services and the associated apparatus, equipment, and personnel compared to existing conditions. However, the proposed project would be located on a partially disturbed site and includes a commercial development that would be subject to City standards and regulations. The proposed project does not include residential development and would not induce any unplanned population growth. Fire protection services required at the project site would be similar to existing conditions at 18725 Highway 49. Additionally, prior to permit issuance, standard conditions of approval for any new development require approval by the AFPD. Final approval of project construction from AFPD would be required during plan check and prior to the issuance of grading and building permits. Therefore, implementation of the project is not expected to have a significant impact on fire protection services that would result in the need for new firefighters and personnel, nor would it require the construction of new, or the alteration of existing, fire protection facilities to maintain an adequate level of fire protection service in the city.

The proposed project would be required to comply with all applicable codes, ordinances, and regulations (including the City's Municipal Code) regarding fire prevention and suppression measures, fire hydrants and

sprinkler systems, emergency access, and other fire safety requirements. The internal on-site drive aisles would serve as fire access lanes and would be designed to meet AFPD access width and turnaround requirements pursuant to the City's Fire Code.

Development of the proposed project would comply with all applicable code and ordinance requirements including, but not limited to, access, water mains, fire flows, and fire hydrants. In addition, the proposed project would be required to pay all applicable Development Impact Mitigation Fees (DIFs), for police facilities, fire facilities, park facilities, administration facilities, and public works facilities, as outlined in Municipal Code Chapter 15.06. Therefore, the project's potential impacts on public services pertaining to fire protection services would be less than significant, and no mitigation measures are required.

Police protection?

Less Than Significant Impact. The Amador County Sheriff's Office (ACSO) provides a full range of law enforcement services within three Divisions, the Administration Division, Corrections Division, and Operations Division. The ACSO headquarters is located at 700 Court Street in Jackson. The ACSO is responsible for the unincorporated areas of Amador County, the City of Plymouth, and the City of Amador City. The ACSO currently has approximately 27 deputies assigned to the Patrol Bureau, and patrols within the County are organized in a beat system for strategic deployment. The project site is located approximately 10 miles north of the ACSO office in Jackson. Traffic enforcement is provided in this area of Amador County by the California Highway Patrol, in partnership with the ACSO and local police departments in other cities within Amador County.

Emergency access to the site by law enforcement/security vehicles is not anticipated to be impeded. On-site emergency access to structures would be in compliance with applicable codes, ordinances, and standard conditions, including the current edition of the California Fire Code. The proposed project would be located on a partially disturbed site and includes a commercial development that would be subject to City standards and regulations. The proposed project does not include residential development and would not induce any unplanned population growth. Police protection services required at the project site would be similar to existing conditions at 18725 Highway 49. Incremental demand on behalf of the project for law enforcement protection services is not anticipated to affect ACSO response times to the project site or surrounding area. The proposed project is also not anticipated to generate the need for new deputies, nor would it require construction of new or physically altered police protection facilities to maintain an adequate level of service to the project site and surrounding areas. Additionally, the ACSO has reviewed the project plans and did not express concern regarding the size of the project and related service demands.[38] Implementation of the proposed project would not require new or physically altered ACSO facilities that would cause significant environmental impacts.

The proposed project would comply with all applicable codes, ordinances, and requirements related to safety and payment of DIFs. In accordance with Chapter 15.06, Development Impact Fees, of the City's Municipal Code, the Project Applicant would pay the applicable police facility fee prior to issuance of a building permit. Compliance with City regulations and payment of DIFs would reduce project impacts on law enforcement protection services. Therefore, the project's potential impacts pertaining to police protection services would be less than significant and no mitigation measures are required.

Schools?

Less Than Significant Impact. The Amador County Unified School District (ACUSD) serves approximately 4,000 students in 11 public comprehensive high schools, junior high schools, elementary schools, and one alternative high school within the County. The district also offers an independent study program. The proposed project would not involve development of a residential component that would result in a direct increase/generation of population, such that would increase demand on the existing school system in the area. It is anticipated that the 12 to 15 new jobs provided by the proposed project would be occupied by people from the surrounding area and would not generate significant relocation to the city. It is not expected that schools in the vicinity of the project site would be impacted by increased demand during construction and operation of the proposed

[38] Written communication. ACSO to City of Plymouth. February 1, 2024.

project. The proposed project would be required to pay DIFs to the ACUSD as provided under Section 17620 of the California Education Code and Section 65996 of the California Government Code; the rate for commercial development is $0.78 per square foot. Payment of fees in compliance with Government Code Section 65996 fully mitigates all impacts to school facilities. Thus, impacts to schools would be less than significant, and no mitigation measures are required.

Parks?

Less Than Significant Impact. Parks and Recreational facilities in the City of Plymouth fall under the jurisdiction of the Amador County Recreation Agency (ACRA). The proposed project does not involve the development of new residential uses or include a housing component that would result in a direct increase/generation of population, and thus, would not increase demand for parks and use of existing parks and recreational facilities serving the city.

The project applicant would be required to pay all applicable DIFs, including park facilities, as outlined in Chapter 15.06 of the City's Municipal Code. Given the nominal increase in population and payment of park fees, the potential impact pertaining to increased demand for parks and use of existing parks would be less than significant, and no mitigation measures are required.

Other public facilities?

Less Than Significant Impact. The Plymouth Branch Library is part of the Amador County Library. The Plymouth Branch provides library services in the City of Plymouth and is located at 9369 Main Street. This library has books and media collections for children, teens, and adults. Library members are also able to access other nearby Amador County Libraries, and members of the Plymouth Branch have access to the resources of the entire Amador County Library system.[39]

The proposed project does not include a residential component that would increase/generate population, such that would result in increased demand on the existing libraries serving the city. The proposed project would not result in construction of new or physically altered library facilities. Additionally, the Project Applicant would be required to pay DIFs, including library facilities, as outlined in Chapter 15.06 of the Plymouth Municipal Code, to offset demand on local government services. There would be less than significant impacts, and no mitigation measures are required.

Regulatory Requirements

State

California Education Code Section 17620

The Project Applicant shall pay the applicable school development fee to the Amador County Unified School District, in accordance with Section 17620 of the California Education Code.

Local

City of Plymouth Municipal Code

Pursuant to Chapter 15.06, Development Impact Fees, of the City's Municipal Code, prior to issuance of each building permit, the Project Applicant shall be responsible for payment of the City's Development Impact Fees (DIFs) including wastewater treatment and collection facilities, water facilities, law enforcement facilities and equipment, fire facilities, park and recreation facilities, library facilities, drainage facilities, administrative facilities, museum facilities, streets, and corporation yard facilities, as appropriate and in amounts established by City Council Resolution. The fees paid shall be those in effect at the time of issuance of the building permit.

[39] Amador County California. 2018. "Library Locations." Accessed 18 October 2023. https://www.amadorgov.org/departments/library/library-branches-hours-and-location.

Mitigation Measures

Project implementation would not result in significant impacts related to public services; therefore, no mitigation measures are required.

4.16 Recreation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Impact Analysis

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. The City of Plymouth is a member of the Amador County Recreation Agency (ACRA), a joint powers authority that provides recreational facilities and youth and adult programs throughout the County.

The proposed project does not involve the development of new residential uses or include a housing component that would result in a direct population growth, and thus, would not increase demand on existing parks and recreational uses serving the city. However, the proposed project would generate a relatively small number of employees including short-term construction workers and long-term employees. Therefore, it is not expected that parks and recreation facilities within the vicinity of the proposed project site would be impacted by development and operation of the gas station, car wash, and convenience store.

Additionally, the project would not result in the need for new or physically altered recreational facilities. Therefore, no significant impacts pertaining to the use of existing parks causing their deterioration would occur. The Project Applicant would be responsible for paying park facilities impact fees for the development of new or expanded park facilities in the city, pursuant to Chapter 15.06 of the Municipal Code. Impacts would be less than significant, and no mitigation measures are required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

No Impact. As described above, the proposed project would not involve the development of new residential uses or include a housing component that would result in a direct population growth, and thus, would not increase demand on the existing parks and recreational uses serving the city. Additionally, the proposed use is a commercial mixed-use development consisting of a car wash, gas station, and convenience store, and the project does not include recreational facilities, nor does it require construction or expansion of recreational facilities. No impacts would occur, and no mitigation measures are required.

Regulatory Requirements

Local

City of Plymouth Municipal Code

Pursuant to Chapter 15.06, Development Impact Fees, of the City's Municipal Code, prior to issuance of each building permit, the Project Applicant shall be responsible for payment of the City's Development Impact Fees (DIFs) including wastewater treatment and collection facilities, water facilities, law enforcement facilities and equipment, fire facilities, park and recreation facilities, library facilities, drainage facilities, administrative facilities, museum facilities, streets, and corporation yard facilities, as appropriate and in amounts established by City Council Resolution. The fees paid shall be those in effect at the time of issuance of the building permit.

Mitigation Measures

Project implementation would not result in significant impacts related to recreation; therefore, no mitigation measures are required.

4.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Environmental Setting

The Transportation section is based upon the Plymouth ARCO Gas Station Project Transportation Study (TS), prepared by MAT Engineering Inc., dated October 4, 2024, and included in Appendix G. The TS was prepared to determine the amount of traffic expected to be added to the adjacent roadway network due to the project and identify any improvements necessary to mitigate the impacts of any additional traffic. To complete this determination, MAT Engineering analyzed the following transportation-related elements for the proposed project:

- Forecast delay and level of service (LOS) operations of the study area and the potential effect of the project trips on the surrounding circulation system based on the City of Plymouth adopted and established performance criteria and requirements
- Forecast vehicular queuing operations of the study area and the potential effect of the project trips on the surrounding circulation system
- Evaluation of turning maneuvers for fuel trucks at the project driveway
- Evaluation of sight distance at project site driveways
- Evaluation of traffic collision pattern history in the project site vicinity and study area
- Qualitative review and discussion of site's circulation; and
- Evaluation of the project for Vehicle Miles Traveled (VMT) as required by the California Environmental Quality Act (CEQA)

Access for the site is shared with adjacent parcels and uses which consist of the Plymouth Trading Post and the Fig Barn. Hence, currently, the project site takes access via the following existing three driveways:

- One existing full access unsignalized driveway along Main Street; and
- Two existing full access unsignalized driveways along State Route (SR) 49

With implementation of the proposed project, the two driveways along State Route (SR) 49 will be consolidated and the existing southerly driveway for the site on State Route (SR) 49 will be eliminated. Hence, with the implementation of the proposed project, access for the site will continue to be shared with adjacent parcels and uses and the project is planned to take access via the following two driveways:

- One existing full access unsignalized driveway along Main Street; and
- One existing full access unsignalized driveway along State Route (SR) 49

The access consolidation is generally considered to be appropriate traffic engineering and transportation planning practice since it is expected to reduce traffic friction along State Route (SR) 49 by reducing points of conflict in the vehicular as well as pedestrian traffic flow.

The proposed project is expected to open in 2025.

Study Area and Analysis Scenarios

The study area consisted of the following study intersections (refer to Exhibit 4.17-1, Study Intersection Locations):

- State Route 49 – Golden Chain Highway / Main Street
- Project Access 1 / Main Street
- State Route 49 – Golden Chain Highway / Project Access 2 (North); and
- State Route 49 – Golden Chain Highway / Project Access 3 (South)

The study evaluated the following scenarios:

- Existing (2023) Conditions
- Existing (2023) With Project Conditions
- Opening Year (2025) Without Project Conditions; and
- Opening Year (2025) With Project Conditions

The analysis evaluated level of service operations of the study intersections for the weekday peak periods between 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM, when the traffic on the surrounding roadway network typically experiences its peak traffic activity.

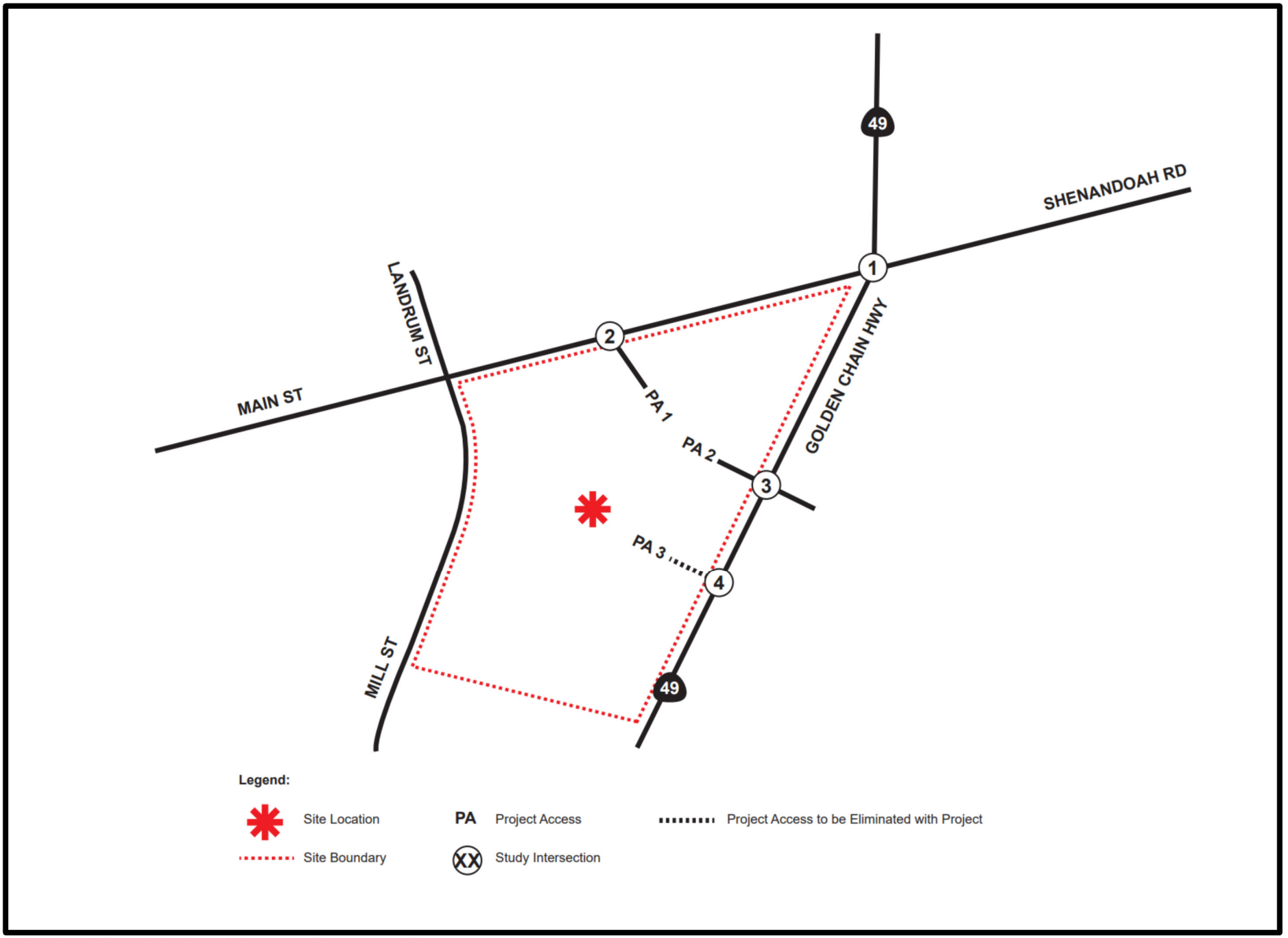
Analysis Methodologies, Performance Criteria, and Thresholds

Intersection Peak Hour Level of Service Analysis Methodology

Level of Service (LOS) is commonly used as a description of intersection operation and is based on the capacity of the intersection and the volume of traffic using the intersection. For the purposes of this IS/MND, the following LOS discussion is for informational purposes only. The significance conclusions of this section of the IS/MND are based on VMT, as required by State CEQA Guidelines Section 15064.3.

The definitions of level of service for uninterrupted flow (flow unrestrained by the existence of traffic control devices) are:

- LOS A represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.
- LOS B is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
- LOS C is in the range of stable flow but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.
- LOS D represents high-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.
- LOS E represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
- LOS F is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations.



Data Sources: Plymouth ARCO Gas Station Project Transportation Study prepared by MAT Engineering, October 2024
Map Export: 10/21/2024 2:47 PM.

EXHIBIT 4.17-1
Study Intersection Locations

Study Intersection Methodology: HCM

The methodology used to assess the operation of the study area intersections is the Highway Capacity Manual (HCM) methodology. The Highway Capacity Manual (HCM) defines level of service (LOS) as a measure which describes operational conditions within a traffic stream, generally in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate LOS conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted.

For signalized intersections, an average control delay per vehicle is used to determine the LOS. For all-way stop controlled intersections, the LOS is also determined based on the average control delay per vehicle. For intersections with stop control on the minor street only, the calculation of LOS is dependent on the occurrence of gaps in the traffic flow of the main street, and the LOS is determined based on the worst individual movement or movements sharing a single lane of the stop-controlled movement.

The Highway Capacity Manual (HCM) methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding ranges of stopped delay experienced per vehicle for signalized and unsignalized intersections. Table 4.17-1, HCM Level of Service, shows the LOS criteria based on the HCM methodology.

Table 4.17-1
HCM Level of Service

Level of Service	Signalized (delay in seconds)	Unsignalized (delay in seconds)
A	0.00 – 10.00	0.00 – 10.00
B	10.10 – 20.00	10.01 – 15.00
C	20.10 – 35.00	15.01 – 25.00
D	35.10 – 55.00	25.01 – 35.00
E	55.10 – 80.00	35.01 – 50.00
F	>80.00	>50.00

Intersection Level of Service Performance Criteria

In accordance with the City of Plymouth General Plan Goal 4D, the acceptable level of service (LOS) operation for study intersections is LOS D or better. Table 4.17-2, Study Intersection LOS Performance Criteria, summarizes the level of performance criteria for the study intersections.

Table 4.17-2
Study Intersection LOS Performance Criteria

#	Study Intersection (North-South / East-West)	Traffic Control Type	LOS Performance Criteria
1	State Route 49 – Golden Chain Highway/Main Street	Roundabout	D or better
2	Project Access 1/Main Street	Unsignalized	D or better
3	State Route 49 – Golden Chain Highway/Project Access 2 (North)	Unsignalized	D or better
4	State Route 49 – Golden Chain Highway/Project Access 3 (South)*	Unsignalized	D or better

*This existing access driveway is planned to be eliminated by the proposed project.

Vehicular Queuing Analysis Methodology and Performance Criteria

The methodology utilized to evaluate the vehicular queues is the Highway Capacity Manual (HCM) 95th percentile methodology. This study utilizes the following criteria for evaluating vehicular queues:

- If the vehicular queue for a lane on a public roadway exceeds the capacity of the turn lane and results in a spillover of the queue onto the upstream major intersection or onto the adjacent through travel lane, improvements need to be identified to avoid the queue spillover onto the upstream major intersection or adjacent through travel lane.

Existing Traffic Controls and Intersection Geometrics

Exhibit 4.17-2, Existing Study Intersection Lane Geometry and Traffic Control, identifies the existing roadway conditions for the study area intersections. The number of traffic lanes and the existing intersection controls are identified.

- State Route 49 is a two-lane north-south undivided rural State Highway (SR 49). It has a posted speed limit of 40 miles per hour (MPH) and has pockets of residential and commercial uses to the east and west.
- Main Street is a two-lane east-west local street beginning approximately 2,900 feet west of the traffic circle and ending at the traffic circle. It is generally developed with commercial and residential uses.

Existing Traffic Volumes

Existing Conditions intersection level of service calculations are based upon manual AM and PM peak hour turning movement counts taken in June 2023 during typical conditions when schools were in session. The study evaluates the weekday peak periods between 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM, when the traffic on the surrounding roadway network typically experiences its peak traffic activity. The AM peak hour traffic volumes were determined by counting the two-hour period between 7:00 AM and 9:00 AM. Similarly, the PM peak hour traffic volumes were identified by counting the two-hour period between 4:00 PM and 6:00 PM. Exhibit 4.17-3, Existing Conditions Traffic Volumes, shows the existing traffic volumes at the study intersections. The traffic count worksheets are included in Appendix G.

Impact Analysis

a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

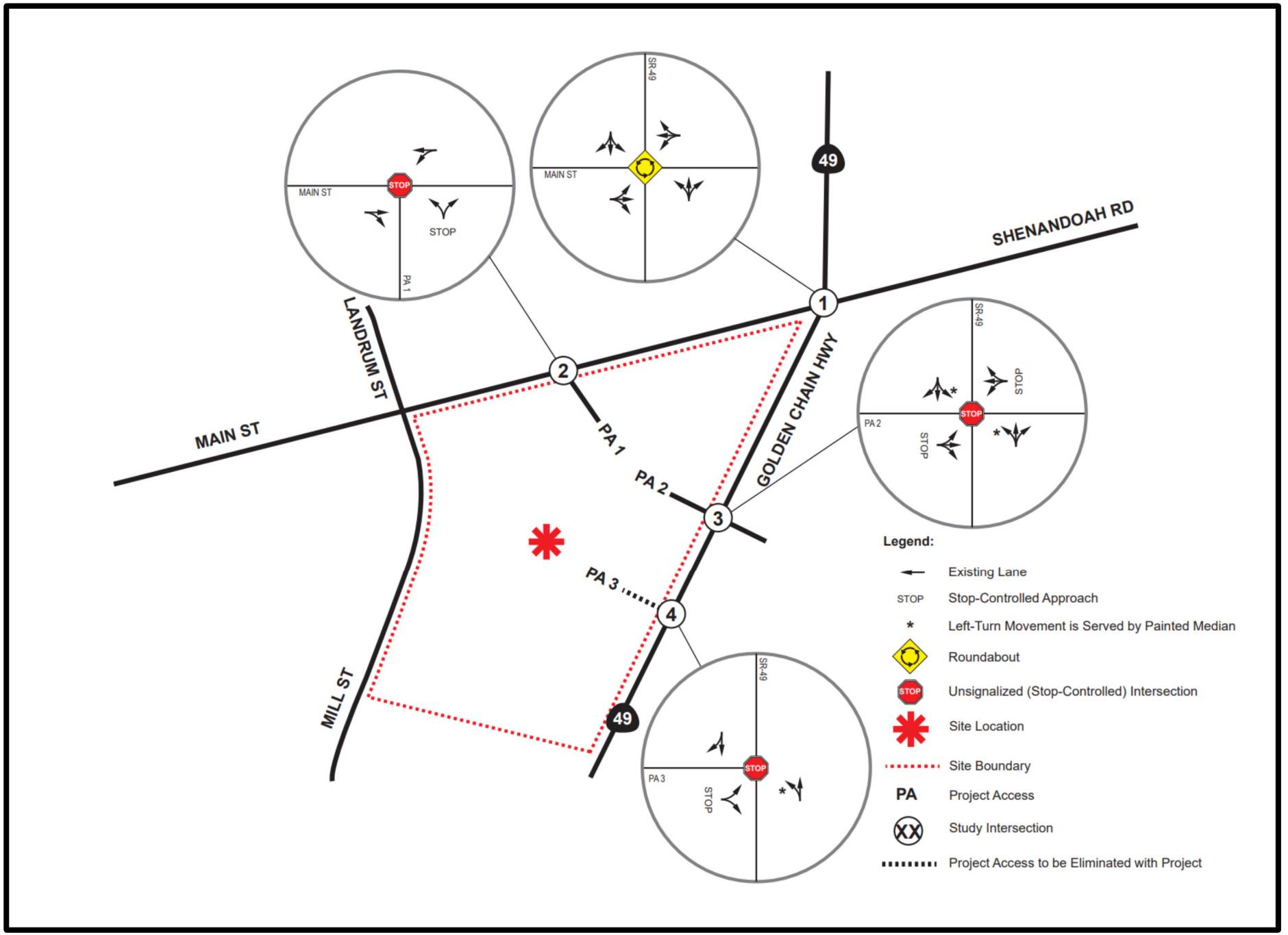
Less Than Significant Impact.

Projected Traffic Volumes

Project Traffic Conditions

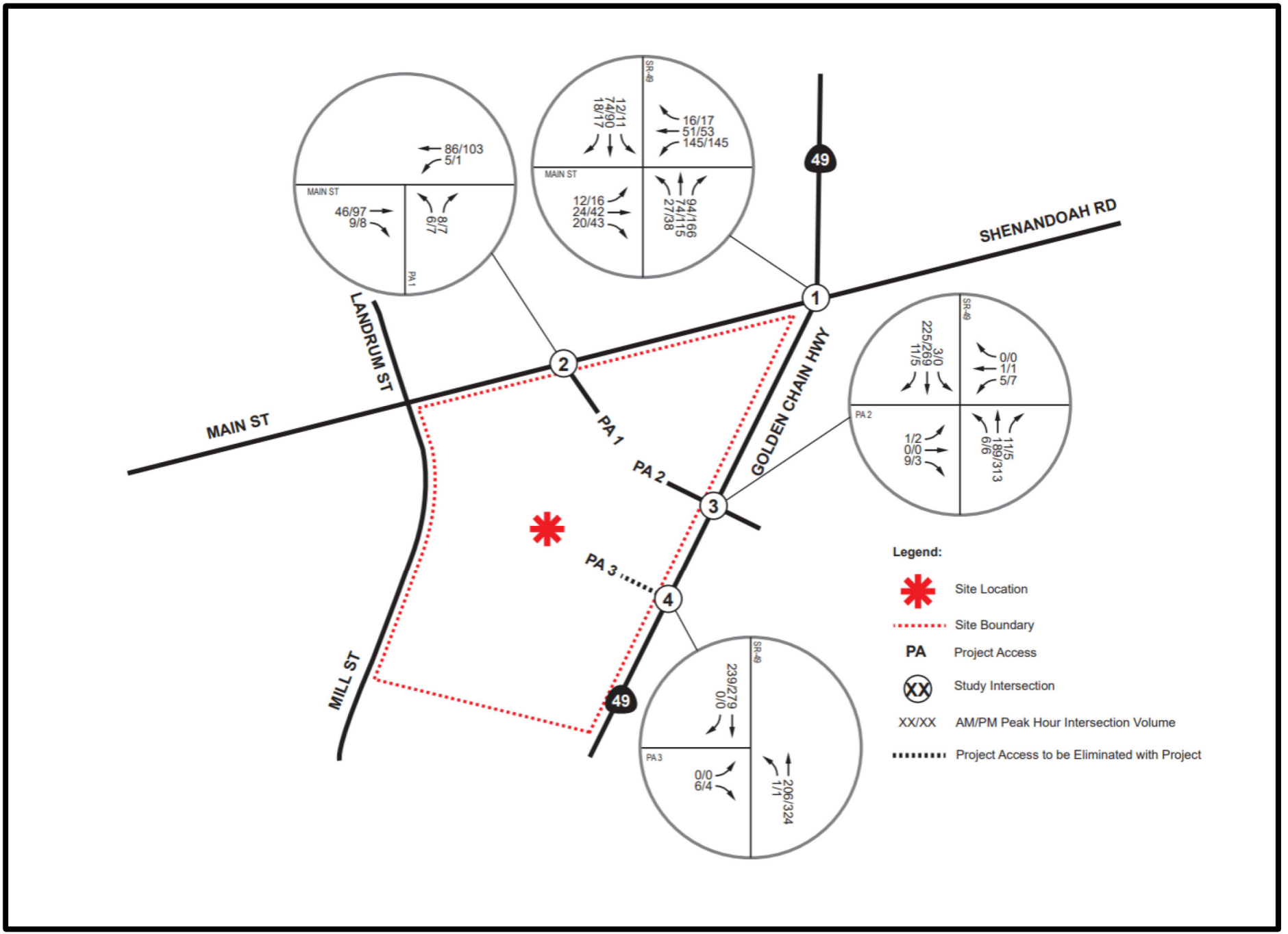
Project Trip Generation

Trip generation represents the amount of traffic that is attracted and produced by a development. The trip generation for the project is based upon the specific land uses that have been planned for the development. Trip generation rates for the proposed project and land uses are shown in Table 4.17-3, ITE Trip Generation Rates for Proposed Project, and are based on the Institute of Transportation Engineers (ITE) Trip Generation, 11th Edition, 2021. This publication provides a comprehensive evaluation of trip generation rates for a variety of land uses.



Data Sources: Plymouth ARCO Gas Station Project Transportation Study prepared by MAT Engineering, October 2024
Map Export: 10/21/2024 2:46 PM.

EXHIBIT 4.17-2
Existing Study Intersection Lane Geometry & Traffic Control



Data Sources: Plymouth ARCO Gas Station Project Transportation Study prepared by MAT Engineering, October 2024
Map Export: 10/21/2024 2:46 PM.

EXHIBIT 4.17-3
Existing Conditions Traffic Volumes

Table 4.17-3
ITE Trip Generation Rates for Proposed Project

Land Use	ITE Code	Units	Peak Hour						Daily
			AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Convenience Store & Gas Station*	945	VFP	8.03	8.03	16.06	9.21	9.21	18.42	265.12
Automated Car Wash**	948	Tunnels	38.75	38.75	77.50	38.75	38.75	77.50	775.00

Source: 2021 ITE 11th Edition Trip Generation Manual
Notes: VFP = Vehicle Fueling Positions
* * Per ITE, data shown is for gas station with a convenience store of between 2,000 and 4,000 square feet in size
** In the absence of AM peak hour data from ITE, the analysis conservatively utilizes the PM peak hour data for AM peak hour.

Utilizing the ITE trip generation rates shown in Table 4.17-3, Table 4.17-4 below summarizes the daily and peak hour trip generation for the proposed project.

Table 4.17-4
Trip Generation Summary of Proposed Project

Land Use	Quantity	Units	ITE Code	Peak Hour						Daily
				AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Convenience Store & Gas Station	12	VFP	945	96	97	193	111	110	221	3,181
Internal Capture (10%)				-10	-10	-19	-11	-11	-22	-318
Subtotal After Internal Capture				*86*	*87*	*174*	*100*	*99*	*199*	*2,863*
ITE Pass-by (62% AM Peak Hour & 56% PM Peak Hour, 59% Daily)*				-53	-54	-108	-56	-55	-111	-1,689
Subtotal After Pass-by Adjustment				*33*	*33*	*66*	*44*	*44*	*88*	*1,174*
Automated Car Wash	1	Tunnels	948	39	39	78	39	39	78	775
Internal Capture (10%)				-4	-4	-8	-4	-4	-8	-78
Subtotal After Internal Capture				*35*	*35*	*70*	*35*	*35*	*70*	*697*
Total (Without Pass-By Adjustment) **				**121**	**122**	**244**	**135**	**134**	**269**	**3,560**
Total (After Pass-by Adjustment)				**68**	**68**	**136**	**79**	**79**	**158**	**1,871**

Notes: Trip Generation Source: 2021 ITE 11 Edition Trip Generation Manual; VFP = Vehicle Fueling Positions
* Daily pass-by adjustment is based on the average between AM and PM.
** The analysis utilizes the total trip generation without pass-by adjustment for the project driveways and intersections in the immediate vicinity of the project site.

As shown in Table 4.17-4, based on ITE trip generation rates, the proposed project is expected to generate approximately 3,560 daily trips, which includes approximately 244 AM peak hour trips and approximately 269 PM peak hour trips. Pass-by trips are trips that are already traveling on the roadway system and stop at nearby commercial uses such as gas stations. Pass-by trips are therefore not considered new trips generated by a commercial land use. Naturally, a large portion of gas station trips are considered pass-by trips.

As also shown in Table 4.17-4, after accounting for the ITE-recommended pass-by adjustments, the proposed project is expected to generate approximately 1,871 daily trips, which includes approximately 136 AM peak hour trips and approximately 158 PM peak hour trips.

It should be noted, this analysis does not account for the pass-by reductions shown in Table 4.17-4, since site access driveways and intersections in the immediate vicinity of a project site (SR 49 / Main Street) could experience the full trip generation of the project.

Project Trip Distribution

Trip distribution represents the directional orientation of traffic to and from the project site. Trip distribution is heavily influenced by the geographical location of the site, the location of residential, employment and recreational opportunities, and the proximity to the regional freeway system. The directional orientation of traffic was determined by evaluating existing and proposed land uses, and highways within the community and existing traffic volumes. Exhibit 4.17-4, Project Forecast Percent Trip Distribution, shows the forecast percent trip distribution for the proposed project.

Project Traffic Volumes

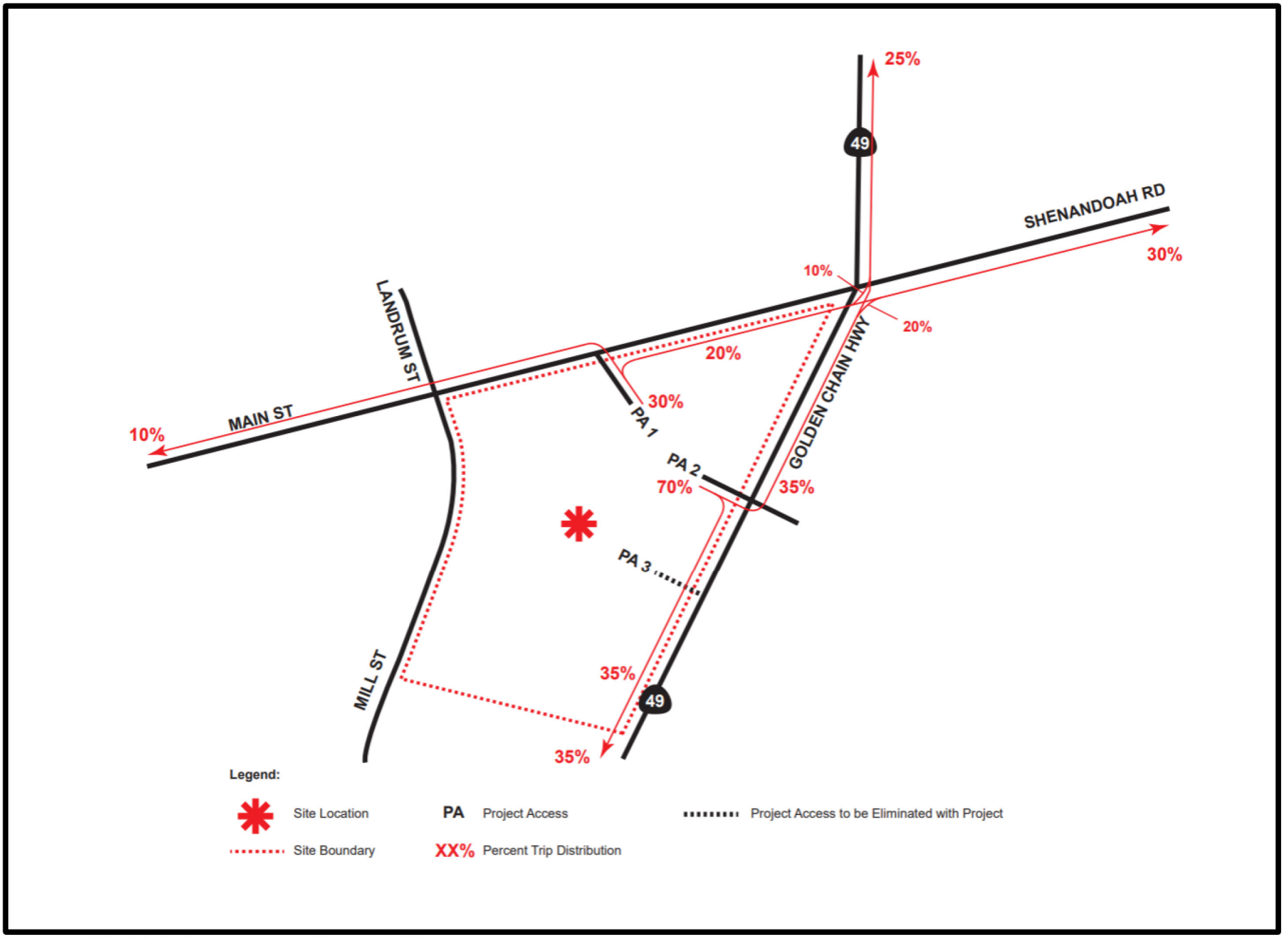
The assignment of traffic from the project site to the adjoining roadway system was based upon the project's trip generation, trip distribution, and proposed arterial highway and local street systems that the traffic study assumed would be in place by the time of initial occupancy of the site. Exhibit 4.17-5, Project Traffic Volumes, shows the project traffic volumes. As previously noted, this analysis does not account for the pass-by reductions shown in Table 4.17-4.

Background Traffic

Project opening year (2025) background traffic volumes are derived by applying an annual growth rate of 6.75 percent per year to the existing (2023) traffic volumes previously shown in Exhibit 4.17-3. This annual growth rate is based on review of historical traffic count data and patterns published by Caltrans along SR 49 in the project site vicinity and Main Street.

Cumulative Developments Traffic

Information on cumulative projects in the vicinity of the study area has been provided by City of Plymouth staff for inclusion in this analysis. Exhibit H in Appendix G shows the location of the cumulative projects. Table 4.17-5, Cumulative Projects Trip Generation Summary, shows the trip generation of the cumulative projects based on corresponding ITE trip generation rates and available traffic studies which have been prepared for these projects.



Data Sources: Plymouth ARCO Gas Station Project Transportation Study prepared by MAT Engineering, October 2024
Map Export: 10/21/2024 2:45 PM.

EXHIBIT 4.17-4
Project Forecast Percent Trip Distribution

Table 4.17-5
Cumulative Projects Trip Generation Summary

#	Cumulative Project	Location	Land Use	Quantity	Units	ITE Code	Peak Hour						Daily
							AM Peak Hour			PM Peak Hour			
							In	Out	Total	In	Out	Total	
1	Greilich Ranch*	Southwest City Boundary	Single Family Residential & RV Resort	214 RV Sites & 234 Homes	N/A	N/A	60	144	204	180	112	292	3,094
2	Hotel**	9702 Main Street	General Light Industrial	88	Rooms	310	23	17	40	26	26	52	703
Total Cumulative Projects Trip Generation							**83**	**161**	**244**	**106**	**138**	**344**	**3,797**

Notes:

* Trip generation is based on *Greilich Ranch Subdivision & 49er Village RV Resort Expansion Project Draft Transportation Analysis (Fehr & Peers, April 4, 2023).*

** Trip Generation Source: 2021 ITE 11 Edition Trip Generation Manual.

Cumulative projects traffic volumes are shown in Exhibit I in Appendix G. Some of the cumulative projects may change in scope and/or may not be open and generating trips by the opening year (2025) of the proposed project. In addition, many of the cumulative projects will be subject to a variety of improvement measures that would reduce the potential trip generation associated with those projects or the capacity of the roadway network. However, those potential improvement measures have not been taken into account in projecting the trip generation of the related projects or the capacity of the study roadway system.

Existing With Project Conditions Traffic Volumes

Existing (2023) With Project Conditions traffic volumes were derived by adding project-generated traffic volumes shown in Exhibit 4.17-5 to the existing traffic volumes shown in Exhibit 4.17-3. Existing (2023) With Project Conditions traffic volumes are shown in Exhibit 4.17-6, Existing Plus Project Conditions Traffic Volumes.

Additionally, as previously noted, with implementation of the proposed project, the two driveways along State Route (SR) 49 will be consolidated and the existing southerly driveway for the site on State Route (SR) 49 will be eliminated. Therefore, with implementation of the proposed project, all of the existing traffic utilizing the southerly driveway will be shifted to the northerly driveway.

Opening Year Without Project Conditions Traffic Volumes

Opening Year (2025) Without Project Conditions traffic volumes consists of the summation of the existing (2023) traffic volume shown in Exhibit 4.17-3 after application of an annual growth rate of 6.75 percent per year over a two-year period and the traffic generated by the cumulative projects shown in Exhibit I in Appendix G. Opening Year (2025) Without Project Conditions traffic volumes are shown in Exhibit 4.17-7, Opening Year Without Project Conditions Traffic Volumes.

Opening Year With Project Conditions Traffic Volumes

Opening Year (2025) With Project Conditions traffic volumes consists of the summation of the Opening Year (2025) Without Project Conditions traffic volumes shown in Exhibit 4.17-7 and project- generated traffic shown in Exhibit 4.17-5. Opening Year (2025) With Project Conditions traffic volumes are shown in Exhibit 4.17-8, Opening Year With Project Conditions Traffic Volumes.

Additionally, as previously noted, with implementation of the proposed project, the two driveways along State Route (SR) 49 will be consolidated and the existing southerly driveway for the site on State Route (SR) 49 will be

eliminated. Therefore, with implementation of the proposed project, all of the existing traffic utilizing the southerly driveway will be shifted to the northerly driveway.

Level of Service Analysis

For the purposes of this IS/MND, the following LOS discussion is for informational purposes only. The significance conclusions of this section of the IS/MND are based on VMT, as required by State CEQA Guidelines Section 15064.3.

Existing Conditions Level of Service

Existing (2023) Conditions Level of Service (LOS) calculations for the study intersections are shown in Table 4.17-6 and are based upon the Existing (2023) Conditions peak hour turning movement volumes shown in Exhibit 4.17-3 and the existing geometry shown in Exhibit 4.17-2.

Table 4.17-6
Existing (2023) Conditions Study Intersection Peak Hour LOS Analysis Summary

#	Study Intersection (North-South/East-West)	Traffic Control Type	Analysis Methodology	LOS Standard	Existing (2023) Conditions			
					AM Peak Hour		PM Peak Hour	
					Delay	LOS	Delay	LOS
1	State Route 49 – Golden Chain Highway/Main Street	RAB	HCM	D or better	4.5	A	4.9	A
2	Project Access 1/Main Street	CSS	HCM	D or better	9.0	A	9.4	A
3	State Route 49 – Golden Chain Highway/Project Access 2 (North)	CSS	HCM	D or better	12.8	B	14.5	B
4	State Route 49 – Golden Chain Highway/Project Access 3 (South)	CSS	HCM	D or better	9.7	A	9.9	A

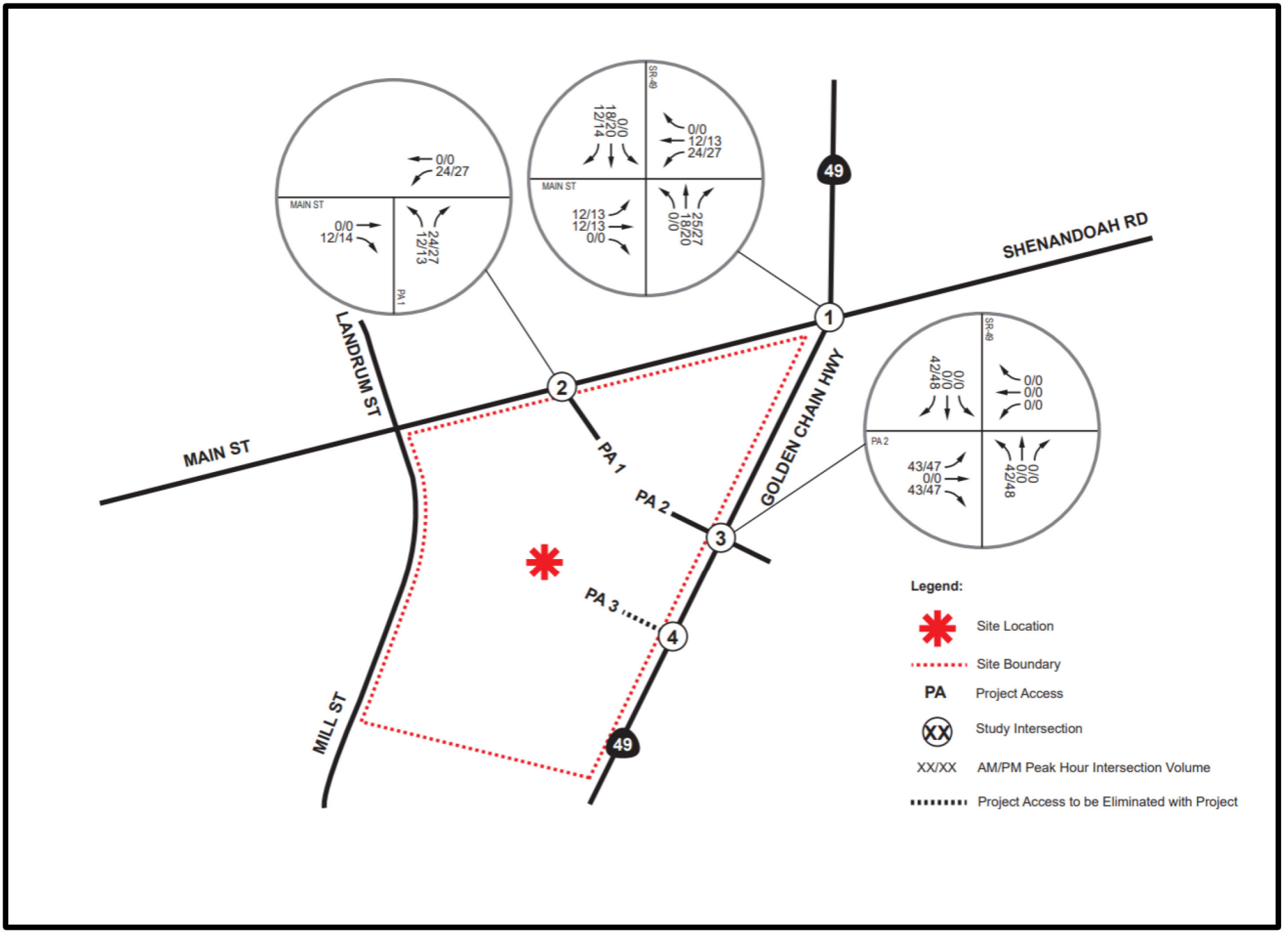
Notes: Intersection Analysis Methodology: HCM (Highway Capacity Manual) 6Edition methodology based on delay (shown and reported in seconds) utilizing Synchro Version 11 analysis software.

RAB = Roundabout; CSS = Cross-Street Stop

As shown in Table 4.17-6, all study area intersections operate at an acceptable level of service during the peak hours for Existing (2023) Conditions. Detailed LOS analysis sheets for Existing (2023) Conditions are contained in Appendix G.

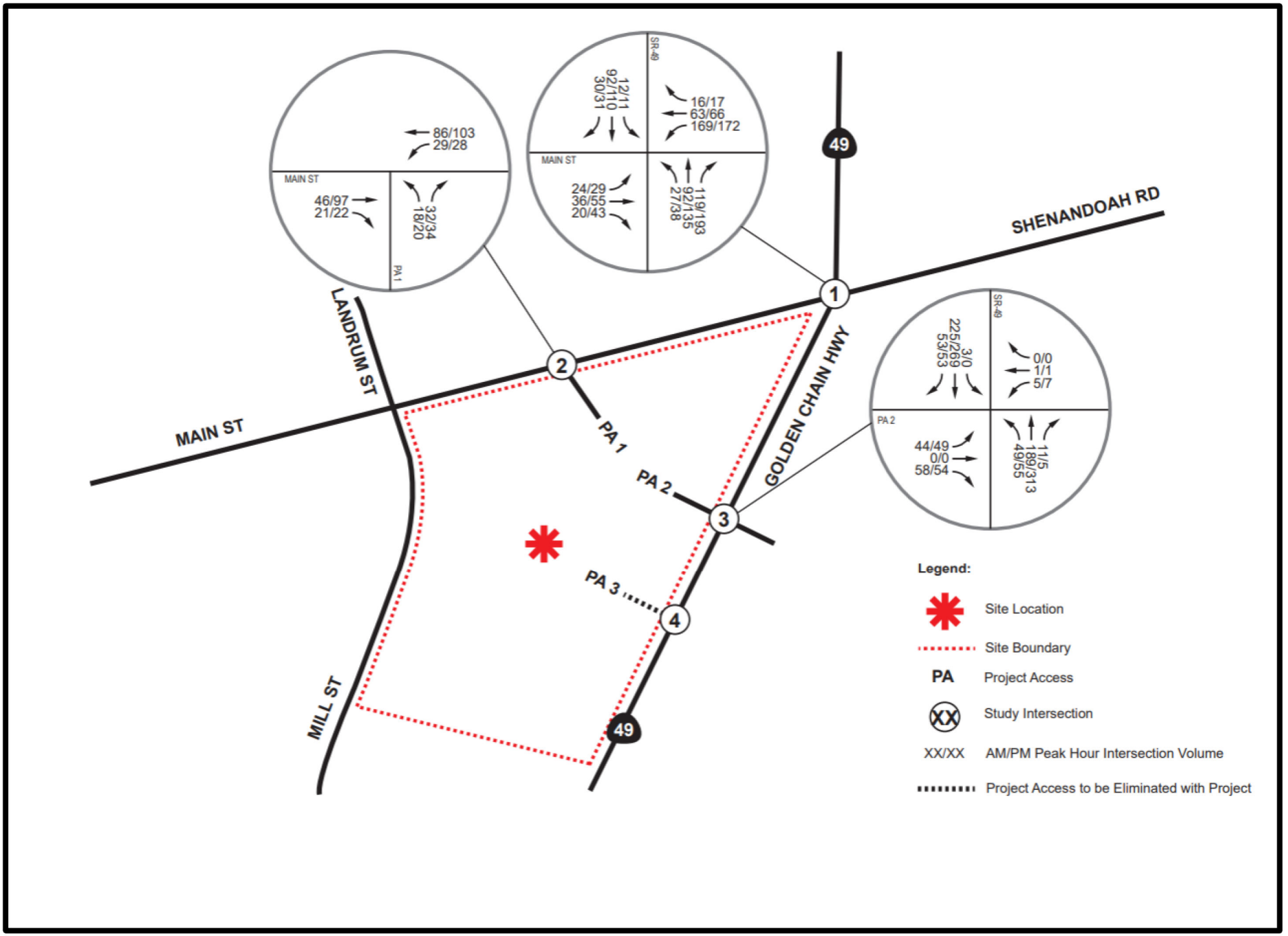
Existing With Project Conditions Level of Service

Existing (2023) With Project Conditions Level of Service (LOS) calculations for the study intersections are shown in Table 4.17-7 and are based upon the Existing (2023) With Project Conditions peak hour turning movement volumes shown in Exhibit 4.17-6 and the existing geometry shown in Exhibit 4.17-2.



Data Sources: Plymouth ARCO Gas Station Project Transportation Study prepared by MAT Engineering, October 2024
Map Export: 10/21/2024 2:44 PM.

EXHIBIT 4.17-5
Project Traffic Volumes



Data Sources: Plymouth ARCO Gas Station Project Transportation Study prepared by MAT Engineering, October 2024
Map Export: 10/21/2024 2:44 PM.

EXHIBIT 4.17-6
Existing Plus Project Conditions Traffic Volumes

Table 4.17-7
Existing (2023) With Project Conditions Study Intersection Peak Hour LOS Analysis Summary

#	Study Intersection (North-South/ East-West)	Traffic Control Type	Analysis Methodology	LOS Standard	Existing (2023) Conditions				Existing (2023) With Project Conditions				Requires Improvement?	
					AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
					Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	AM	PM
1	State Route 49 – Golden Chain Highway/ Main Street	RAB	HCM	D or better	4.5	A	4.9	A	5.1	A	5.5	A	No	No
2	Project Access 1/ Main Street	CSS	HCM	D or better	9.0	A	9.4	A	9.4	A	9.8	A	No	No
3	State Route 49 – Golden Chain Highway/ Project Access 2 (North)	CSS	HCM	D or better	12.8	B	14.5	B	15.8	C	18.7	C	No	No
4	State Route 49 – Golden Chain Highway/ Project Access 3 (South)	CSS	HCM	D or better	9.7	A	9.9	A	N/A*	N/A*	N/A*	N/A*	No	No

Notes: Intersection Analysis Methodology: HCM (Highway Capacity Manual) 6 Edition methodology based on delay (shown and reported in seconds) utilizing Synchro Version 11 analysis software.

RAB = Roundabout; CSS = Cross-Street Stop

N/A = Not applicable

*This existing access driveway is planned to be eliminated by the proposed project.

As shown in Table 4.17-7, all study area intersections are forecast to continue to operate at an acceptable level of service during the peak hours for Existing (2023) With Project Conditions. The highest level of service that would be reached would be LOS C, which is well within the acceptable levels designated by the City of Plymouth. Only the intersections at SR 49 / Project Access 2 (North) and SR 49 / Project Access 3 (South) would see a slight decrease in level of service. As also shown in Table 4.17-7, based on the agency-established performance criteria, no study intersection improvements are required for Existing (2023) With Project Conditions. Detailed LOS analysis sheets for Existing (2023) With Project Conditions are contained in Appendix G.

Opening Year Without Project Conditions Level of Service

Opening Year (2025) Without Project Conditions Level of Service (LOS) calculations for the study intersections are shown in Table 4.17-8 and are based upon the Opening Year (2025) Without Project Conditions peak hour turning movement volumes shown in Exhibit 4.17-7 and the existing geometry shown in Exhibit 4.17-2.

Table 4.17-8
Opening Year (2025) Without Project Conditions Study Intersection Peak Hour LOS Analysis Summary

#	Study Intersection (North-South/East-West)	Traffic Control Type	Analysis Methodology	LOS Standard	Opening Year (2025) Without Project Conditions			
					AM Peak Hour		PM Peak Hour	
					Delay	LOS	Delay	LOS
1	State Route 49 – Golden Chain Highway/Main Street	RAB	HCM	D or better	5.3	A	5.8	A
2	Project Access 1/Main Street	CSS	HCM	D or better	9.3	A	9.8	A
3	State Route 49 – Golden Chain Highway/Project Access 2 (North)	CSS	HCM	D or better	14.5	B	17.4	C
4	State Route 49 – Golden Chain Highway/Project Access 3 (South)	CSS	HCM	D or better	10.1	B	10.5	B

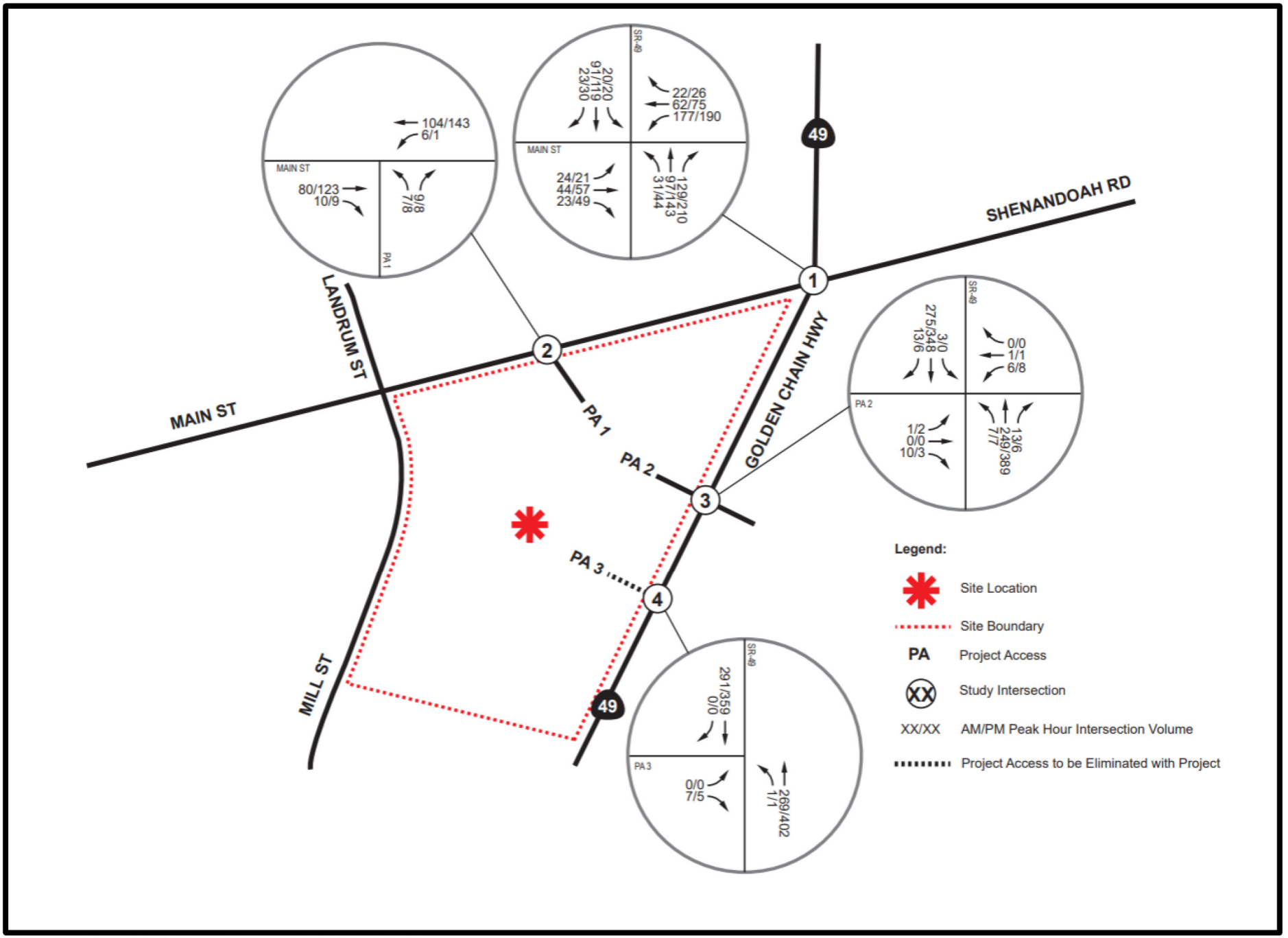
Notes: Intersection Analysis Methodology: HCM (Highway Capacity Manual) 6 Edition methodology based on delay (shown and reported in seconds) utilizing Synchro Version 11 analysis software.

RAB = Roundabout; CSS = Cross-Street Stop

As shown in Table 4.17-8, all study area intersections are forecast to continue to operate at an acceptable level of service during the peak hours for Opening Year (2025) Without Project Conditions. Detailed LOS analysis sheets for Opening Year (2025) Without Project Conditions are contained in Appendix G.

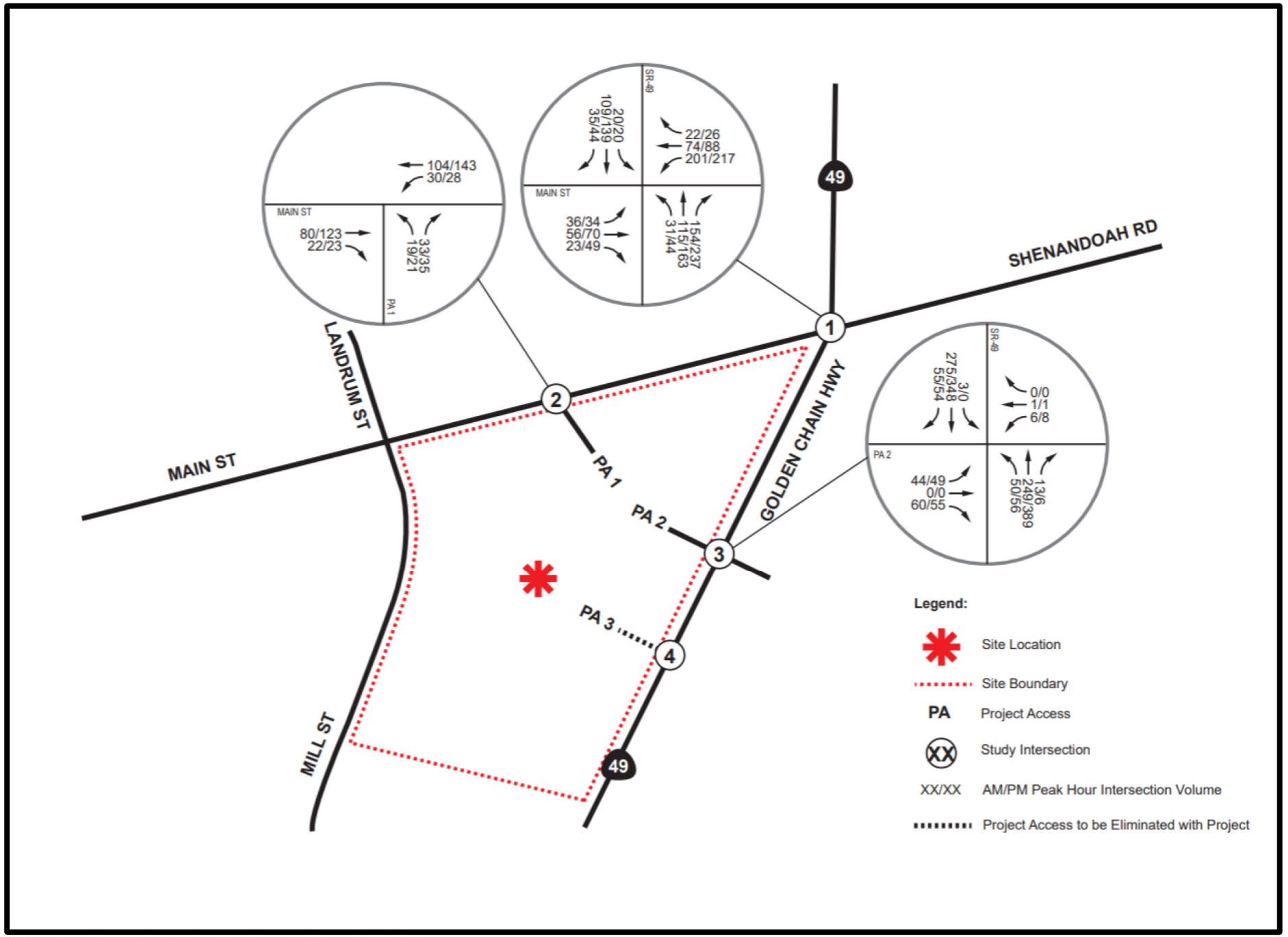
Opening Year With Project Conditions Level of Service

Opening Year (2025) With Project Conditions Level of Service (LOS) calculations for the study intersections are shown in Table 4.17-9 and are based upon the Opening Year (2025) With Project Conditions peak hour turning movement volumes shown in Exhibit 4.17-8 and the existing geometry shown in Exhibit 4.17-2.



Data Sources: Plymouth ARCO Gas Station Project Transportation Study prepared by MAT Engineering, October 2024
Map Export: 10/21/2024 2:43 PM.

EXHIBIT 4.17-7
Opening Year Without Project Conditions Traffic Volumes



Data Sources: Plymouth ARCO Gas Station Project Transportation Study prepared by MAT Engineering, October 2024
Map Export: 10/21/2024 2:43 PM.

EXHIBIT 4.17-8
Opening Year With Project Conditions Traffic Volumes

Table 4.17-9
Opening Year (2025) With Project Conditions Study Intersection Peak Hour LOS Analysis Summary

#	Study Intersection (North-South / East-West)	Traffic Control Type	Analysis Methodology	LOS Standard	Opening Year (2025) Without Project Conditions				Opening Year (2025) With Project Conditions				Requires Improvement?	
					AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
					Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	AM	PM
1	State Route 49 – Golden Chain Highway/ Main Street	RAB	HCM	D or better	5.3	A	5.8	A	6.0	A	6.5	A	No	No
2	Project Access 1/Main Street	CSS	HCM	D or better	9.3	A	9.8	A	9.7	A	10.2	B	No	No
3	State Route 49 – Golden Chain Highway/ Project Access 2 (North)	CSS	HCM	D or better	14.5	B	17.4	C	18.5	C	23.4	C	No	No
4	State Route 49 – Golden Chain Highway/ Project Access 3 (South)	CSS	HCM	D or better	10.1	B	10.5	B	N/A*	N/A*	N/A*	N/A*	No	No

Notes: Intersection Analysis Methodology: HCM (Highway Capacity Manual) 6 Edition methodology based on delay (shown and reported in seconds) utilizing Synchro Version 11 analysis software.

RAB = Roundabout; CSS = Cross-Street Stop

N/A = Not applicable

*This existing access driveway is planned to be eliminated by the proposed project.

As shown in Table 4.17-9, all study area intersections are forecast to continue to operate at an acceptable level of service during the peak hours for Opening Year (2025) With Project Conditions. Development of the proposed project would decrease the level of service of the Main Street / Project Access 1 intersection slightly during PM peak hours, and the SR 49 / Project Access 2 (North) intersection slightly during AM peak hours. Therefore, the project would not significantly decrease the projected level of service conditions on the adjacent roadway network. Based on the agency-established performance criteria, no study intersection improvements are required for Opening Year (2025) With Project Conditions. Detailed LOS analysis sheets for Opening Year (2025) With Project Conditions are contained in Appendix G.

Given the results of the level-of-service and traffic volume analyses, the additional traffic associated with the proposed project is not expected to exceed the operational capacities of the adjacent roadways. All study intersections, including site driveways, are expected to operate at LOS C or better under all conditions in 2025.

The build conditions do not increase volume/capacity ratios or delays enough to change the LOS at any intersections to a less than acceptable level per City and County requirements.

The proposed project would aid in the implementation of City and County policies related to pedestrian and bicycle access by including development of a sidewalk along the project's SR 49 frontage, a bike rack capable of storing 4 bicycles, and an accessible path from the public right-of-way to the project site. The construction and operation phases of the project would be contained within the project site and subsequently would not interfere with the use of sidewalks, bike lanes, or public transit.

The proposed project would be consistent with the General Plan's goals and policies, and the proposed project is not expected to negatively affect the performance or safety of existing or planned pedestrian, bicycle, or transit facilities. Any additional changes to bicycle or pedestrian facilities would be consistent with City development standards and would be checked for compliance as part of the City's review process. Therefore, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system. Impacts would be less than significant, and no mitigation is required.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Less Than Significant Impact. Based on the latest CEQA Guidelines, projects are required to prepare a Vehicle Miles Traveled (VMT) analysis. Pursuant to Caltrans guidelines, many types of projects such as the following are considered to not have a significant impact on VMT and screen out:[40,41]

- Project located within a Transit Priority Area (TPA)
  Projects which serve the local community and have the potential to reduce VMT such as:
  - Projects generating less than 110 daily vehicle trips
  - K-12 schools
  - Local-serving retail less than 50,000 SF
  - Local parks
  - Daycare centers
  - Gas stations
  - Local serving banks
  - Student housing projects
  - Local-serving community colleges

The City has not adopted VMT guidelines. Based on research of public domain, there is no information about VMT thresholds for the Amador County adopted traffic study guidelines. The VMT analysis uses commonly utilized screening types that most agencies use and the guidelines adopted by various agencies screen out gas stations. Under Caltrans guidelines, the project screens out as a local-serving use.

Since the proposed project is a gas station with convenience store and car wash use, it screens out for VMT and therefore is found to have a less than significant VMT impact under CEQA.[42,43] No mitigation is required.

[40] California Governor's Office of Planning and Research (Now Office of Land Use and Climate Innovation). 2018. "Technical Advisory on Evaluating Transportation Impacts in CEQA." December. https://lci.ca.gov/docs/20180416-743_Technical_Advisory_4.16.18.pdf.
[41] Caltrans. 2020. Vehicle Miles Traveled- Focused Transportation Impact Study Guide. May 20. https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf.
[42] California Governor's Office of Planning and Research (Now Office of Land Use and Climate Innovation). 2018. "Technical Advisory on Evaluating Transportation Impacts in CEQA." December. https://lci.ca.gov/docs/20180416-743_Technical_Advisory_4.16.18.pdf.
[43] Caltrans. 2020. Vehicle Miles Traveled-Focused Transportation Impact Study Guide. May 20. https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact.

Vehicular Queue Analysis

The traffic analysis includes an evaluation of the forecast vehicular queuing operations of the study area and the potential effect of the project trips on the surrounding circulation system. The methodology utilized to evaluate the vehicular queues is the Highway Capacity Manual (HCM) 95th percentile methodology. This study utilizes the following criteria for evaluating vehicular queues:

- If the vehicular queue for a left-turn lane on a public roadway exceeds the capacity of the turn lane and results in a spillover of the queue onto the upstream major intersection or onto the adjacent through travel lane, improvements need to be identified to avoid the queue spillover onto the upstream major intersection or adjacent through travel lane.

Existing and Existing With Project Conditions Vehicular Queue Analysis

Existing (2023) Conditions and Existing (2023) With Project Conditions vehicular queue calculations for the study intersections are shown in Table 4.17-10 and are based upon the Existing (2023) Conditions peak hour turning movement volumes shown in Exhibit 4.17-3, Existing (2023) With Project Conditions peak hour turning movement volumes shown in Exhibit 4.17-6, and the existing geometry shown in Exhibit 4.17-2.

As shown in Table 4.17-10, based on the analysis performed for Existing (2023) Conditions and Existing (2023) With Project Conditions, adequate stacking capacity is forecast to be provided at the study intersections.

Detailed vehicular queue analysis sheets for Existing (2023) Conditions and for Existing (2023) With Project Conditions are contained in Appendix G.

Opening Year Without Project and Opening Year With Project Conditions Vehicular Queue Analysis

Opening Year (2025) Without Project Conditions and Opening Year (2025) With Project Conditions vehicular queue calculations for the study intersections are shown in Table 4.17-11 and are based upon the Opening Year (2025) Without Project Conditions peak hour turning movement volumes shown in Exhibit 4.17-7, Opening Year (2025) With Project Conditions peak hour turning movement volumes shown in Exhibit 4.17-8, and the existing geometry shown in Exhibit 4.17-2.

Table 4.17-10
Existing Conditions & Existing With Project Conditions Study Intersection Peak Hour 95th Percentile Vehicular Queuing Analysis Summary

Study Intersection (North-South/East-West)	No. of Lanes	Lane Storage Capacity (ft)	Distance to Next Major Intersection (ft)	Existing (2023) Conditions				Existing (2023) With Project Conditions				Project-Related Change				Adequate Storage Available?	
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
				Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	AM Peak Hour	PM Peak Hour
1. State Route 49 – Golden Chain Highway / Main Street																	
NB Left-Turn/ Through/Right-Turn Lane	1	156	156	195	25	319	25	238	25	366	25	43	0	47	0	Yes	Yes
SB Left-Turn/ Through/Right-Turn Lane	1	255	255	104	25	118	25	134	25	152	25	30	0	34	0	Yes	Yes
EB Left-Turn/ Through/Right-Turn Lane	1	179	179	56	25	101	25	80	25	127	25	24	0	26	0	Yes	Yes
WB Left-Turn/ Through/Right-Turn Lane	1	90	90	212	25	215	25	248	25	255	25	36	0	40	0	Yes	Yes
2. Project Access 1 / Main Street																	
WB Left-Turn/ Through/Right-Turn Lane	1	173	173	91	25	104	25	115	25	131	25	24	0	27	0	Yes	Yes

Table 4.17-10
Existing Conditions & Existing With Project Conditions Study Intersection Peak Hour 95th Percentile Vehicular Queuing Analysis Summary

Study Intersection (North-South/East-West)	No. of Lanes	Lane Storage Capacity (ft)	Distance to Next Major Intersection (ft)	Existing (2023) Conditions				Existing (2023) With Project Conditions				Project-Related Change				Adequate Storage Available?	
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
				Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	AM Peak Hour	PM Peak Hour
3. State Route 49 – Golden Chain Highway / Project Access 2 (North)																	
NB Left-Turn/ Through/Right-Turn Lane	1	55	55	206	25	324	25	249	25	373	25	43	0	49	0	Yes	Yes
SB Left-Turn/ Through/Right-Turn Lane	1	70	70	239	25	274	25	281	25	322	25	42	0	48	0	Yes	Yes
4. State Route 49 – Golden Chain Highway / Project Access 3 (South)																	
NB Left-Turn/ Through/Right-Turn Lane	1	55	55	207	25	325	25	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	Yes	Yes

Notes: Analysis Methodology: HCM (Highway Capacity Manual) 95Percentile Vehicular Queue utilizing 6Edition methodology and Synchro Version 11 analysis software. ft = feet; NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound.

Queue of one or less vehicle is shown as length of one car (25 feet).

N/A = Not applicable

*This existing access driveway is planned to be eliminated by the proposed project.

Table 4.17-11
Opening Year (2025) Without Project & Opening Year (2025) With Project Conditions Study Intersection Peak Hour 95th Percentile Vehicular Queuing Analysis Summary

Study Intersection (North-South/East-West)	No. of Lanes	Lane Storage Capacity (ft)	Distance to Next Major Intersection (ft)	Opening Year (2025) Without Project Conditions				Opening Year (2025) With Project Conditions				Project-Related Change				Adequate Storage Available?	
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
				Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	AM Peak Hour	PM Peak Hour
1. State Route 49 – Golden Chain Highway / Main Street																	
NB Left-Turn/ Through/Right-Turn Lane	1	156	156	257	25	397	25	300	25	444	50	43	0	47	25	Yes	Yes
SB Left-Turn/ Through/Right-Turn Lane	1	255	255	134	25	169	25	164	25	203	25	30	0	34	0	Yes	Yes
EB Left-Turn/ Through/Right-Turn Lane	1	179	179	91	25	127	25	115	25	153	25	24	0	26	0	Yes	Yes
WB Left-Turn/ Through/Right-Turn Lane	1	90	90	261	25	291	25	297	25	331	25	36	0	40	0	Yes	Yes
2. Project Access 1 / Main Street																	
WB Left-Turn/ Through/Right-Turn Lane	1	173	173	110	25	144	25	134	25	171	25	24	0	27	0	Yes	Yes

Table 4.17-11
Opening Year (2025) Without Project & Opening Year (2025) With Project Conditions Study Intersection Peak Hour 95th Percentile Vehicular Queuing Analysis Summary

Study Intersection (North-South/East-West)	No. of Lanes	Lane Storage Capacity (ft)	Distance to Next Major Intersection (ft)	Opening Year (2025) Without Project Conditions				Opening Year (2025) With Project Conditions				Project-Related Change				Adequate Storage Available?	
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
				Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	Traffic Volume	Queue (ft)	AM Peak Hour	PM Peak Hour
3. State Route 49 – Golden Chain Highway / Project Access 2 (North)																	
NB Left-Turn/ Through/Right-Turn Lane	1	55	55	269	25	402	25	312	25	451	25	43	0	49	0	Yes	Yes
SB Left-Turn/ Through/Right-Turn Lane	1	70	70	291	25	354	25	333	25	402	25	42	0	48	0	Yes	Yes
4. State Route 49 – Golden Chain Highway / Project Access 3 (South)																	
NB Left-Turn/ Through/Right-Turn Lane	1	55	55	270	25	403	25	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	Yes	Yes

Notes: Analysis Methodology: HCM (Highway Capacity Manual) 95Percentile Vehicular Queue utilizing 6Edition methodology and Synchro Version 11 analysis software. ft = feet; NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound.

Queue of one or less vehicle is shown as length of one car (25 feet).

N/A = Not applicable

*This existing access driveway is planned to be eliminated by the proposed project.

As shown in Table 4.17-11, based on the analysis performed for Opening Year (2025) Without Project Conditions and Opening Year (2025) With Project Conditions, adequate stacking capacity is forecast to be provided at the study intersections.

Detailed vehicular queue analysis sheets for Opening Year (2025) Without Project Conditions and Opening Year (2025) With Project Conditions are contained in Appendix G.

Evaluation of Truck Turning Maneuvers

An evaluation of truck turning maneuvers at the project site driveways has been conducted to ensure fuel trucks can access the site without interfering with any physical improvements, curbs, and poles.

Based on information provided by the Project Applicant, the fuel trucks would only utilize the SR 49 / Project Access 2 (North) driveway to access the site. Hence, without further evaluation and assessment, fuel trucks shall not utilize the other project driveway, and signage shall be provided to prohibit access of fuel trucks from that driveway.

Exhibit 4.17-9, Fuel Truck Turning Maneuvers, shows the inbound and outbound fuel truck turning maneuvers at the SR-49 / Project Access 2 (North) driveway based on information provided by Barghausen Consulting Engineers, Inc. As shown in Exhibit 4.17-9, fuel trucks can be expected to perform the required maneuvers to access the site from the SR 49 / Project Access 2 (North) driveway without conflicting with the physical site improvements.

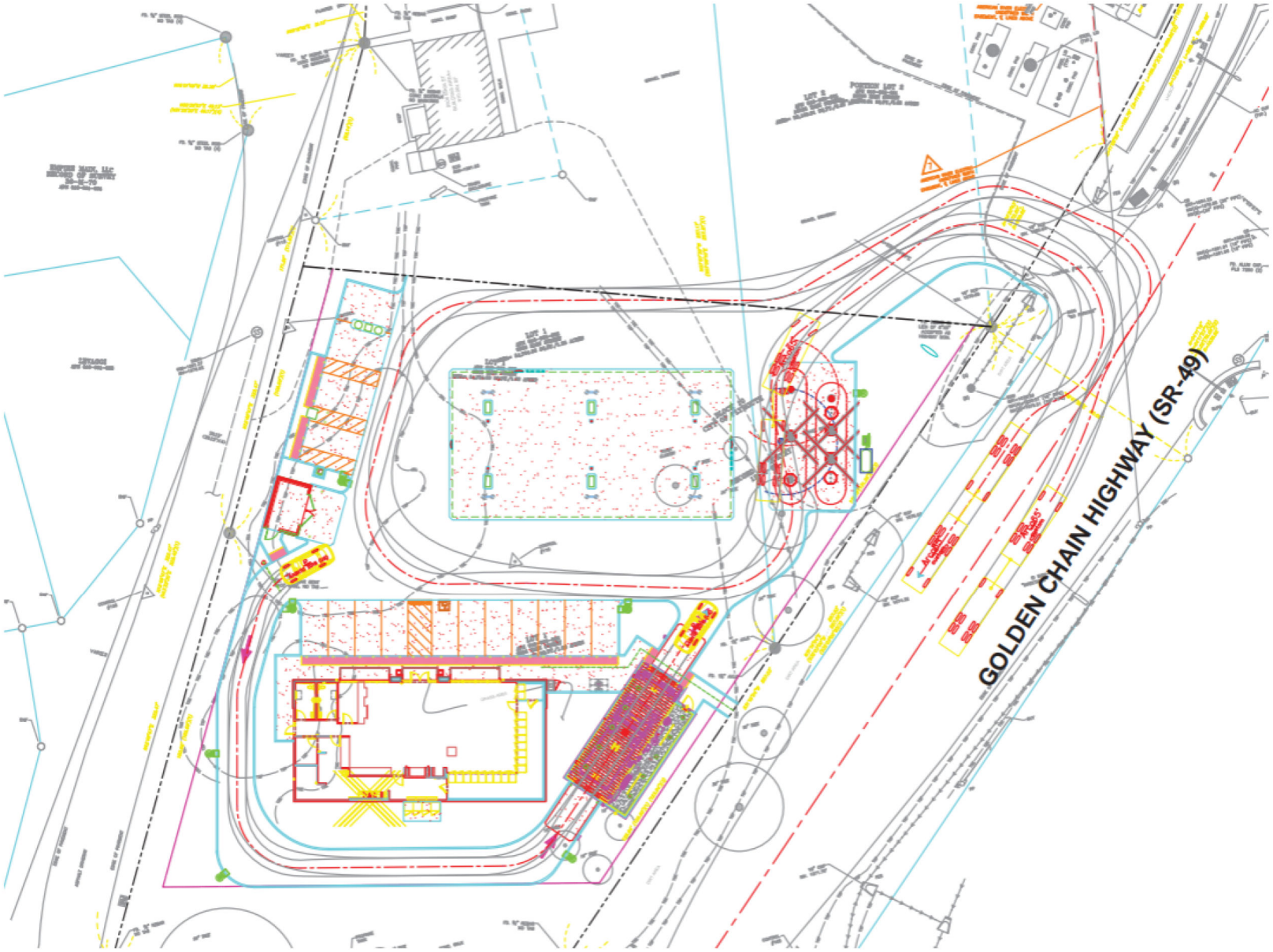
Evaluation of Sight Distance

An evaluation of sight distance at the project site driveways has been conducted to ensure adequate visibility is provided for vehicular traffic exiting the project site. The existing posted speed limit on Main Street and SR 49 in the vicinity of the project site is 35 and 45 miles per hour (MPH), respectively. For the purpose of this sight distance analysis, a design speed of 60 MPH is utilized for both Main Street and SR-49. Based on the Caltrans Highway Design Manual (HDM), for private roadways joining a public roadway, adequate stopping sight distance needs to be provided. Additionally, based on HDM, for roadways with a speed of 60 MPH, a stopping sight distance of 580 feet needs to be provided. The sight distance assumes the driver's eye to be approximately 15 feet behind the edge of travel way.

Utilizing this criteria:

- Exhibit N-1 in Appendix G shows the required sight distance and limited use area (area to be kept clear of sight obstructions) for vehicles exiting the Project Access 1 / Main Street driveway
- Exhibit N-2 in Appendix G shows the required sight distance and limited use area (area to be kept clear of sight obstructions) for vehicles exiting the SR 49 / Project Access 2 (North) driveway; and
- Exhibit N-3 in Appendix G shows the required sight distance and limited use area (area to be kept clear of sight obstructions) for vehicles exiting the SR 49 / Project Access 3 (South) driveway. As previously noted, with implementation of the proposed project, the two driveways along State Route (SR) 49 will be consolidated and this existing southerly driveway for the site on State Route (SR) 49 will be eliminated.

Figures 4.17-1a through 4.17-1e, Existing Site Distance, show the existing sight distance at the project driveways.



Data Sources: Plymouth ARCO Gas Station Project Transportation Study prepared by MAT Engineering, October 2024
Map Export: 10/21/2024 2:42 PM.

EXHIBIT 4.17-9
Fuel Truck Turning Maneuvers

Figure 4.17-1a. Project Access 1 / Main Street Driveway. Looking West onto Main Street

Figure 4.17-1b. Project Access 1 / Main Street Driveway Looking East onto Main Street

Figure 4.17-1c. SR-49 / Project Access 2 (North). Looking North onto SR-49

Figure 4.17-1d. SR-49 / Project Access 2 (North). Looking South onto SR-49

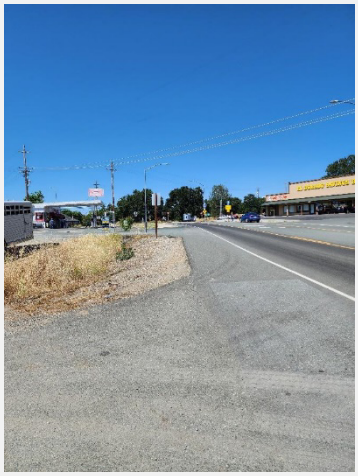


Figure 4.17-1e. SR-49 / Project Access 3 (South). Looking North onto SR-49

Figure 4.17-1f. SR-49 / Project Access 3 (South). Looking South onto SR-49

It should also be noted, for vehicles exiting the site from the Project Access 1 / Main Street driveway, the sight distance might be slightly limited under existing conditions due to a dip in the roadway profile on Main Street in front of the City Hall building.

Evaluation of Collision History

An evaluation of the collision history and patterns has been conducted in the project site vicinity to determine potential areas experiencing high collision or repeated patterns. The data has been obtained from the Statewide Integrated Traffic Records System (SWITRS) for the years 2020, 2021, 2022, and 2023. Table 4.17-12 summarizes the results of the collision history and evaluation. Detailed SWITRS data is contained in Appendix G.

Table 4.17-12
3-Year Collision History for SR-49 / Main Street Intersection & Vicinity

#	Year	Intersection	Location	Collision Type	Primary Factor	Property Damage	Injury	Fatality
1	2020	SR-49 / Main Street	150 feet South of Intersection	Rear End	Unsafe Speed	X		
2	2020	SR-49 / Main Street	At Intersection	Broadside	Right-of-Way	X		
3	2022	SR-49 / Main Street	336 feet South of Intersection	Unknown / Other	Unsafe Speed		X	

Source: Statewide Integrated Traffic Records System (SWITRS) data for years 2020, 2021, 2022, and 2023
Notes: No collisions reported for 2021 and 2023

As shown in Table 4.17-12, based on the data published by SWITRS, there are not many traffic collisions or repeated patterns of collisions in the study area and project site vicinity within the last three years.

Site Circulation

As previously noted, access to the site is shared with adjacent parcels and uses which consist of the Plymouth Trading Post and the Fig Barn. Hence, currently, the project site takes access via the following existing **three driveways**:

- One existing full access unsignalized driveway along Main Street; and
- Two existing full access unsignalized driveways along State Route (SR) 49

With implementation of the proposed project, the two driveways along State Route (SR) 49 will be consolidated and the existing southerly driveway for the site on State Route (SR) 49 will be eliminated. Hence, with the implementation of the proposed project, access for the site will continue to be shared with adjacent parcels and uses and the project is planned to take access via the following **two driveways**:

- One existing full access unsignalized driveway along Main Street; and
- One existing full access unsignalized driveway along State Route (SR) 49

The access consolidation is generally considered to be appropriate traffic engineering and transportation planning practice since it is expected to reduce traffic friction along State Route (SR) 49 by reducing points of conflict in the vehicular as well as pedestrian traffic flow.

The proposed project is planned to maintain the existing sidewalks on the project site frontage along Main Street and up to approximately 175 feet south of the SR 49 / Main Street intersection to continue facilitating pedestrian access in the area. No sidewalks are planned beyond that point along SR 49 since SR 49 does not have any sidewalks on either side south of the project site.

Additionally, to facilitate pedestrian access to and from the nearby land uses, pedestrian crosswalks would continue to be provided on all four legs of the SR 49 / Main Street intersection and on the south and west leg of the Mill Street / Main Street intersection. These crosswalks would also provide pedestrian connectivity to the on-street parking spaces currently located on the north edge of Main Street and across from the project site.

Based on evaluation of multiple elements, including peak hour level of service operations of the driveways, vehicular queueing evaluation at the driveways, fuel truck turning maneuvers, and evaluation and examination of past collision history and patterns, the project site driveways can be expected to experience satisfactory operations in regard to the evaluated elements.

d) Would the project result in inadequate emergency access?

Less Than Significant Impact. The proposed project would utilize the existing driveway located on Main Street, and project implementation would consolidate the two existing driveways on SR 49 into one shared access driveway to be utilized for the proposed project. During construction, construction equipment would be staged on the project site and would not block the roadways surrounding the project site. Construction on and obstruction of public rights-of-way associated with utility connections to existing utility infrastructure would be in accordance with applicable City regulations. No lane or road closures would result during the construction phase of the project. Accordingly, temporary construction activities would not impede the use of surrounding roadways for emergency evacuation or access for emergency response vehicles. Ingress and egress for the project site would be reviewed by the Amador Fire Protection District to ensure there is sufficient emergency access provided at the site as required by the City of Plymouth Municipal Code Section 15.05.020, which adopts by reference the California Fire Code. Therefore, impacts would be less than significant, and no mitigation is required.

Regulatory Requirements

Local

City of Plymouth Municipal Code

City of Plymouth Municipal Code Chapter 15.05, Building Code, requires compliance with the 2022 California Building Code (or most current version) and the 2019 edition of the California Fire Code (Part 9 of Title 24 of the California Code of Regulations).

Mitigation Measures

Project implementation would not result in significant impacts related to traffic and transportation; therefore, no mitigation measures are required.

4.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

This section reviews the potential to have adverse effects on Tribal Cultural Resources. The City of Plymouth conducted consultation with California Native American Tribes, as required by CEQA, per Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18). The City of Plymouth initiated consultation on October 31, 2023, by notifying the City's consultation list of the proposed project located at 18725 CA 49. The outreach included the Buena Vista Rancheria of Me-Wuk Indians, the Calaveras Band of Mi-Wuk Indians, the Chicken Ranch Rancheria of Me-Wuk Indians, the Ione Band of Miwok Indians, the Jackson Rancheria Band of Miwuk Indians, the United Auburn Indian Community of the Auburn Rancheria, the Washoe Tribe of Nevada and California, the Shingle Springs Band of Miwok Indians, the Nashville Enterprise Miwok-Maidu-Nishinam Tribe, and the Wilton Rancheria. The outreach referenced a 30-day timeframe to receive any feedback related to the project. Shingle Springs Band of Miwok Indians notified the City on November 14, 2023, that the identified location of the project site is within an area of interest and requested initiation of consultation to address cultural and historic resource issue.

Impact Analysis

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

Less Than Significant Impact. As discussed in Section 4.5, Cultural Resources, the cultural resources study conducted for the project site did not identify any previously recorded prehistoric or historic archaeological sites or historic structures within the project site. There are no registered or eligible historic resources on-site. Furthermore, the project site does not contain any known sacred lands or sites. However, the proposed project would involve grading of the site and significant ground disturbance and site improvements. Compliance with

Mitigation Measures CUL-1 through CUL-3 would avoid or reduce impacts to any previously undiscovered archaeological or cultural resources or human remains that may be uncovered during project implementation.

AB 52 established a formal consultation process for California tribes within the CEQA process. AB 52 specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Section 21074 of AB 52 also defines tribal cultural resources as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe and that are either listed on, or eligible for, the California Register of Historical Resources or a local historic register, or the lead agency chooses to treat the resource as a significant resource.

The City notified tribes that requested to be alerted of new projects on October 30, 2023, which included the Buena Vista Rancheria of Me-Wuk Indians, the Calaveras Band of Mi-Wuk Indians, the Chicken Ranch Rancheria of Me-Wuk Indians, the Ione Band of Miwok Indians, the Jackson Rancheria Band of Miwuk Indians, the United Auburn Indian Community of the Auburn Rancheria, the Washoe Tribe of Nevada and California, the Shingle Springs Band of Miwok Indians, the Nashville Enterprise Miwok-Maidu-Nishinam Tribe, and the Wilton Rancheria.

The Shingle Springs Band of Miwok Indians notified the City on November 14, 2023, that the identified location of the project site is within an area of interest and requested initiation of consultation to address cultural and historic resource issues. The City responded on January 18, 2024, and provided the proposed site plan and Cultural Resources Study. No response was received, and no further consultation occurred.

With implementation of Mitigation Measures CUL-1 through CUL-3, impacts to tribal cultural resources would be mitigated to a less than significant level.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact. The project site does not contain any known resources determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. It is further noted that any discovery of human remains, as noted in Section 4.5, Cultural Resources, would be subject to Section 5097.98 of the California Public Resources Code, as well as Mitigation Measure CUL-3. With implementation of regulatory requirements and Mitigation Measure CUL-3, impacts would be less than significant, and no additional mitigation is required.

Regulatory Requirements

Local

City of Plymouth General Plan Environmental Impact Report

The City of Plymouth General Plan EIR Mitigation Monitoring and Reporting Program requires mitigation measures to avoid or lessen impacts related to discovery of cultural resources and/or human remains. These mitigation measures are reflected in Mitigation Measures CUL-1 through CUL-3.

Mitigation Measures

Refer to Mitigation Measures CUL-1 through CUL-3.

4.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX.UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Impact Analysis

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact.

Water

The City of Plymouth supplies water to the surrounding area and would supply water to the project site. Water line improvements at the project site would be constructed in accordance with Title 14, Water, of the Plymouth Municipal Code.

The City purchases water wholesale from the Amador Water Agency (AWA). The imported water is channeled from the Mokelumne River to Lake Tabeaud. From the lake, water is conveyed by a gravity pipeline system to the

Tanner Water Treatment Plant (TWTP), where it is treated for use by the customers of Plymouth.[44] According to the Amador Water Agency Water Master Plan Study, dated January 28, 2021, the TWTP does not have sufficient water supply for its entire service area, including Plymouth, through 2040, because the capacity of the plant is limited due to the placement of hydroelectric turbines. The AWA anticipates a 4 percent growth in Plymouth's population, and an equivalent increase in the City's water demands through 2040. When combined with anticipated growth throughout the service region, the Study anticipates a water supply deficit of at least 1.15 million gallons per day (MGD) by 2040 for the TWTP. The AWA is currently considering several ways to increase the capacity of the TWTP, as well as combining the treatment plant with the nearby Ione Treatment Plant.[45]

In order for the proposed project to be granted a will-serve letter from the AWA, the proposed project would be subject to conditions of approval, which may include the following:

- The Applicant shall apply for a "Determination of Water Availability" from the AWA.
- Upon receipt of an approved project approval from the City, the Applicant shall apply for a wholesale Condition Will Serve from the AWA. AWA will then advise the Applicant of the requirements to serve the proposed project and other specific facilities to be constructed prior to initiation of water service for the proposed project.
- Upon compliance with all of the terms of the Conditional Will Serve Commitment, the Applicant shall apply for a Will Serve Commitment from the AWA.
- The Applicant will be required to obtain a "Wholesale Water Will Serve Commitment" from the AWA prior to obtaining a building permit or initiation of service to the proposed project.
- The Applicant shall pay all applicable capacity fees per the AWA's rules and regulations in force at the time of payment and/or service.
- The proposed car wash facility shall include a water recycling system capable of recycling a minimum of 90 percent of the water used.

Additionally, the proposed project would not individually exceed the capacity of the existing water supply and the TWTP. The carwash would have a reclamation system that would reduce its demand on the local water supply. Though the carwash manufacturer and reclamation system have not yet been selected, it is anticipated that the convenience store and car wash would use approximately 3,800 gallons of water per day, which equates to only 0.068 percent of the existing capacity of the TWTP. The project would also be required to comply with the CalGreen Code (as adopted by the City), which requires indoor and outdoor conservation measures such as low flush toilets, aerators on sinks and showerheads, other water-efficient appliances, and water-efficient automatic irrigation system controllers. Furthermore, prior to the issuance of the building permit, the Applicant would be required to verify that the City's water system can accommodate the proposed project's fire flows and potable water demand. The estimated water demand of the project is not expected to exceed available supplies. Impacts would be less than significant, and no mitigation measures are required.

Wastewater

The City of Plymouth's Public Works Department maintains the City's sewer system. Wastewater from the City's system is treated at the City's wastewater treatment plant located approximately 1.5 miles west of the city. Sewer line improvements at the project site would be constructed in accordance with Title 13 of the Plymouth Municipal Code, including all applicable connection and service fees. The project would generate an estimated 3,000 gallons of wastewater per day. The City Engineer has reviewed the preliminary project plans, and no concerns were raised regarding the City's wastewater treatment capacity. The sewer connection for the project shall be located on Mill Street, per City standards.[46]

[44] Amador Water Agency. 2022. "Annual Consumer Confidence Report." 31 December 2022. Accessed 20 October 2023. https://cityofplymouth.org/wp-content/uploads/2023/07/Annual-Consumer-Confidence-Report-Jan-Dec-2022.pdf.
[45] 2021. Amador Water Agency Master Plan Study. 28 January 2021. Accessed 20 October 2023. https://amadorwater.org/wp-content/uploads/2021/02/AWA-Water-Master-Plan-FINAL-2021-01-28.pdf.
[46] Written communication. City Engineer to City Planner. February 21, 2024.

Wastewater generation of the project would not substantially increase the demand on the City's wastewater treatment plant. The Applicant would be required to obtain a connection permit from the City prior to establishing a sewer connection at the project site, verifying that the City's sewer system can accommodate the project's anticipated flows. Therefore, impacts to wastewater services would be less than significant and no mitigation is required.

Storm Water

As discussed in Section 4.10, Hydrology and Water Quality, storm water drainage would be facilitated through implementation of water quality and retention facilities. The proposed project is designed to have several high and low points throughout the site to convey and collect storm water drainage appropriately. The project would include a storm drain system consisting of a series of inlets and pipes that ultimately convey runoff to a storm water quality treatment device located on-site. Treated water would be detained in an underground system and then discharged on-site, adjacent to the public right-of-way. Additionally, the proposed project would comply with the NPDES permit requirements as discussed in Section 4.10. Implementation of BMPs would improve water quality and reduce runoff during construction and operation. Therefore, impacts to storm water drainage would be less than significant and no mitigation is required.

Electricity and Natural Gas

Pacific Gas and Electric Company (PG&E) currently provides electricity and natural gas to the city. The project site would require connection to power lines in the vicinity of the site in accordance with the installation requirements of PG&E and extension rules on file with the California Public Utilities Commission (CPUC). The project would not use natural gas on-site. As described in Section 4.6, Energy, the project would not result in energy use such that new or expanded facilities would be required. The Project Applicant would coordinate with PG&E to ensure avoidance of any notable service disruptions during the extension of, relocation of, upgrade of, or connection to services. The Applicant would also be responsible for the payment of electricity connections and use of the utilities.

The project proposes the installation of two electric vehicle charging station stalls located on the western property line. The City of Plymouth has an expedited permitting process to encourage the installation of electric vehicle charging stations; the Project Applicant would be required to obtain a permit for the electric vehicle charging stations in accordance with Chapter 15.08 of the City of Plymouth Municipal Code.

A significant impact related to the need for new systems or supplies, or substantial alterations related to electricity would not occur. Establishment of electricity at the project site and connection to existing power lines would be required to comply with PG&E, State, and local regulations. Impacts would be less than significant, and no mitigation is required.

Telecommunications

Xfinity provides telecommunications service to the area, including the project site. The service would be provided in accordance with Xfinity's policies and extension rules on file with the CPUC. Impacts would be less than significant, and no mitigation is required.

Conclusion

The Project Applicant would coordinate with all utility providers to ensure avoidance of any notable service disruptions during the extension of, relocation of, upgrade of, or connection to services. Based on the analysis above, the project would not require or result in the relocation or construction of new or expanded water or wastewater infrastructure and treatment facilities, storm water drainage, electricity, natural gas, or telecommunications facilities. All necessary infrastructure improvements and connections required to establish utility services at the project site would be conducted in accordance with utility company, State, and local policies and regulations. Impacts would be less than significant, and no mitigation measures are required.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. The project site is within the service boundary of the City of Plymouth. The City purchases water wholesale from the Amador Water Agency (AWA). The AWA channels water from the Mokelumne River to Lake Tabeaud. A gravity pipeline system conveys this water to the Tanner Reservoir and Tanner Water Treatment Plant (TWTP), from which potable water is transmitted to regional customers, including the City of Plymouth. The AWA depends on snow melt to ensure adequate water supplies are available throughout the County. The AWA does not currently import water. According to the Amador Water Agency Water Master Plan Study, dated January 28, 2021, the TWTP is currently operating at a slight supply deficit, which is expected to increase to at least 1.15 million gallons per day (MGD) by 2040.

The water supply deficit in the region would not be caused directly by the project, and development such as the proposed project is anticipated and planned in the future expansion strategies of the AWA. The proposed project would place a relatively minimal demand on the water supply, with a demand of approximately 3,800 gallons per day. This usage translates to approximately 0.068 percent of the existing capacity of the TWTP. Additionally, the project proposes a reclamation facility to be constructed for the car wash, which would limit the project site's demand on the water supply. The project would comply with the CalGreen Code (as adopted by the City), which requires indoor and outdoor conservation measures.

Water service to the project would also be provided in compliance with Title 14, Water, of the Plymouth Municipal Code, which sets regulations for service connections, water rates, and other water system provisions. With compliance with the City's water service regulations and the CALGreen Code, the proposed project would not significantly impact the City's water supply. Impacts would be less than significant, and no mitigation is required.

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. Wastewater generation of the project is not expected to significantly increase the demand on the City's wastewater treatment system. The Project Applicant would also be required to pay connection and service fees to fund wastewater treatment that would be needed by the project, pursuant to Title 13, Sewers, of the Plymouth Municipal Code. The Project Applicant must obtain a permit prior to making any connection to existing sewer lines near the project site. The project is not anticipated to exceed the capacities of the City's wastewater treatment facility. Impacts would be less than significant, and no mitigation is required.

d) Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. ACES Waste Services, Inc. provides trash and recycling services to all commercial facilities within Plymouth. Waste collected by ACES within the City is taken to one of ACES's two transfer stations, located in Pine Grove and Ione, which accept trash and full-serve recycling. The proposed project would contract with ACES to provide solid waste removal once per day. The California Department of Resources Recycling and Recovery's (CalRecycle) most recent solid waste generation rates for commercial uses is 10.53 pounds per employee per day. The project's commercial uses are expected to generate up to 15 new jobs. Therefore, with a total of up to 15 employees, the proposed project would generate an estimated 157.95 pounds per day of solid waste. This is a conservative estimate, as not all 15 employees would be working at the same time. Nevertheless, this increase would be 0.0796 percent of the landfill's daily maximum permitted throughput and could be accommodated.

Based on available capacities at existing facilities, the project is anticipated to result in a less than significant impact on the applicable solid waste facilities. The project would not generate solid waste in excess of State or local standards or impair the attainment of solid waste reduction goals. Impacts would be less than significant, and no mitigation is required.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. Solid waste would be generated during construction and operation of the proposed project. The Solid Waste Reuse and Recycling Access Act of 1991 requires that adequate areas be provided for collecting and loading recyclable materials such as paper products, glass, and other recyclables. As of July 1, 2012, Assembly Bill (AB) 341 mandates any business generating more than 4 cubic yards of solid waste per week to recycle. Additionally, the project would be subject to State, County, and local statutes and regulations related to solid waste. Compliance with all applicable Federal, State, and local laws, regulations, and standards regarding solid waste disposal, including the mandates of the Resource Conservation and Recovery Act (RCRA), AB 939, AB 341, AB 1826, and the California Green Building Code, would further reduce impacts to solid waste disposal. In accordance with Section 4.408 of the CALGreen Code, at least 65 percent of demolition and construction debris would need to be diverted from landfills by recycling, reuse, and/or salvage.

The proposed project would have daily waste collective services and be provided with recycling bins to promote recycling. The project proposes a 12-foot by 18-foot trash enclosure located adjacent to the car wash entrance that would have sufficient space for regular waste receptacles and recycling receptacles. It would be enclosed with a 6-foot-tall concrete masonry unit wall with a metal gate.

Therefore, the project would comply with statutes and regulations pertaining to solid waste and impacts would be less than significant in this regard. No mitigation is required.

Regulatory Requirements

Local

City of Plymouth Municipal Code

Title 15, Buildings and Construction

The project shall be designed and constructed with water-efficient fixtures and systems, as required by the CALGreen Code, which has been adopted by reference into Section 15.05.020, Adoption of Uniform Codes, or the Plymouth Municipal Code. The project contractor shall recycle, reuse, and/or salvage at least 65 percent of demolition and construction debris, in accordance with Section 4.408 of the CALGreen Code.

Title 13, Sewers

Wastewater service to the project, including application for sewer service, service connections, and rates, shall be constructed and provided in accordance with Title 13, Sewers, of the Plymouth Municipal Code. The Project Applicant shall pay the applicable connection fee and obtain a connection permit.

Title 14, Water

Water service for the project, including application for water service, service connections, water rates, fire service, and water mains, shall be constructed and provided in accordance with Title 14, Water, of the Plymouth Municipal Code.

Mitigation Measures

Project implementation would not result in significant impacts related to utilities and service systems; therefore, no mitigation measures are required.

4.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Impact Analysis

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The proposed project is not within a designated VHFHSZ, as defined by the California Department of Forestry and Fire Prevention (CALFIRE). The project site is located within a Local Responsibility Area, and is serviced by the Amador Fire Protection District (AFPD). The project site is located adjacent to two recognized emergency evacuation routes. The Amador Fire Safe Council designates Main Street as a primary evacuation route and SR 49 as an evacuation highway. This evacuation route leads south and west to Jackson and Highway 16, north to Placerville, and connects to both easterly and westerly evacuation routes to Amador County cities and unincorporated areas. As discussed in Section 4.9, Hazards and Hazardous Materials, Impact Threshold (f), development of the proposed project would not require the closure or blocking of an emergency evacuation route and would maintain adequate access to the emergency evacuation route.

In addition, all proposed construction is required to meet minimum standards for fire safety in conformance with the California Building Code and Fire Code, which are adopted in Chapter 15.05 of the City of Plymouth Municipal Code. The surrounding roadways would continue to provide emergency access to the project site and surroundings during construction and postconstruction.

Because Checklist Response thresholds 4.20(a) through 4.20(d) apply only to those projects that are “located in or near state responsibility areas or lands classified as very high fire hazard severity zones”, impacts would be less than significant, and no mitigation measures are required.

b) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less Than Significant Impact. The project site is vacant and contains vegetation. The topography of the site varies with minimal slopes, and the general drainage is from north to south, and slightly from east to west. The city does not experience high-speed prevailing winds; average wind speeds are approximately 5.6 miles per hour during the windier part of the year, from November to March.[47]

Development on the project site would be subject to compliance with the CBC. Moreover, the City of Plymouth is under the Amador County Local Hazard Mitigation Plan, which provides guidance to effectively respond to and mitigate emergencies, including wildfires. The project site is not within a State Responsibility Area, nor is it designated as being located in a VHFHSZ. Development of the project would be in conformance with the CBC and Fire Code. The proposed project would be reviewed and approved by the Amador Fire Protection District. Therefore, the project is not expected to exacerbate wildfire risks and create pollutants associated with wildfire or uncontrolled spread of wildfire, impacts would be less than significant, and no mitigation is required.

c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less Than Significant Impact. The proposed project would consist of new construction on a currently vacant and undeveloped site. The proposed project would require the installation of new infrastructure and utility services to the site, in connection with existing services nearby. The new infrastructure would be constructed in compliance with the California Building and Fire Code, the Amador Fire Protection District's building standards, and Municipal Code Title 15, Buildings and Construction, including Section 15.05.020 Item G, the 2019 California Fire Code. Additionally, the proposed project would comply with the 2019 California Residential Code and the 2019 California Electrical Code pursuant to Municipal Code Chapter 15.05, Building Code.

The proposed project is not located within a VHFHSZ or a State Responsibility Area. The construction of new and improved infrastructure for the project would not directly increase fire risk, and impacts would be less than significant. No mitigation is required.

d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant Impact. As discussed in Section 4.7, Geology and Soils, the project site is not within a flood hazard zone or landslide area. There are no flooding or safety concerns caused by drainage. Additionally, due to the relatively gentle slope of the project site, there is a low risk for slope stability related hazards.

Construction activities related to the proposed project would be subject to compliance with the CBC and would include BMPs. BMPs may include, but are not limited to, covering of the soil, use of a dust-inhibiting material, landscaping, use of straw and jute, hydroseeding, and grading in a pattern that slows stormwater flow and reduces the potential for erosion, landslides, and downstream flooding. Operationally, natural drainage at the project site would generally be similar to existing conditions and the project would include drainage improvements to capture and treat runoff. Development of the site would not affect downstream or downslope flooding or landslides. The project site would become significantly more impervious than existing conditions, and the proposed build out of the currently vegetated site would lessen the potential for post-fire slope instability. Therefore, with implementation of BMPs, impacts would be less than significant, and no mitigation is required.

[47] Weather Spark. 2023. "Climate and Average Weather Year Round in Jackson." Accessed 20 October 2023. https://weatherspark.com/y/1350/Average-Weather-in-Jackson-California-United-States-Year-Round#Sections-Wind.

Regulatory Requirements

Local

City of Plymouth Municipal Code

Title 15, Buildings and Construction

The project shall be designed and constructed in accordance with the California Building Code and Fire Code, which have been adopted by reference into Section 15.05.020, Adoption of Uniform Codes, or the Plymouth Municipal Code.

Mitigation measures

Project implementation would not result in significant impacts related to wildfire; therefore, no mitigation measures are required.

4.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Impact Analysis

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact With Mitigation Incorporated. There are no sensitive biological resources, habitats, or species on the project site that would be affected by the project. As indicated in Section 4.4, Biological Resources, of this IS/MND, given the current ruderal condition and the existing trees and shrubs on the site, migratory birds may nest on the vegetation on-site. However, MM BIO-1 would avoid impacts to active bird nests during construction of the project. Impacts to nesting birds would be less than significant after mitigation.

There are no historical resources on the project site that would be impacted by the proposed project. Additionally, implementation of MM CUL-1 through CUL-3 would prevent or reduce impacts to buried archaeological resources and human remains that may be uncovered during grading and excavation activities. Implementation of MM-GEO-2 would also mitigate impacts to paleontological resources. With implementation of these mitigation measures, the project's potential impacts on cultural and tribal cultural resources would be less than significant.

Therefore, the project would not substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; reduce the number or restrict the range of a rare or endangered plant or animal; or eliminate important examples of the major periods of California history or prehistory. Impacts would be less than significant with mitigation.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less Than Significant Impact. As identified in the preceding analyses, all project-level impacts have been determined to be less than significant with or without compliance with regulatory requirements or mitigated to a level considered less than significant with incorporation of mitigation measures. These impacts would not be cumulatively considerable, since mitigation measures would be implemented to avoid or reduce potential project-specific impacts associated with these environmental issues.

Development projects would be subject to environmental review by the City, pursuant to CEQA, the State CEQA Guidelines, and the City's Local CEQA Guidelines, to determine if they would lead to cumulative environmental effects as part of the appropriate CEQA analysis for each project. There are no approved, planned, or proposed projects within a one-mile vicinity of the project site. Since the proposed project would not have significant impacts after mitigation and there are no other projects in the vicinity, the impacts of the project are not expected to result in cumulatively considerable impacts when added to the impacts of other projects planned or proposed in the vicinity of the site. Cumulative impacts would be less than significant, and no mitigation is required.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact With Mitigation Incorporated. Based on the environmental analyses above, with compliance with applicable regulatory requirements and/or the implementation of mitigation measures, the project would have less than significant impacts on humans, as it relates to the following environmental issue areas: aesthetics, agriculture and forestry resources, air quality, energy, greenhouse gas emissions, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire.

The proposed project's impacts on the following issue areas would require the implementation of mitigation measures: biological resources, cultural resources, geology and soils, hazards and hazardous materials, and noise. All impacts would be avoided or reduced to less than significant levels after mitigation.

Therefore, the proposed project would not result in environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly, with the implementation of mitigation measures. All impacts would be less than significant after mitigation.

5 Preparers

5.1 List of Preparers

CSG Consultants, Inc.:

3707 W. Garden Grove Blvd, Suite 100
Orange, California 92868
Phone: 714.815.8124

- Glenn Lajoie, AICP – Project Manager
- Kelli Allen – Environmental Analyst

Technical Consultants:

Michael Baker International

5 Hutton Centre Drive, Suite 500
Santa Ana, California 92707
Phone: 949.472.3505

- Eddie Torres – Technical Studies Manager
- Tina Yuan – Air Quality/GHG Specialist
- Kholood Abdo – Cultural Resources Specialist
- Richard Johnston – Simulations

Hunting Environmental LLC

3606 Cambridge Road
Cameron Park, California 95682
Phone: 916.501.2258

- Joyce Hunting – Biologist

Bollard Acoustical Consultants, Inc.

P.O. Box 7968
Auburn, California 95604
Phone: 530.537.2328

- Dario Gotchet – Noise Specialist

MAT Engineering, Inc.

17192 Murphy Avenue
Irvine, California 92623
Phone: 949.344.1828

- Alex Tabrizi – Traffic Specialist