

# Initial Study

## Auburn Gas, Inc. Fueling Station

### Nevada County, California

**To:**

CEO – Alison Lehman	Nevada Irrigation District
Assistant CEO – Erin Mettler	Northern Sierra Air Quality Management Dist.
COB – Jeff Thorsby	Higgins Fire Protection District
Supervisor Tucker – District 2	South County MAC
Commissioner Hansen – District 2	Native American Heritage Commission
Principal Planner	North Central Information Center
Nevada County Transportation Commission	Colfax-Todds Valley Consolidated Tribe
Assessor – Rolf Kleinhans	Nevada City Rancheria Nisenan Tribe
Building Department	Shingle Springs Band of Miwok Indians
Community Development Agency Director	T’si Akim Maidu Tribal Council
Counsel’s Office	United Auburn Indian Community
Economic Development – Kimberly Parker	Wilton Rancheria
Economic Resource Council	CA Department of Fish and Wildlife
Environmental Health	Nevada County Contractors’ Association
Fire Marshall – Dan Collins	Bear River Park District
Public Works Department - Engineering	Nevada County Counsel – Sims Ely*
Public Works Department – Sanitation	CalTrans
Nevada County Counsel – Doug Johnson*	CAL EPA
Nevada County Transportation Commission	Neighboring parcels within 300-feet
Lake of the Pines Homeowner Association	California Air Resources Board (CARB)
<i>*receives full report, others receive NOA only with report available online</i>	

**Date:** February 5, 2025

**Finalized by:** Tyler Barrington, Principal Planner  
 Nevada County Planning Department  
 950 Maidu Avenue, Suite 170  
 Nevada City, CA 95959  
 (530) 470- 2723  
 tyler.barrington@nevadacountyca.gov

**File Number:** PLN23-0157; DVP23-0005; EIS24-0002

**Assessor Parcel Number:** 057-141-031

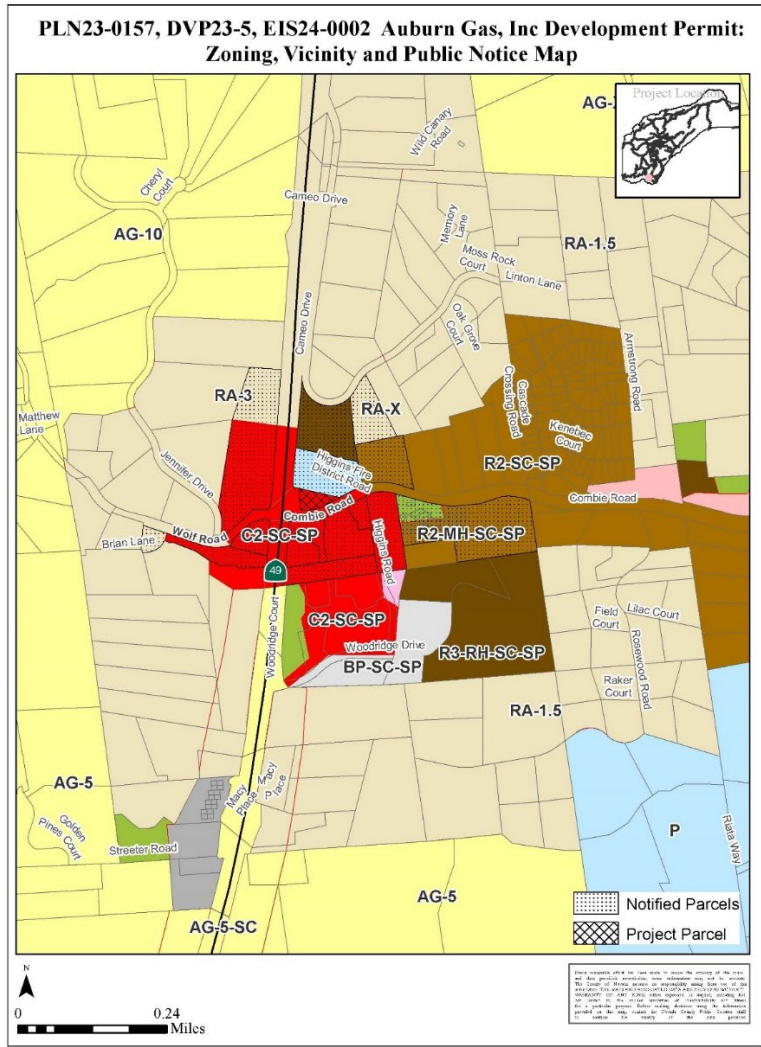
**Zoning Districts:** Community Commercial/ Scenic Corridor/ Site Performance  
 Combining District (C2-SC-SP)

**General Plan Designations:** CC (Community Commercial)

**Project Location:** Situs Address: 10018 Combie Road, Auburn, CA 95602  
 (Unincorporated Nevada County). Project parcel is located along the east side of State Highway 49, north of Combie Road, within the Lake of the Pines Commercial Village Center (See Figure 1).

**Surrounding Land Uses:**

The project site is within a semi-urbanized community commercial corridor, with the Lake of the Pines Community Region. The Lake of the Pines Village Center, a commercial corridor for the surrounding community, offering retail and commercial services to residents. More specifically, the project property is located on the east side of State Highway 49 and directly north of Combie Road, adjacent to the Highway 49 and Combie Road intersection, known locally as Higgins Corner. Directly north of the project parcel is the Higgins Fire Protection District fire house. Located south of Combie Road is a developed commercial center. The center offers services from a variety of commercial tenants, to include the franchise coffee chain “Starbucks”, a local “CVS” pharmacy, a “Subway” sandwich shop, a community grocer of the “Holiday Market” franchise, a local real-estate office, and an existing “Chevron” gas station. On the west side of State Highway 49 is an existing commercial center, offering services such as a bakery, a dental office, church services, and an operating gas station. A mile to the east of the project site is a planned residential subdivision and private homeowner association, consisting of approximately 2,000 single-family residential homes and offering recreational amenities (see Figure 1).



**Figure 1. Project Zoning, Vicinity and Public Notice Map**

## Project Description

The project proposes a Development Permit (DVP23-0005) to construct an ARCO AM/PM gas station and convenience store on an approximately 0.81-acre commercially zoned parcel in south Nevada County at the intersection of State Route 49 and Combie Road. The proposal includes construction and operation of a 3,323 square-foot (sq. ft.) single story convenience store with a maximum height of approximately 24-feet, and six dual fuel pump stations (12 fueling stations total), associated 2,592 sq. ft. canopy overhang above the fueling pumps with a height of 18-feet. Operating hours are proposed as 24-hours a day, 7 days a week. The project will include nineteen (19) parking stalls with four (4) associated electric vehicle charging stations. Additional site improvements will consist of site grading, the installation of an underground "Stormtech Chamber" and a sand/oil separator under the parking area to manage stormwater run-off, a maximum 8-foot retaining wall near the rear building (west and northern sides of parcel), a 4-foot retaining wall along a pedestrian travel way along Combie Road frontage, and two 22,000-gallon underground fuel tanks (one unleaded gasoline and one diesel fuel). New signage, lighting, landscape/irrigation, fencing, a trash enclosure, individual trash receptacles, pedestrian walkways, and two access points meeting commercial road standards onto Combie Road are also proposed. The project includes the removal of an existing 12-stall asphalt parking lot and circulation area and the demolition of an approximately 1,297 sq. ft. existing office building, including removal of fifteen trees on site. Figure 2 shows the existing site plan for the project site and Figure 3 provides the proposed site plan for the gas station project.

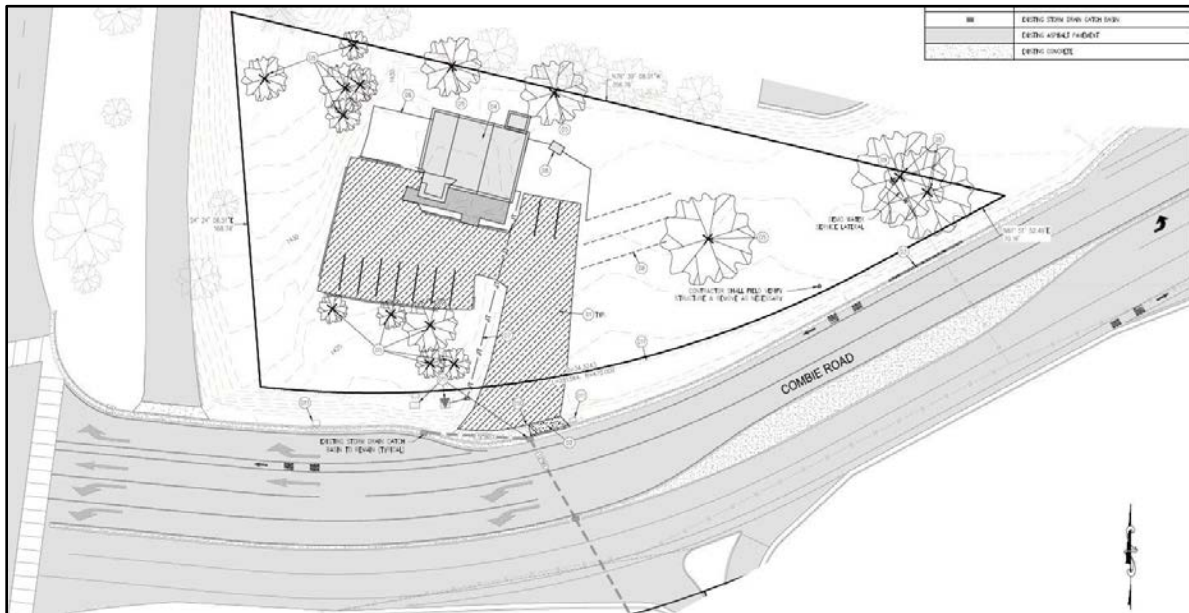


Figure 2. Existing Site Plan

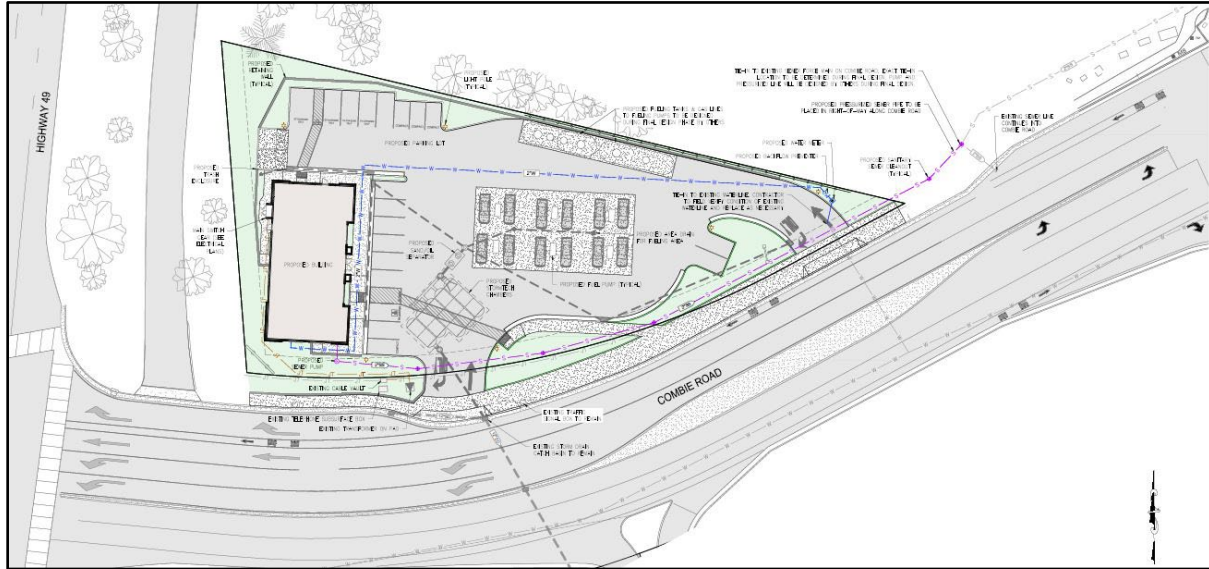


Figure 3. Proposed Site Plan

Project signage is proposed to be typical to an ARCO AM/PM, with: 1. a “goal post” price sign, 25-foot tall for visibility from Hwy 49; 2. A monument price sign, proposed at a height to 6-feet 6-inch; 3. a wall mounted building sign with a proposed face area of 63.29 sq. ft.; 4. six (6) building mounted “pop” signs approximately 8 sq. ft. each with top mount lighting; 5. two (2) ARCO letter canopy signs approximately 10 sq. ft. each with three (3) ARCO “spark” logos totally approximately 21 sq. ft.; 6. a 1.5inch tall blue LED strip light around the canopy; and 7. an area near the western extent of the property facing Combie Road for a future community monument sign. In total the proposed signage consists of approximately 711 sq. ft. of advertising (See Figure 4. Sign Plan. Note: Sign plan does not reflect specific project architecture).

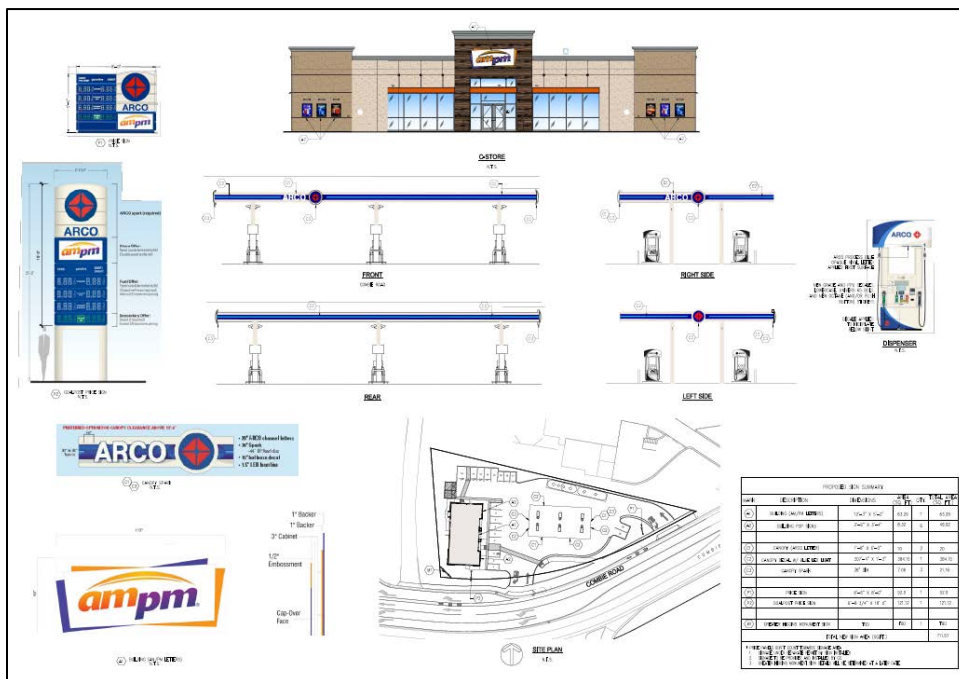


Figure 4. Preliminary Sign Plan

In addition to minimal sign lighting, the project proposes to install six (6) parking lot pole lights with a height of (12-feet), thirteen (13) façade LED wall mount lights that provide security lighting around the building; and ten (10) lights under the fuel canopy. Except for the blue LED light strip on the canopy all light fixtures are downward facing and fully shielded and utilize efficient LED bulbs. The parking lot lighting and wall mounted lighting style are shown in Figure 5 below.



**Figure 6. Parking Lot and Wall Lighting Fixtures**

The proposed building frontage is orientated to the east, facing Combie Road with the rear of the building facing State Route 49. Project architecture for the proposed ARCO AM/PM convenience store utilizes a neutral color pallet like other businesses in the area including those directly to the south across Combie Road. To break up the massing of the proposed building, several architectural treatments are provided including but not limited to: wall variations with two colors of smooth stucco siding (Main Body: Benjamin Moore, 1030 “Brandy Cream;” and Corner Walls, 1077 Benjamin Moore, “Great Plains Gold”), a Concrete Masonry Unit- Cemex Las Vegas Block Series, in “Anthem Spilt Face” colored entry way with a parapet cap that surrounds the aluminum double door. Panelized Stone Veneer Cladding-Morton Stone in “Light Grey Mix” wainscoting is provided on the bottom third of the building. Standing seam metal roofed canopies cover the storefront systems windows that frame the entry way. Other details include standing seam metal mansard roofs on each of the four corner parapets and faux glazing units (faux windows) are provided on the upper half of each corner (3 each on the east and west facing sides and on each on the north and south facing sides). Two steel lattice structures, a permanent ladder, door access for the main switch gear and a single aluminum door break up the massing of the rear (west facing) side of the building. To enhance the aesthetic of the proposed retaining walls, the project utilizes Aluminum Composite, Alucobond in “Rustic Walnut” color as facing on these features. The trash enclosure is building out of CMU block assumed to be “Anthem Split Face” color with a solid vertical seam access door. The project proposes in utilize roof mounted mechanical system installed in roof cavity screened by the parapet walls. The fueling station canopy will utilize similar color scheme and materials as the convenience store, including a color matching standing seam metal mansard style roof with trim and 10-foot tall, panelized stone veneer columns that match are of the same material as the wainscoting on the building. See Figures 6-10 for Architectural Renderings.

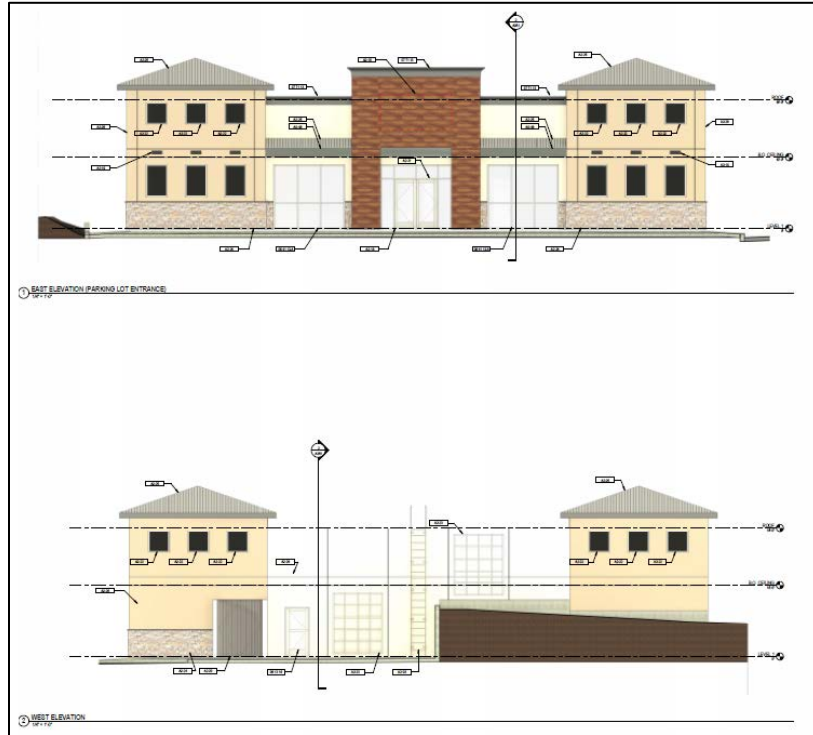


Figure 6. East and West Elevations

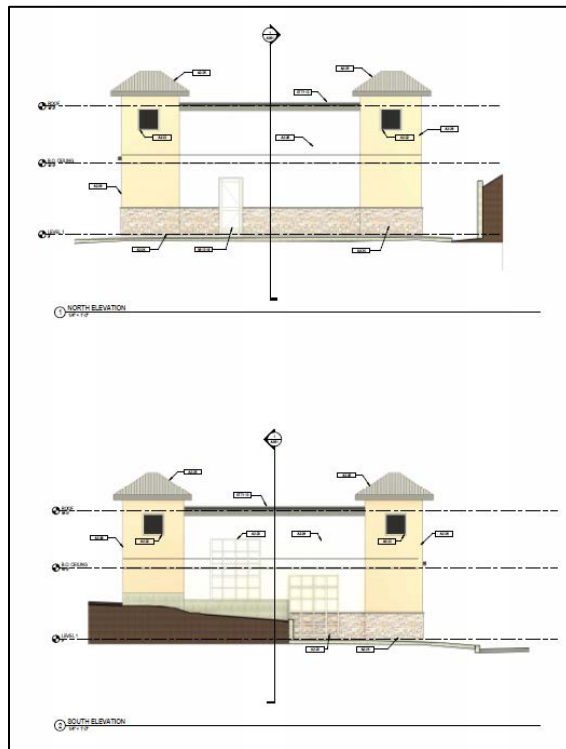


Figure 7. North and South Elevations

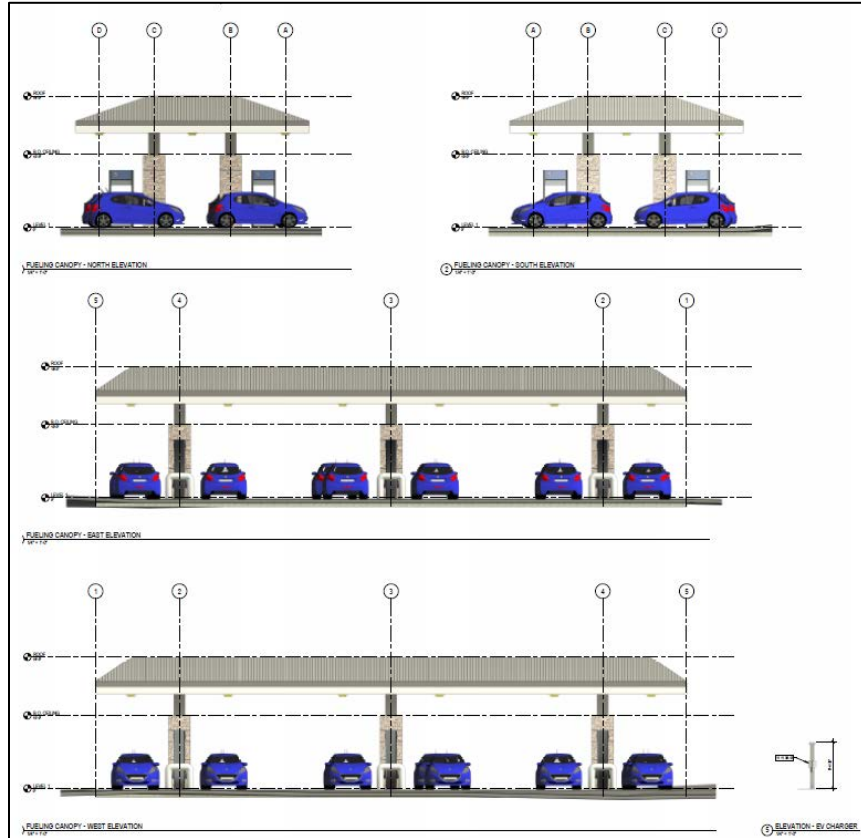
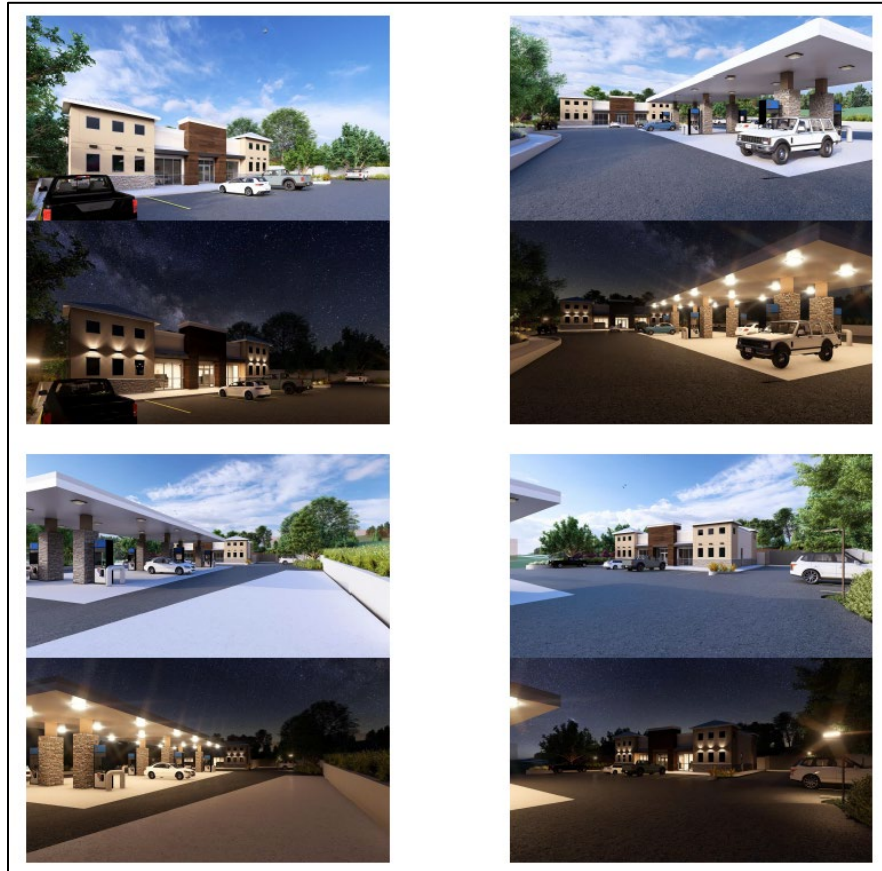


Figure 8. Fueling Canopy Elevations



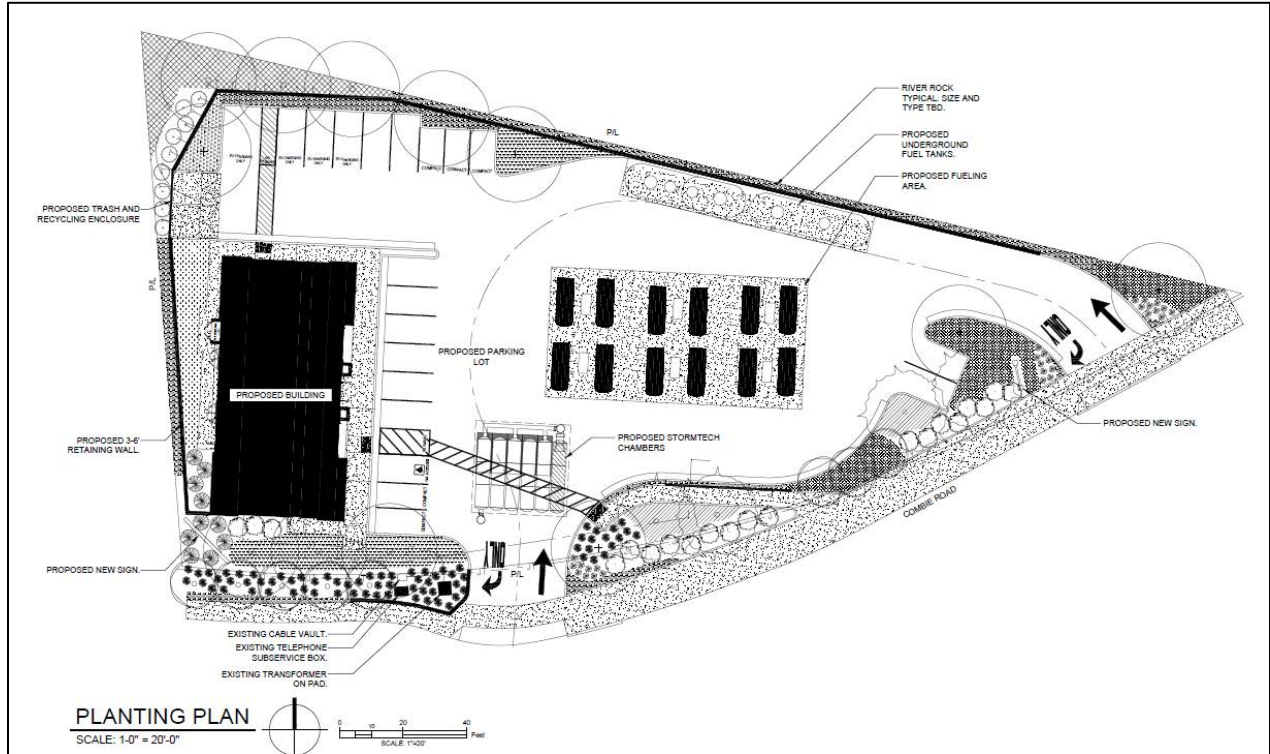
Figure 9. 3-D Views- Architecture Rendering



**Figure 10. 3-D Views- Architecture Rendering with Night View**

The project proposes approximately 72% of the site as impervious surface, including asphalt (46%), concrete (17%) and buildings (9%). The remaining 28% of the site will be landscape with typically commercial landscaping focused on providing perimeter screening. The landscape plan prepared by a licensed landscape architect shows a total of twenty-four (24) 24-inch box trees, consisting of four separate species, two-hundred and nine (209) shrubs made up of seven different species all of which are a minimum size of 5-gallons at the time of planting and forty-eight (48) flowering perennials made up of four different species. The preliminary landscape plan details that the sites shade trees will provide 40% percent parking lot coverage within 15-years of building permit issuance, consistent with the Nevada County Code and that the project provides three-hundred and fifty-one (351) linear feet of street front landscaping consisting of 17-trees and a approximately 30-shurbs. See Figure 11. Preliminary Landscape Plan and Figure 12. Preliminary Landscape Plan- Plant Photo Catalog for additional detail.





### LANDSCAPING LEGEND

SYM	COMMON NAME	H2O	BOTANICAL NAME	QTY	SIZE	FORM / FUNCTION	MATURE HEIGHT X WIDTH
<b>TREES</b>							
	CHINESE PISTACHE	L	PISTACIA CHINENSIS	7	24 BOX	UPRIGHT TREE WITH BRIGHT FALL COLOR	30-35' X 20-30'
	AFGHAN PINE	L	PINUS ELДАРICA	5	24 BOX	UPRIGHT EVERGREEN TREE	40' X 30'
	MARINA STRAWBERRY TREE	L	ARBUTUS 'MARINA'	4	24' BOX	ROUNDED TREE WITH WHITE/PINK FLOWERS & PEELING BARK - EVERGREEN	20-25' X 25'
	WESTERN REDBUD MULTISTEM	VL	CERCIS OCCIDENTALIS MULTISTEM	8	24' BOX	SMALL MULTISTEM TREE WITH PINK FLOWERS	10-20' X 10-20'
<b>SHRUBS</b>							
	LITTLE JOHN DWARF BOTTLEBRUSH	L	MELALEUCA VIMINALIS 'LITTLE JOHN'	9	5 GAL	RED FLOWERING SHRUB	3' X 5'
	SUNSET ROCK ROSE	L	CISTUS X PULVERULENTUS 'SUNSET'	20	5 GAL	PINK FLOWERING SHRUB	2-3' X 6-8'
	PIGEON POINT COYOTE BUSH	L	BACCHARIS PILLULARIS	30	5 GAL	MASSING GROUND COVER SHRUB	1-2' X 8'
	PROSTRATE ROSEMARY	L	ROSMARINUS OFFICINALIS 'PROSTRATUS'	95	5 GAL	PURPLE FLOWERING GROUND COVER SHRUB	1-2' X 3'
	BLUE CHIP JUNIPER	L	JUNIPERUS HORIZONTALIS 'BLUE CHIP'	14	5 GAL	BLUE EVERGREEN GROUND COVER SHRUB	1' X 6-8'
	ROCK COTONEASTER	L	COTONEASTER HORIZONTALIS	39	5 GAL	FLOWERS AND BERRIES ON AN ARCHING GROUND COVER SHRUB	2-3' X 6-8'
	SCENTSATION HONEYSUCKLE	L	LONICERA PERICLYMENUM 'SCENTSATION'	2	15 GAL	YELLOW FLOWERING CLIMBER	8-10' X 5-6'
			4 X 4 RACK GROWN				
<b>PERENNIALS</b>							
	SUNDOWNER NEW ZEALAND FLAX	L	PHORMIUM 'SUNDOWNER'	10	5 GAL	STRUCTURAL ROSE PINK STATEMENT PLANT	6-10' X 4-6'
	LITTLE REV FLAX LILY	L	DIANELLA REVOLUTA 'LITTLE REV'	28	1 GAL	BLUE GREEN TEXTURAL FOLIAGE AS MASSING	2-4' X 1-2'
	PLATINUM BEAUTY LOMANDRA	L	LOMANDRA LONGIFOLIA 'PLATINUM BEAUTY'	73	1 GAL	GREEN AND WHITE TEXTURAL FOLIAGE	3' X 3'
	AFRICAN WHITE FORTNIGHT LILY	L	DIETES IRIDIODES	37	1 GAL	GRASSLIKE FOLIAGE WITH WHITE FLOWER	2-4' X 2-3'

**NOTES:**

- 1) ALL SUBSTITUTIONS TO BE COMPARABLE WITH CHARACTERISTICS OF SPECIFIED PLANT SPECIES
- 2) ALL REQUIRED TREES ARE TO BE A MINIMUM 15 GALLON CONTAINER SIZE AND ALL SHRUBS TO BE A MINIMUM 5 GALLON CONTAINER SIZE. ALL PROVIDED TREES ARE 24 INCH BOX AND ALL PROVIDED SHRUBS ARE 5 GALLON.
- 3) NO SPECIES COMPRISES OF MORE THAN 75% OF THE PLANTINGS IN EACH OF THE FOLLOWING CATEGORIES: CANOPY TREE, UNDER STORY TREE, AND SHRUBS.
- 4) A TOTAL OF 351 LINEAL FEET OF STREET FRONT IS PROVIDED. EACH 100 LINEAL FEET SHALL INCLUDE AT LEAST 5 TREES AND 5 SHRUBS. THEREFORE 17 TREES AND 17 SHRUBS ARE REQUIRED ALONG THE STREET FRONT. 17 TREES AND 30 +/- SHRUBS ARE PROVIDED.
- 5) SHADE TREES SHALL COVER 40% OF THE TOTAL PARKING AREA WITH TREE CANOPIES WITHIN 15 YEARS OF SECURING BUILDING PERMIT. 40% IS PROVIDED.

Figure 11. Preliminary Landscape Plan



**Figure 12. Preliminary Landscape Plan- Plant Photo Catalog**

Proposed Preliminary earthwork calculations estimate a cut of approximately 5,040 cubic yards and fill of 10 cubic yards. Excess soil will be transported with appropriate permitting to an appropriate location that will be determined at a later date. The project will also include extension of the existing pedestrian path way north of Combie Road along the project frontage. Water will be provided from the local Nevada Irrigation District and wastewater connected to the the Nevada County Sanitation District (LOP Zone 2).

**Other Permits that May be Necessary:**

1. Grading Permits and Buiding – Nevada County Building Department
2. Northern Sierra Air Quality Management District – Dust Control Plan
3. Construction Stormwater General Permit – California State Water Resources Control Board
4. National Pollutant Discharge Elimination System (NPDES) General Permit– California State Water Resources Control Board
5. Encroachment Permit – Nevada County Dept. of Public Works
6. CUPA Permits – Nevada County Dept. of Environmental Health

**Relationship to Other Projects:**

There are no directly related development projects known to this project. This scope of work is proposed with the intent to replace a vacant and unused building and to replace with a fueling station business near a state highway.

**Consultation with Native American Tribes:**

Pursuant to Assembly Bill 52, tribal consultation began October 06, 2023. Native American tribes traditionally and culturally affiliated with the project area were notified of the project and invited to consultation. No consultation was requested.

# Summary of Impacts and Proposed Mitigation Measures

## Environmental Factors Potentially Affected

All of the following environmental factors have been considered. Those environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Less Than Significant with Mitigation" as indicated by the checklist on the following pages.

✓	1. Aesthetics		2. Agricultural and Forestry Resources	✓	3. Air Quality
✓	4. Biological Resources	✓	5. Cultural Resources		6. Energy
✓	7. Geology and Soils		8. Green House Gas Emissions		9. Hazards and Hazardous Materials
✓	10. Hydrology and Water Quality		11. Land Use and Planning		12. Mineral Resources
✓	13. Noise		14. Population and Housing		15. Public Services
	16. Recreation		17. Transportation	✓	18. Tribal Cultural Resources
✓	19. Utilities and Service Systems		20. Wildfire	✓	21. Mandatory Findings of Significance

## Recommended Mitigation Measures

The following measures shall be implemented, and where appropriate, included as a note on construction plans as outlined in each.

### 1. Aesthetics

**Mitigation Measure 1A. Outdoor Light Fixtures.** All outdoor light fixtures shall be fully shielded and downward facing to eliminate glare and prevent light trespass onto neighboring properties. This shall include removing the unshielded 1.5-inch LED strip light from the canopy. Fixtures shall have high efficiency lamps. High pressure sodium, and mercury vapor light fixtures are prohibited.

**Timing:** Prior to building permit issuance

**Reporting:** Agency approval of permits or plans

**Responsible Agency:** Planning Department

**Mitigation Measure 1B. Final Photometric Plan.** The applicant shall provide a final lighting and photometric plan that demonstrates that all project lighting shall be maintained on site. This plan should include all project lighting including but not limited to parking and circulation lighting, wall lighting, sign lighting, landscaping lighting and fuel canopy lighting. Recommended methods for reducing potential light spill include, reducing the lumen output of proposed lighting systems, reducing the height of the proposed lights, reducing the number of proposed lights and relocating lights farther into the interior of the parcel.

**Timing:** Prior to building permit issuance

**Reporting:** Agency approval of permits or plans

**Responsible Agency:** Planning Department

### 3. **AIR QUALITY**

**Mitigation Measure 3A: Reduce Emissions During Construction.** The following are the minimum mitigation measures designed to help reduce project emissions related to construction. These measures shall be included as a note on all plans prior to issuance of all grading, improvement, and building permits:

- a. The mobile off-road construction equipment in use at any time on the project shall be equipped with Tier 4 engines.
- b. Construction equipment idling time shall be limited to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). All construction equipment shall also be maintained and properly tuned in accordance with manufacturer's specifications. Clear signage shall be provided for construction workers at all access points.
- c. In addition to these measures, all statewide air pollution control regulations shall be followed, including diesel regulations (which may be accessed at [www.arb.ca.gov/diesel/diesel.htm](http://www.arb.ca.gov/diesel/diesel.htm)).

**Timing:** Prior to the issuance of building/grading permits and during construction

**Reporting:** Permit issuance

**Responsible Agency:** Planning Department / NSAQMD

#### **Mitigation Measure 3B: Minimize Dust to Control Asbestos Exposure.**

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The California Code of Regulations Title 17 Section 93105 has specific measures for coping with naturally occurring asbestos (NOA) at construction sites that are under one acre in size. Title 17 states that if any portion of the disturbed land is located in a geographic ultramafic rock unit, and if a geologic study has not been performed and submitted for an exemption, then the specific measures apply. According to the Geotechnical Report for this this property, "the referenced geologic map indicates that the project site is likely underlain by amphibolite, an ultramafic rock often associated with naturally occurring asbestos (NOA)." Therefore, the following Title 17 requirements must be met to minimize air entrainment of asbestos particles.

- a. Construction vehicle speed at the work site must be limited to fifteen (15) miles per hour or less;
- b. Prior to any ground disturbance, sufficient water must be applied to the area to be disturbed to prevent visible emissions from crossing the property line;

- c. Areas to be graded or excavated must be kept adequately wetted to prevent visible emissions from crossing the property line;
- d. Storage piles must be kept adequately wetted, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile;
- e. Equipment must be washed down before moving from the property onto a paved public road;
- f. Visible track-out on the paved public road must be cleaned using wet sweeping or a HEPA filter equipped vacuum device within twenty-four (24) hours.

**Timing:** *Prior to issuance of Grading/Improvement/Building permits*

**Reporting:** *Agency approval of future grading and improvement permits*

**Responsible Agency:** *Planning Department / NSAQMD*

**Mitigation Measure 3C: Naturally Occurring Asbestos.** According to the California Code of Regulations Title 17 Section 93105 (b)(1), State asbestos regulations apply if “Any portion of the area to be disturbed is located in a geographic ultramafic rock unit...” Therefore, there are two options moving forward as detailed below. An approved exemption request or Asbestos Dust Mitigation Plan shall be achieved from NSAQMD and then submitted to the Planning Department prior to issuance of grading permits.

1. The applicant can engage a registered geologist to conduct an evaluation of the property. If this evaluation determines that no serpentine or ultramafic rock is likely to be found in the area to be disturbed, the applicant can request an exemption from the Air Pollution Control Officer of the NSAQMD. (See Title 17 Section 93105 (c)(1)(A) for report requirements.)

Or,

2. The applicant can proceed as if all disturbed soils contain asbestos and subsequently incorporate the required asbestos dust mitigation measures into the project documents and practices, as found in CCR Title 17 Section 93105(e)(2) and (4) etc. This includes submitting and acquiring NSAQMD approval of an Asbestos Dust Mitigation Plan (ADMP) before the start of any construction or grading activity. The ADMP must include:

- a. Concrete measures for soil track-out prevention and control
- b. Dust prevention measures for active construction areas and storage piles
- c. Dust minimization from unpaved roads, parking lots, or staging areas, including a
- d. Limit onsite vehicle speeds to 15 mph or less
- e. All offsite transport control measures
- f. Methods of post construction stabilization (in perpetuity)
- g. All monitoring and reporting to be performed.

Please see the above-mentioned Title 17 sections for specific requirements in each of these categories.

**Timing:** *Prior to issuance of the grading permits and improvement plans and during grading activity*

**Reporting:** *Agency approval of future grading and improvement permits*

**Responsible Agency:** *Planning Department / NSAQMD*

**Mitigation Measure 3D: Use Alternative Methods to Open Burning for Vegetation Disposal.** The following note shall be included on all grading and improvement plans: "Open burning of site-cleared vegetation is prohibited. Among suitable alternatives are chipping, grinding, hauling to an approved disposal site, cutting for firewood, and conversion to biomass fuel."

**Timing:** *Prior to issuance of grading and improvement permits*

**Reporting:** *Permit issuance*

**Responsible Agency:** *Planning Department / NSAQMD*

**Mitigation Measure 3E: Demolition Notification.** The applicant will submit the required notification to the Environmental Protection Agency (EPA) for the proposed building notification attesting to the presence/absence of regulated asbestos containing material in the building, and its proper handling."

**Timing:** *Prior to building demolition and prior to issuance of Grading/ Improvement/ Building permits*

**Reporting:** *Agency approval of future grading and improvement permits*

**Responsible Agency:** *Planning Department / NSAQMD*

**Mitigation Measure 3F: Permitting with NSAQMD.** This process starts with the submission of an Authority to Construct (ATC) application and fee. The application can be found on our website here: <https://www.myairdistrict.com/files/53da1c5e8/VR-AC-fillable-1.pdf> .

The applicant must click on the fillable form, fill it out, and send it via mail, or email to [office@myairdistrict.com](mailto:office@myairdistrict.com) . The fee is listed here: <https://www.myairdistrict.com/fee-schedule-page> . An Advance Demolition notification must be submitted to the Environmental Protection Agency, prior to the demolition of the existing building. The form can be found at this website: <https://ww2.arb.ca.gov/our-work/programs/asbestos-neshap-program/asbestos-neshap-notification-renovation-or-demolition> .

**Timing:** *Prior to issuance of grading and improvement permits*

**Reporting:** *Permit issuance*

**Responsible Agency:** *Planning Department / NSAQMD*

**Mitigation Measure 3G: Prepare a Dust Control Plan.** Prior to issuance of grading and improvement permits, submit a Dust Control Plan to Northern Sierra Air Quality Management District, if more than one (1) acre of natural surface area is to be altered or where the natural ground cover is removed, and gain their approval. The disturbance of natural surface area includes any clearing or grading. Include the approved Dust Control Plan on the project plans using clear phrasing and enforceable conditions, under its own heading. Provide evidence of NSAQMD approval to Nevada County with permit application submittal. The plan shall include but not be limited to the following measures, which shall also be included on all construction plans:

- a. Contact details must be provided for the person/s responsible for ensuring that all dust control measures are performed in a timely manner during all phases of project construction.

- b. All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.
- c. All land clearing, grading, earth moving, and excavation activities on the project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 miles per hour.
- d. All inactive portions of the site shall be covered, seeded, or watered until a suitable cover is established.
- e. All material transported off-site shall be either sufficiently watered, or securely covered to prevent it being entrained in the air, and there must be a minimum freeboard of six inches maintained in the bed of the transport vehicle.
- f. All areas with vehicle traffic shall be watered or have dust palliative applied as necessary to minimize dust emissions.
- g. The construction contractor shall limit vehicle speeds on unpaved roads to a speed of 15 mph.
- h. Paved streets adjacent to the project shall be swept or washed at the end of each day, or as needed to remove excessive accumulation of silt and/or mud which may have resulted from activities at the project site.

**Timing:** Prior to issuance of grading permits and improvement plans

**Reporting:** Provide documentation of approval form NSAQMD

**Responsible Agency:** Planning Department / NSAQMD

#### 4. **BIOLOGICAL RESOURCES**

##### **Mitigation Measure 4A: Avoid Impacts to Nesting Birds.**

The following note shall be added to all improvement/grading/construction plans:

Impacts to nesting raptors, including special-status avian or bat species, and migratory birds can be avoided by removing vegetation before the start of the nesting season, or delaying removal until after the end of the nesting season.

- a. If construction is to take place during the nesting season (February 1 - August 31), including any ground disturbance, preconstruction surveys for nesting raptors, migratory birds and special-status bats shall be conducted within 7 days prior to the beginning of construction activities by a California Department of Fish and Wildlife (CDFW) approved biologist and in accordance with California and Federal requirements.
- b. Tree removal and construction shall not take place during the breeding season (February 1 –August 31), unless supported by a report from the qualified biologist verifying that birds, including raptors, are not nesting in the trees proposed for removal or disturbance.
- c. If active nests are found, temporary nest disturbance buffers shall be established; a quarter-mile buffer for nesting raptors and, a 200-foot buffer if active migratory bird nests are found.
- d. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then an onsite biologist/monitor experienced with raptor behavior, shall be retained by the project proponent to monitor the nests, and shall, along with the project proponent, consult with the CFWD to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed to proceed within the

temporary nest disturbance buffer if raptors are not exhibiting agitated behavior such as defensive flights at intruders, getting up from a brooding position, or flying off the nest. The designated biologist/monitor shall be onsite daily while construction related activities are taking place and shall have the authority to stop work if raptors are exhibiting agitated behavior. In consultation with the CDFW and depending on the behavior of the raptors, over time the biologist/monitor may determine that monitoring is no longer necessary, due to the raptors' acclimation to the activities.

- e. Any trees containing nests that must be removed as a result of development shall be removed during the non-breeding season. However, the project proponent shall be responsible for off-setting the loss of any nesting trees. The project proponent and biologist/monitor shall consult with CDFW and the extent of any necessary compensatory mitigation shall be determined by CDFW. Previous recommended mitigation for the loss of nesting trees has been at a ratio of three trees for each nest tree removed during the non-nesting season.

**Timing:** *Prior to building permit issuance and during construction*

**Reporting:** *Agency approval of permits or plans*

**Responsible Agency:** *Planning Department / CDFW*

## 5. CULTURAL RESOURCES

**Mitigation Measure 5A. Halt work and contact the appropriate agencies if human remains or cultural materials are discovered during project construction.** All equipment operators and employees involved in any form of ground disturbance at any phase of project improvements shall be advised of the remote possibility of encountering subsurface cultural resources. If such resources are encountered or suspected, work shall be halted immediately and the Nevada County Planning Department, United Auburn Indian Community of the Auburn Rancheria, and any other interested and affected tribe shall be contacted. A professional archaeologist shall be retained by the developer and consulted to access any discoveries and develop appropriate management recommendations for archaeological resource treatment. If bones are encountered and appear to be human, California Law requires that the Nevada County Coroner and the Native American Heritage Commission be contacted and, if Native American resources are involved, Native American organizations and individuals recognized by the County shall be notified and consulted about any plans for treatment. A note to this effect shall be included on the grading and construction plans for each phase of this project.

**Timing:** *Prior to the issuance of building/grading permits and during construction*

**Reporting:** *Agency approval of permits or plans*

**Responsible Agency:** *Planning Department*

## 7. GEOLOGY AND SOILS

**Mitigation Measure 7A: Implement the Recommendations of the NV5 Geotechnical Report:** To ensure that the project does not result in a significant impact to geology and soils, the applicant shall include the recommendations of the NV5 Geotechnical Report (2023) incorporated herein by reference, provide in Appendix B of this initial study and kept on file with the Planning Department, in the project design and include these recommends in all improvement plans (demolition, grading and construction permits, if applicable).



Final recommendations are specific to: Clearing and Grubbing, Cut Slope Grading, Soil Preparation for Fill Placement, Fill Placement, Rock Fill Placement, Differential Fill Placement, Fill Slope Grading, Erosion Controls, Underground Utility Trenching, Construction Dewatering, Surface Water Drainage, Soil Corrosion Potential, Grading Plan Review and Construction Monitoring, Seismic Design Criteria, Foundations, Slab on Grade Floor Systems, Retaining Wall Design Criteria, and Pavement Design.

**Timing:** *Prior to issuance of grading or improvement permits/During Construction*

**Reporting:** *Approval of permits or plans/During Construction*

**Responsible Agency:** *Building Department*

## 10. HYDROLOGY AND WATER QUALITY

**Mitigation Measure 10A: Best Management Practices.** Implement the following BMPs to minimize construction related impacts to water quality. The following BMPs shall be incorporated into all Contract Documents and Construction Plans for the project and implemented by the contractor to protect water quality:

- a. Construction crews shall be instructed in preventing and minimizing water pollution on the job.
- b. Interim erosion control measures may be needed and shall be installed during construction to assure adequate erosion control facilities are in place at all times.
- c. Straw or rice mulch may be used if needed with a tackifier.
- d. All earth moving or excavation activities shall cease when winds exceed 20 mph.
- e. Haul trucks shall be covered with tarpaulins or other effective covers at all times.
- f. Use broom and shovels when possible to maintain a clean site. Use of a hose is not recommended. Introducing water as a cleanup method adds to water pollution.
- g. Designate a concrete washout area, as needed; to avoid wash water from concrete tools or trucks from entering storm drain systems. Maintain washout area and dispose of concrete waste on a regular basis.
- h. Establish a vehicle storage, maintenance, and refueling area, as needed, to minimize the spread of oil, gas, and engine fluids. Use of oil pans under stationary vehicles is strongly recommended.
- i. Dust control measures shall conform to **Mitigation Measure 3A:** Control dust during project construction.

**Timing:** *Prior to grading/building permit issuance and during construction*

**Reporting:** *Agency approval of permits or plans*

**Responsible Agency:** *Planning Department*

**Mitigation Measure 10B: Provide copies of BMPs.** Copies of the project's Mitigation Monitoring and Reporting Program and all BMPs shall be supplied to the Contractor(s) and their workers to assure compliance with mitigation measures during construction.

**Timing:** *Prior to grading/building permit issuance and during construction*

**Reporting:** *Agency approval of permits or plans*

**Responsible Agency:** *Planning Department*

## 13. NOISE

**Mitigation Measure 13A: Limit Construction Work Hours to 7:00 a.m. to 7:00 p.m. Monday-Saturday.** During grading and construction, work hours shall be limited from 7:00

a.m. to 7:00 p.m., Monday - Saturday. Prior to issuance of grading and building permits, improvement plans shall reflect hours of construction.

**Timing:** *Prior to Issuance of Grading and Building Permits*

**Reporting:** *Planning Department Approval of Grading and Building Permits*

**Responsible Agency:** *Planning Department*

## 18. TRIBAL CULTURAL RESOURCES

**Mitigation Measure 18A: Unanticipated Tribal Cultural Resources.** The following mitigation measures shall be required and shall be included as notes on all future site plans: If any suspected Tribal Cultural Resources (TCRs) are discovered during ground disturbing construction activities, all work shall cease within 100-feet of the find, or an agreed upon distance based on the project area and nature of the find. A Tribal Representative from a California Native American tribe that is traditionally and culturally affiliated with a geographic area shall be immediately notified and shall determine if the find is a TCR (PRC §21074). The Tribal Representative will make recommendations for further evaluation and treatment as necessary.

When avoidance is infeasible, preservation in place is the preferred option for mitigation of TCRs under CEQA and UAIC protocols, and every effort shall be made to preserve the resources in place, including through project redesign, if feasible. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, or returning objects to a location within the project area where they will not be subject to future impacts. Permanent curation of TCRs will not take place unless approved in writing by UAIC or by the California Native American Tribe that is traditionally and culturally affiliated with the project area.

The contractor shall implement any measures deemed by the CEQA lead agency to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including, but not limited to, facilitating the appropriate tribal treatment of the find, as necessary. Treatment that preserves or restores the cultural character and integrity of a TCR may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. Work at the discovery location cannot resume until all necessary investigation and evaluation of the discovery under the requirements of the CEQA, including AB52, have been satisfied.

**Timing:** *Prior to issuance of grading/improvement/building permits and throughout construction*

**Reporting:** *Planning Department Approval of Grading and Construction Permits*

**Responsible Agency:** *Planning Department*

**Mitigation:** Also See **Mitigation Measures 5A**

## 19. UTILITIES AND SERVICE SYSTEMS

**Mitigation Measure 19A: Appropriately Dispose of Vegetative and Toxic Waste:** Industrial toxic waste (petroleum and other chemical products) is not accepted at the McCourtney Road transfer station and if encountered, shall be properly disposed of in compliance with

existing regulations and facilities. This mitigation measure shall be included as a note on all improvement plans, which shall be reviewed and approved by the Planning Department prior to permit issuance.

**Timing:** *Prior to issuance of grading or improvement permits and during construction*

**Reporting:** *Agency approval of permits or plans*

**Responsible Agency:** *Planning Department*

## Mitigation and Monitoring Matrix

MEASURE #	MONITORING AUTHORITY	IMPLEMENTATION TIMING
1A	Planning Department	Prior to issuance of building permits
1B	Planning Department	Prior to issuance of building permits
3A	Planning Department / NSAQMD	Prior to the issuance of building/grading permits and during construction
3B	NSAQMD / Planning Department	Prior to issuance of grading and improvement permits
3C	NSAQMD / Planning Department	Prior to issuance of grading and improvement permits
3D	Planning Department / NSAQMD	Prior to issuance of grading and improvement permits
3E	Planning Department / NSAQMD	Prior to building demolition / issuance of grading and improvement permits
3F	Planning Department / NSAQMD	Prior to building demolition / issuance of grading and improvement permits
3G	Planning Department / NSAQMD	Prior to building demolition / issuance of grading and improvement permits
4A	Planning Department / CDFW	Prior to the issuance of building/grading permits and during construction
5A	Planning Department	Prior to the issuance of building/grading permits and during construction
7A	Building Department	Prior to issuance of grading or improvement permits and during construction
10A	Planning Department	Prior to grading/building permit issuance and during construction
10B	Planning Department	Prior to grading/building permit issuance and during construction
13A	Planning Department	Prior to the issuance of building/grading permits and during construction
18A	Planning Department	Prior to grading/building permit issuance and during construction
19A	Planning Department	Prior to grading/building permit issuance and during construction

# Initial Study and Checklist

## Introduction

This checklist is to be completed for all projects that are not exempt from environmental review under the California Environmental Quality Act (CEQA). CEQA requires a brief explanation for answers to the Appendix G: Environmental Checklist except “No Impact” responses that are adequately supported by noted information sources. Answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. This Initial Study uses the following terms to describe the level of significance of adverse impacts. These terms are defined as follows.

- **No Impact:** An impact that would result in no adverse changes to the environment.
- **Less than Significant Impact:** An impact that is potentially adverse but does not exceed the thresholds of significance as identified in the impact discussions. Less than significant impacts do not require mitigation.
- **Less than Significant with Mitigation:** An environmental effect that may cause a substantial adverse change in the environment without mitigation, but which is reduced to a level that is less than significant with mitigation identified in the Initial Study.
- **Potentially Significant Impact:** An environmental effect that may cause a substantial adverse change in the environment; either additional information is needed regarding the extent of the impact to make the significance determination, or the impact would or could cause a substantial adverse change in the environment. A finding of a potentially significant impact would result in the determination to prepare an EIR.

## 1. Aesthetics

**Existing Setting:** The project parcel is an approximately 0.81-acres comprised of slightly sloped land situated immediately north of Combie Road, a short distance (100± feet) east of State Route 49, within the southwestern portion of unincorporated Nevada County. The project parcel falls within a County designated Scenic Corridor combining district. Directly north of the project parcel, is the Higgins Fire Protection District firehouse that abuts the shared property boundary. The project parcel is developed with an existing 12-stall asphalt parking lot and an approximately 1,297 sq. ft. commercial office building, all of which have vacant and unused for over a decade. Surrounding the perimeter of existing development is natural occurring vegetation, a majority of which are non-native grasses. The project site has fifteen trees, consisting of sycamore and blue oak trees. Roughly 12,000 sq. ft. of the project parcel is covered with existing development. Existing topography generally slopes from the northwest corner of the property line towards Combie Road, with slopes ranging from 5-20%.

Views of the project site are predominantly seen travelling north on Highway 49 and/or travelling east and west on Combie Road. Combie Road is a Nevada County maintained road and will be the direct access road for ingress/egress from the project parcel. The adjacent portion of State Highway 49 is not listed as a designated Scenic Highway.

The location of the project parcel falls within the entrance into the Lake of the Pines Village Center, a commercial corridor for the surrounding community, offering retail and commercial services to local residents.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Have a substantial adverse effect on a scenic vista?			✓		A, 1-3
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			✓		A, 1-3
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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				✓	A, 1-3
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		✓			A

**Impact Discussion:**

1a-c. The project parcel is zoned as “C2-SC-SP”, Community Commercial/ Scenic Corridor/ Site Performance. The intent of the Scenic Corridor overlay is to protect and preserve scenic resources of areas which are adjacent to highways and roads which have been identified as having high scenic quality. A Scenic Corridor Analysis (SCA) is required for all applicable development, to include new development requiring a Development Permit, such as the subject proposal. The SCA provided as part of project submittal, includes an aesthetics analysis, which describes the scenic and/or historic resources of the project setting, how the development will ensure compatibility with the scenic nature of the surrounding area, and how it will minimize impacts to, identified scenic resources. As required, the purpose of the analysis is to show how the proposed modified project will be consistent with the Scenic Corridor Analysis. The Site Performance (SP) overlay designation intends to further refine site development standards, indicating that the property is subject to the applicability of the Greater Higgins Area Plan design criteria. The Greater Higgins Area Plan overlays the project parcel and surrounding community. The intent of the area plan is to establish comprehensive integration of a planned vision for housing, culture, and commerce, guiding proposed development with an established footprint to suit the character of the surrounding area.

A scenic vista is typically considered to be a view that possesses visual and aesthetic qualities of high value to the public. Scenic vistas can provide views of natural features or significant structures and buildings. As discussed above, the project site consists of a unused building and parking lot with overgrown landscaping that has not been attended to

for some time. The proposed project will consist of a typical ACRO AM/PM gas station facility that is designed with similar features as the developed shopping center located to the south of the proposed project across Combie Road as described in the project description above.

Removal of the dated and unused commercial building, the worn parking lot, and overgrown vegetation has the potential to provide an aesthetic improvement when replaced with new development that will meet contemporary design standards, utilizing design details from surrounding businesses and adding new screening landscaping along the southern and western property boundaries. Additionally, the adjacent portion of State Highway 49 is not a listed scenic highway, per State Department of Caltrans. With the surrounding area being considered semi-urbanized, the addition of a typical ARCO AM/PM gas station utilizing natural earth tones and design details like the surrounding developed are the project is anticipated to result in **less than significant impacts** to the scenic resources in the area and will blend in with the surrounding built environment. Further, the proposed project is consistent with the sites General Plan land use and Zoning designations which allow fuel stations and convenience stores with approval of a discretionary development permit.

- 1d. The project will create a new source of lighting that was not previously associated with the property. Although the site is developed with an existing small commercial office building, it has not been used for nearly a decade or more. New lighting associated with the building will include fueling canopy lighting, wall lighting, pole lighting within the parking and circulation areas, and interior building lighting that may be seen from building windows. This new source(s) of light may be considered a visual impact; however, it will be required to meet the Nevada County Code to ensure lighting is compatible with the surrounding area, including not allowing for light spill outside of the property boundaries. New proposed lighting will be energy efficient LED, will be downcast and directed downwards in compliance with local site development standards to prohibit light trespass and limit unnecessary light pollution, except for the blue LED strip light around the fueling canopy. Having all commercial lighting be downward facing and fully shielded is standard for all commercial development in Nevada County and generally will be ensured by a standard condition of approval for the project.

The project's submitted lighting and photometric plan, prepared by ARB Engineering, dated August 15, 2023, analyzes details related to potential light spill off the project site resulting from the proposed development. As designed, there are a few areas, mostly along Combie Road that show some minor light spill into the right of way. In addition, the proposed LED strip light around the fueling canopy is inconsistent with County Standards by not being fully shielded. While it is anticipated that this lighting feature is not a part of the final architecture, it is shown on the submitted sign plan. Therefore, **Mitigation Measure 1A** below requires removal of the canopy strip light and **Mitigation Measure 1B** requires a final photometric plan to be submitted prior to building permit issuance, that demonstrates that all lighting can be kept on site and recommends providing bulbs with less intensity, reduction in height of lighting fixtures or removal of light standards to achieve this requirement. Similar to adjacent commercial development, local lighting standards will be required to be met for this parcel. Overall, proposed lighting will not substantially and adversely impact day and nighttime views in the area. With the incorporation of local lighting standards/design criteria, appropriate environmental review/consistency with like

projects in the area, potential impact from proposed lighting is anticipated to be **less than significant with mitigation**.

**Mitigation:** To reduce potential light impacts the following mitigation measures shall be required:

**Mitigation Measure 1A. Outdoor Light Fixtures.** All outdoor light fixtures shall be fully shielded and downward facing to eliminate glare and prevent light trespass onto neighboring properties. This shall include removing the unshielded 1.5-inch LED strip light from the canopy. Fixtures shall have high efficiency lamps. High pressure sodium, and mercury vapor light fixtures are prohibited.

**Timing:** Prior to building permit issuance

**Reporting:** Agency approval of permits or plans

**Mitigation Measure 1B. Final Photometric Plan.** The applicant shall provide a final lighting and photometric plan that demonstrates that all project lighting shall be maintained on site. This plan should include all project lighting including but not limited to parking and circulation lighting, wall lighting, sign lighting, landscaping lighting and fuel canopy lighting. Recommended methods for reducing potential light spill include, reducing the lumen output of proposed lighting systems, reducing the height of the proposed lights, reducing the number of proposed lights and relocating lights farther into the interior of the parcel.

**Timing:** Prior to building permit issuance

**Reporting:** Agency approval of permits or plans

**Responsible Agency:** Planning Department

## 2. Agricultural and Forestry Resources

**Existing Setting:** The primary project site setting is developed and considered Urban and Built-up Land, within a semi-urban residential and mixed-use community, with an existing commercial corridor adjacent southeast of the project parcel. There are no active Williamson Act Contracts on the project parcel. There is no Timberland Production Zone (TPZ) or Forest (FR) zoning on the project parcels, and no forestry uses are existing on these parcels or in the project vicinity. The project site is designated as Urban and Built-up Land, per the California Department of Conservation (California Important Farmland, 2023).

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
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?				✓	A, 4,5
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓	A, 4,5

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resource 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))?				✓	A, 4
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓	4
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?				✓	A, 4

**Impact Discussion:**

- 2a. There is no presence of prime farmland, unique farmland, or farmland of State importance, nor the proposal of conversion if such, on the subject project parcel. Therefore, **no impact** to protected farmlands is anticipated.
- 2b. There are no Williamson Act Contracts on the subject project parcel. The subject parcel has a zoning designation of Community Commercial, agricultural zoning is not tied to the property. Therefore, **no impact** to agricultural use or Williamson Act Contracts are anticipated.
- 2c,d,e. The subject property is not zoned for forest use/land, no change of zoning designation is requested that would otherwise cause rezoning of forest land. The project will not result in loss of forest land or conversion of forest land to non-forest use. The property is designated as Urban and Built-up land and would not result in the conversion of farmland to non-agriculture land use. There are no aspects of the project proposal that could result in conversion of farmland or forest land. Therefore, there is **no impact** to forest land or timberland.

**Mitigation Measures:** None required.

### 3. Air Quality

**Existing Setting:** Nevada County is located in the Mountain Counties Air Basin (MCAB). The MCAB includes the central and northern Sierra Nevada mountain range with elevations ranging from several hundred feet in the foothills to over 6,000 feet above mean sea level along the Sierra Crest. The MCAB generally experiences warm, dry summers and wet winters. Ambient air quality in the air basin is generally determined by climatological conditions, the topography of the air basin, and the type and amount of pollutants emitted. The Northern Sierra Air Quality Management District has responsibility for controlling air pollution emissions including “criteria air pollutants” and “toxic air pollutants” from direct sources (such as factories) and indirect sources (such as land-use



projects) to improve air quality within Nevada County. To do so, the District adopts rules, regulations, policies, and programs to manage the air pollutant emissions from various sources, and also must enforce certain statewide and federal rules, regulations and laws.

The proposed project is located in the Sierra Nevada foothills, within a rural area surrounded by low-density residential properties and overall GHG outputs are expected to be minimal. California is divided geographically into air basins for the purpose of managing the air resources of the State on a regional basis. An air basin generally has similar meteorological and geographic conditions throughout. Nevada County and Placer County are both within the Mountain Counties Air Basin. Nevada County is within the jurisdiction of the Northern Sierra Air Quality Management District (NSAQMD), but the NSAQMD has not adopted thresholds of significance for greenhouse gases. However, Placer County Air Pollution District (APCD) has adopted thresholds of significance for greenhouse gases. Due to greenhouse gas emissions being not only a regional, but also a global concern, with the similarities between neighboring air districts, it was determined that the Placer APCD thresholds are a relevant standard for the determination of significance. The thresholds adopted by Placer County APCD include a bright-line threshold of 10,000 metric tons of Carbon dioxide equivalent per year and a De Minimis level of 1,100 metric tons of carbon dioxide per year (MT CO<sub>2</sub>e/yr).

The Federal Clean Air Act of 1971 established national ambient air quality standards (NAAQS). These standards are divided into primary and secondary standards. Primary standards are designed to protect public health, and secondary standards are designed to protect plants, forests, crops, and materials. Because of the health-based criteria identified in setting the NAAQS, the air pollutants are termed "criteria" pollutants. California has adopted its own ambient air quality standards (CAAQS). Criteria air pollutants include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and particulate matter. CAAQS include the NAAQS pollutants, in addition to visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. A nonattainment area is an area where a criteria air pollutant's concentration is above either the federal and/or state ambient air quality standards. Depending on the level of severity, a classification will be designated to a nonattainment area. Failure of a state to reach attainment of the NAAQS by the target date can trigger penalties, including withholding of federal highway funds. Table 1 shows the current attainment/nonattainment status for the federal and state air quality standards in Nevada County.

Nevada County has two federally recognized air monitoring sites: The Litton Building in Grass Valley (fine particulate matter, also called PM<sub>2.5</sub>, and ozone) and the fire station in downtown Truckee (PM<sub>2.5</sub> only). For eight-hour average ozone concentrations, Nevada County is serious nonattainment for both the 2008 and 2015 state and federal ozone standards of 75 and 70 parts per billion, respectively (Table 1). Unlike other pollutants, ozone is not typically released directly into the atmosphere from any sources. Ozone is created by the interaction of Nitrogen Oxides and Reactive Organic Gases (also known as Volatile Organic Compounds) in the presence of sunlight, especially when the temperature is high. The major sources of Nitrogen Oxides and Reactive Organic Gases, known as ozone precursors, are combustion sources such as factories, automobiles and evaporation of solvents and fuels. Ozone is mainly a summertime problem, with the highest concentrations generally observed in July and August, when the days are longest, especially in the late afternoon and evening hours. Ozone is considered by the California Air Resources Board to be overwhelmingly transported to Nevada County from the Sacramento Metropolitan area and, to a lesser extent, the San Francisco Bay Area. This recognition of

overwhelming transport relieves Nevada County of CAAQS-related requirements, including the development of CAAQS attainment plan with a “no-net-increase” permitting program or an “all feasible measures” demonstration.

For particulate matter, ambient air quality standards have been established for both PM10 and PM2.5. California has standards for average PM10 concentrations over 24-hour periods and over the course of an entire year, which are 50 and 20 µg/m<sup>3</sup>, respectively. (The notation “µg/m<sup>3</sup>” means micrograms of pollutant per cubic meter of ambient air.) For PM2.5, California only has a standard for average PM2.5 concentrations over a year, set at 12 µg/m<sup>3</sup>, with no 24-hour-average standard. Nevada County is in compliance with all of the federal particulate matter standards, but like most California counties it is out of compliance with the state PM10 standards. Particulate-matter is identified by the maximum particle size in microns as either PM2.5 or PM10. PM2.5, is mostly smoke and aerosol particles resulting from woodstoves and fireplaces, vehicle engines, wildfires, and open burning. PM-10 is a mixture of dust, combustion particles (smoke) and aerosols from sources such as surface disturbances, road sand, vehicle tires, and leaf blowers.

Further discussion of related project impacts related to greenhouse gas emissions is provided in Section 8 of this Initial Study.

**Table 1:** Attainment Status by Northern Sierra Air Quality Management District of State and Federal Air Quality Standards. In addition, the entire district is either Attainment or Unclassified for all State and Federal NO<sub>2</sub>, SO<sub>2</sub>, Pb, H<sub>2</sub>S, visibility reducing particles, sulfates, and vinyl chloride standards.

Pollutant	State Designation	Federal Designation
Ozone (O <sub>3</sub> )	Nevada County: Non-attainment (due to overwhelming transport)	2008 O <sub>3</sub> Standard (75 ppb) Western Nevada County: Serious Non-attainment; 2015 O <sub>3</sub> Standard (70 ppb) Western Nevada County: Serious Non-attainment;
PM <sub>10</sub>	Nevada County: Non-attainment	Unclassified
PM <sub>2.5</sub>	Nevada County: Unclassified	2012 Annual Standard (12µg/m <sup>3</sup> ) Nevada County: Unclassifiable/Attainment 2012 24-hour Standard (35µg/m <sup>3</sup> ) Unclassifiable/Attainment
CO	Nevada: Unclassified	Unclassifiable/Attainment

Ultramafic rock and its altered form, serpentine rock (or serpentinite), both typically contain asbestos, a cancer-causing agent. Ultramafic rock and serpentine are likely to exist in several areas of western Nevada County. The area of the project site is mapped as an area that is potentially likely to contain ultramafic rock (Geotechnical Engineering Report, NV5, 2023). Natural occurrences of asbestos are more likely to be encountered in, and immediately adjacent to areas of ultramafic rock.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Conflict with or obstruct implementation of the applicable air quality plan?			✓		A, B, 16-18
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?		✓			A, B, 16-18
c. Expose sensitive receptors to substantial pollutant concentrations?		✓			A, B, 16-18
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			✓		A, B, 16-18

**Impact Discussion:**

- 3a. The proposed project would not conflict with or obstruct implementation of an applicable air quality plan due to the project not exceeding the thresholds of significance adopted by the Northern Sierra Air Quality Management District (NSAQMD). A breakdown of anticipated project generated emissions (operational and construction phase) in relation to NSAQMD Level A Thresholds are referenced in Table 1 and Table 2, below. Pollutant emissions do not surpass outlined thresholds. Therefore, **a less than significant impact** is anticipated on the potential adoption or implementation of an air quality plan.
  
- 3b. Nevada County’s General Plan, Chapter 14 Air Quality Element, contains numerous policies to protect air quality in Nevada County. Apart from General Plan Air Quality Element Policy 14.7A, which requires compliance with Northern Sierra Air Quality Management District (NSAQMD) Rule 226, the Nevada County General Plan Air Quality Element policies are intended to apply to development that generates new residents or new employees. By assessing air pollution and emissions associated with the proposed project and recommending mitigation measures based on thresholds of significance established by the NSAQMD, the project as proposed would comply with NSAQMD regulations.

Title 17 of the California Code of Regulations (CCR) requires certain specific dust control measures for properties less than an acre that are in a geographic ultramafic rock unit. Driveway and land improvements serving the proposed parcels are not anticipated to exceed one acre, thus not triggering the requirement for a State Waterboard Permit (SWPP). Dust may be a potential impact during grading activities, a Dust Control Plan is required by the NSAQMD. Reasonable precautions may include watering vehicle traffic areas, contacting NSAQMD if a generator is proposed, or if demolition is proposed, per **Mitigation Measure 3G**. **Mitigation Measure 3B** is required to mitigate dust, with specific respect to the potential of asbestos being on the property. During the site investigation (NV5 Engineering, 2023), documented that no ultramafic rock, serpentine, or naturally occurring asbestos minerals were encountered; an investigation to rule out asbestos was not performed. However, a geologic map provided by NSAQMD referenced that the site could be within an area of known gabbro soils and ultramafic rock potential containing naturally occurring asbestos. Therefore, **Mitigation Measure 3C** is required to ensure that project result in an impact from disturbing potential naturally occurring asbestos and

requires a registered geologist to conduct an evaluation of the property and prepare an Asbestos Dust Mitigation Plan if found during the evaluation or request an exemption from NSAQMD if not found, prior to issuance of grading permits. In addition, the project scope includes demolishing an onsite building that was built in 1960. **Mitigation Measure 3E** has also been added, requiring the applicant to notify the Environmental Protection Agency (EPA) to the presence/absence of asbestos being present within the structure for assured proper building handling.

The California Emissions Estimation Model (CalEEMod) provides a means to estimate potential emissions associated with both construction and operation of land use projects. Estimated construction and operation impacts were determined by inputting the parameters specific to the proposed project into CalEEMod version 2022.1.1.26. Table 2 below shows the NSAQMD thresholds for criteria air pollutants relative to the maximum daily emissions of the project during construction and during operation.

As shown in Table 2, the project would result in Level A impacts for NO<sub>x</sub> if no mitigation is included. NO<sub>x</sub> pollution is emitted by automobiles, trucks and various non-road vehicles (e.g., construction equipment). Therefore, best management practices for construction emission controls should be implemented by this project for NO<sub>x</sub> emissions reductions as shown in **Mitigation Measure 3A**, which includes the use of the highest tier diesel engines available (Tier 4 final rule) and limiting idling time to less than 5 minutes. With the implementation of these measures, there will be a reduction in NO<sub>x</sub> to Level A impacts.

PM<sub>10</sub> emissions are due both to diesel engine exhaust from construction vehicles and the quantities of earth movement included in the project. Though the projected levels will be below NSAQMD Level B Thresholds, the suppression of dust, along with cleaner-running engines, will assist with lowering PM<sub>10</sub> levels. The proposed project involves disturbance of 0.81-acres), thus negating the requirement for a Storm Water Pollution Prevention Plan (SWPPP) permit. The project will include the demolition and mass grading of the site including the removal of existing landscaping and fifteen (15) trees. To ensure this activity does not result in the production on unnecessary PM<sub>10</sub>, the project is required to adhere to **Mitigation Measure 3D**, which requires the project to use alternatives to open burning of vegetative materials at the site. As shown in **Mitigation Measure 3F**, the project will also be required to obtain an Authority to Construct (ATC) application and an Advance Demolition notification must be submitted to the California Air Resources Board, prior to the demolition of the existing building, as required by NSAQMD. The proposed project is located near of known deposits of ultramafic or asbestos-containing rock or soils (NV5 Engineering, 2023). **Mitigation Measure 3B** requires that the applicant engage a registered geologist to conduct and evaluation of the property for ultramafic rock and file an exemption request from NSAQMD or proceed with the incorporation of the following asbestos dust mitigation measures [CCR Title 17, Section 93105(e)(1)] into the project documents and practices and **Mitigation Measures 3C** provides guidance should naturally occurring asbestos be found during site evaluation.

<b>Table 1. Project Construction Air Quality Impacts (Unmitigated)</b>		
<b>Pollutant</b>	<b>NSAQMD Threshold*</b>	<b>Project Impact</b>
<b>NOx</b>	< 24 lbs/day	2.73 lbs/day (0.50 tons/yr)
<b>ROG</b>	< 24 lbs/day	53.6 lbs/day (9.78 tons/yr)
<b>PM10</b>	< 79 lbs/day	0.41 lbs/day (0.10 tons/yr)
<b>CO</b>	N/A	653 lbs/day (108 tons/yr)
*These thresholds are "Level A" in NSAQMD's <i>Guidelines</i> . CalEEMod Version 2022.1		

<b>Table 2. Project Operational Air Quality Impacts (Unmitigated)</b>		
<b>Pollutant</b>	<b>NSAQMD Threshold*</b>	<b>Project Impact</b>
<b>NOx</b>	< 24 lbs/day	1.40 lbs/day (0.26 tons/yr)
<b>ROG</b>	< 24 lbs/day	1.99 lbs/day (0.36 tons/yr)
<b>PM10</b>	< 79 lbs/day	0.99 lbs/day (0.18 tons/yr)
<b>CO</b>	N/A	325 lbs/day (53.8 tons/yr)
*These thresholds are "Level A" in NSAQMD's <i>Guidelines</i> . CalEEMod Version 2022.1		

The project is not anticipated to have significant impacts on air quality during operation. Though additional vehicle trips will be generated, the associated trips are not anticipated to be a significant factor in increased air pollutant, as the primary consumer will be pass by trips. As annual pollutants from the operational phase of the project, with trips included, is 225 (metric tons CO<sub>2</sub>e/yr) and below the De Minimis level of 1,100 metric tons of carbon dioxide per year (MT CO<sub>2</sub>e/yr). Regular operations would include approximately 804 net new trips per day. These figures are acceptable and do not surpass outlined criteria thresholds, no further mitigation is required. Nevada County's General Plan, Chapter 14 Air Quality Element, contains numerous policies to protect air quality in Nevada County. General Plan Air Quality Element Policy 14.1 requires cooperation with Northern Sierra Air Quality Management District (NSAQMD), during review of development proposals. As part of the site plan review process, require applicants of all commercial projects to address cumulative and long-term air quality impacts, and request the District enforce appropriate land use regulations to reduce air pollution. By assessing air pollution and emissions associated with the proposed project and recommending mitigation measures based on thresholds of significance established by the NSAQMD, the project as proposed would comply with NSAQMD regulations. With implementation of **Mitigation Measures 3A, 3B, 3C, 3E, 3F, and 3G** the potential for this project to conflict with applicable air quality plans, violate any air quality standards during the construction phase, or expose sensitive receptors such as residents along the haul roads to substantial pollutant concentrations would be *less than significant with mitigation*.

- 3c. Sensitive receptors are facilities where sensitive receptor population groups (children, the elderly, the acutely ill and the chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, child-care centers, retirement homes, convalescent homes, hospitals and medical clinics. The nearest school, Bear River High School, is located 1.37± miles east of the project site. The nearest residences are approximately 0.2-miles east, located at Lake Combie Mobile Home Park and the Saddle Ridge subdivision. There are also no playgrounds, childcare centers, or retirement homes within a two-mile radius as well, due to the immediate project vicinity being located in a commercial corridor.

Potential pollutants that may be created from the project would be vehicle emissions or particulate emissions from fuel. Table 1 and Table 2 above indicate how expected pollutant concentrations fall below the level of significance threshold for pollutant criteria. With the adherence of the Mitigation Measures provided below, including those intended to minimize dust generation and release of pollutants from construction equipment the proposed project will result in **a less than significant impact with mitigation** to this criterion.

- 3d. The proposed project includes operation of a gas station and associated fuels and fumes from related gases/oils are expected. Given the low density, semi-rural nature of the surrounding area, the impacts of odors or other emissions to a substantial number of people is **less than significant**.

**Mitigation Measures:** To offset potentially adverse air quality impacts associated with the project activities, the following mitigation measures shall be required and shall be included in the improvement plans for the project:

**Mitigation Measure 3A: Reduce Emissions During Construction.** The following are the minimum mitigation measures designed to help reduce project emissions related to construction. These measures shall be included as a note on all plans prior to issuance of all grading, improvement, and building permits:

- a. The mobile off-road construction equipment in use at any time on the project shall be equipped with Tier 4 engines.
- b. Construction equipment idling time shall be limited to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). All construction equipment shall also be maintained and properly tuned in accordance with manufacturer's specifications. Clear signage shall be provided for construction workers at all access points.
- c. In addition to these measures, all statewide air pollution control regulations shall be followed, including diesel regulations (which may be accessed at [www.arb.ca.gov/diesel/diesel.htm](http://www.arb.ca.gov/diesel/diesel.htm)).

**Timing:** Prior to the issuance of building/grading permits and during construction

**Reporting:** Permit issuance

**Responsible Agency:** Planning Department / NSAQMD

**Mitigation Measure 3B: Minimize Dust to Control Asbestos Exposure.**

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The California Code of Regulations Title 17 Section 93105 has specific measures for coping with naturally occurring asbestos (NOA) at construction sites that are under one acre in size. Title 17 states that if any portion of the disturbed land is located in a geographic ultramafic rock unit, and if a geologic study has not been performed and submitted for an exemption, then the specific measures apply. According to the Geotechnical Report for this property, "the referenced geologic map indicates that the project site is likely underlain by amphibolite, an ultramafic rock often associated with naturally occurring asbestos (NOA)." Therefore, the following Title 17 requirements must be met to minimize air entrainment of asbestos particles.

- a. Construction vehicle speed at the work site must be limited to fifteen (15) miles per hour or less;

- b. Prior to any ground disturbance, sufficient water must be applied to the area to be disturbed to prevent visible emissions from crossing the property line;
- c. Areas to be graded or excavated must be kept adequately wetted to prevent visible emissions from crossing the property line;
- d. Storage piles must be kept adequately wetted, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile;
- e. Equipment must be washed down before moving from the property onto a paved public road;
- f. Visible track-out on the paved public road must be cleaned using wet sweeping or a HEPA filter equipped vacuum device within twenty-four (24) hours.

**Timing:** *Prior to issuance of Grading/Improvement/Building permits*

**Reporting:** *Agency approval of future grading and improvement permits*

**Responsible Agency:** *Planning Department / NSAQMD*

**Mitigation Measure 3C: Naturally Occurring Asbestos.** According to the California Code of Regulations Title 17 Section 93105 (b)(1), State asbestos regulations apply if “Any portion of the area to be disturbed is located in a geographic ultramafic rock unit...” Therefore, there are two options moving forward as detailed below. An approved exemption request or Asbestos Dust Mitigation Plan shall be achieved from NSAQMD and then submitted to the Planning Department prior to issuance of grading permits.

1. The applicant can engage a registered geologist to conduct an evaluation of the property. If this evaluation determines that no serpentine or ultramafic rock is likely to be found in the area to be disturbed, the applicant can request an exemption from the Air Pollution Control Officer of the NSAQMD. (See Title 17 Section 93105 (c)(1)(A) for report requirements.)

Or,

2. The applicant can proceed as if all disturbed soils contain asbestos and subsequently incorporate the required asbestos dust mitigation measures into the project documents and practices, as found in CCR Title 17 Section 93105(e)(2) and (4) etc. This includes submitting and acquiring NSAQMD approval of an Asbestos Dust Mitigation Plan (ADMP) before the start of any construction or grading activity.

The ADMP must include:

- a. Concrete measures for soil track-out prevention and control
- b. Dust prevention measures for active construction areas and storage piles
- c. Dust minimization from unpaved roads, parking lots, or staging areas, including a
- d. Limit onsite vehicle speeds to 15 mph or less
- e. All offsite transport control measures
- f. Methods of post construction stabilization (in perpetuity)
- g. All monitoring and reporting to be performed.

Please see the above-mentioned Title 17 sections for specific requirements in each of these categories.

**Timing:** *Prior to issuance of the grading permits and improvement plans and during grading activity*

**Reporting:** *Agency approval of future grading and improvement permits*

**Responsible Agency:** *Planning Department / NSAQMD*

**Mitigation Measure 3D: Use Alternative Methods to Open Burning for Vegetation Disposal.** The following note shall be included on all grading and improvement plans: "Open burning of site-cleared vegetation is prohibited. Among suitable alternatives are chipping, grinding, hauling to an approved disposal site, cutting for firewood, and conversion to biomass fuel."

**Timing:** *Prior to issuance of grading and improvement permits*

**Reporting:** *Permit issuance*

**Responsible Agency:** *Planning Department / NSAQMD*

**Mitigation Measure 3E: Demolition Notification.** The applicant will submit the required notification to the Environmental Protection Agency (EPA) for the proposed building notification attesting to the presence/absence of regulated asbestos containing material in the building, and its proper handling."

**Timing:** *Prior to building demolition and prior to issuance of Grading/Improvement/Building permits*

**Reporting:** *Agency approval of future grading and improvement permits*

**Responsible Agency:** *Planning Department / NSAQMD*

**Mitigation Measure 3F: Permitting with NSAQMD.** This process starts with the submission of an Authority to Construct (ATC) application and fee. The application can be found on our website here: <https://www.myairdistrict.com/files/53da1c5e8/VR-AC-fillable-1.pdf> .

The applicant must click on the fillable form, fill it out, and send it via mail, or email to [office@myairdistrict.com](mailto:office@myairdistrict.com) . The fee is listed here: <https://www.myairdistrict.com/fee-schedule-page> . An Advance Demolition notification must be submitted to the Environmental Protection Agency, prior to the demolition of the existing building. The form can be found at this website: <https://ww2.arb.ca.gov/our-work/programs/asbestos-neshap-program/asbestos-neshap-notification-renovation-or-demolition> .

**Timing:** *Prior to issuance of grading and improvement permits*

**Reporting:** *Permit issuance*

**Responsible Agency:** *Planning Department / NSAQMD*

**Mitigation Measure 3G: Prepare a Dust Control Plan.** Prior to issuance of grading and improvement permits, submit a Dust Control Plan to Northern Sierra Air Quality Management District, if more than one (1) acre of natural surface area is to be altered or where the natural ground cover is removed, and gain their approval. The disturbance of natural surface area includes any clearing or grading. Include the approved Dust Control Plan on the project plans using clear phrasing and enforceable conditions, under its own heading. Provide evidence of NSAQMD approval to Nevada County with permit application submittal. The plan shall include but not be limited to the following measures, which shall also be included on all construction plans:

- a. Contact details must be provided for the person/s responsible for ensuring that all dust control measures are performed in a timely manner during all phases of project construction.



- b. All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.
- c. All land clearing, grading, earth moving, and excavation activities on the project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 miles per hour.
- d. All inactive portions of the site shall be covered, seeded, or watered until a suitable cover is established.
- e. All material transported off-site shall be either sufficiently watered, or securely covered to prevent it being entrained in the air, and there must be a minimum freeboard of six inches maintained in the bed of the transport vehicle.
- f. All areas with vehicle traffic shall be watered or have dust palliative applied as necessary to minimize dust emissions.
- g. The construction contractor shall limit vehicle speeds on unpaved roads to a speed of 15 mph.
- h. Paved streets adjacent to the project shall be swept or washed at the end of each day, or as needed to remove excessive accumulation of silt and/or mud which may have resulted from activities at the project site.

**Timing:** *Prior to issuance of grading permits and improvement plans*

**Reporting:** *Reporting: Provide documentation of approval form NSAQMD*

**Responsible Agency:** *Planning Department / NSAQMD*

## 4. Biological Resources

### Existing Setting:

The project parcel is located within the Sierra Nevada foothills, on a corner property along the northside of Combie Road and along the east side of the State Highway 49 intersection. The topography of the site is considered moderately sloping from north to south and northwest to southwest. Average elevation in the project area is approximately 1,450 feet above mean sea level (MSL), with the highest elevation of 1,485 above MSL within the southern section of the project parcel and the lowest elevation being 1,420 feet above MSL within the southern section of the project area. The project area is approximately 0.81-acres in size and currently developed with an existing 12-stall asphalt parking lot and an approximately 1,297 sq. ft. commercial office building. Roughly 12,000± SQ. FT. of the project parcel is covered with the existing development. The project parcel is classified as a developed and disturbed parcel. Surrounding the perimeter of existing development is areas of existing vegetation, dominated by non-native annual grassland and ruderal species. Trees existing on the site include Sycamore and Blue Oak trees, within the project area. Existing trees do not meet local ordinance requirements to be considered protected trees. A formal delineation of wetlands, streams, and drainages was not provided as part of the project application due to none being present on the project parcel. However, Ragsdale Creek, a seasonal watercourse, is located directly south of Combie Road, along the public Village Center walking pathway. There are no named or mapped streams/waterways within the project area, per National Wetland Inventory. Per Soil Survey Geographic Database (SSURGO) data for the project parcel, there is a single soil type present, Argonaut Gravelly Loam. The soils in surrounding areas are classified by SSURGO as primarily Boomer Loam, no natural occurring rock outcrops are present. Some man placed rocks have been set on the property, along the existing parking lot area

perimeter, as an additional protection measure and to detour pedestrians walking on foot across the project parcel.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			✓		A,6-8
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 Game or US Fish and Wildlife Service?				✓	A,6-8
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?				✓	A,6-8
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?				✓	A,6-8
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓	A,6-8
f. Conflict with the provisions of an adopted Habitat Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓	A,6-8

**Impact Discussion:**

4a. The California Department of Fish and Wildlife (CDFW) has jurisdiction over plant and wildlife species listed as threatened or endangered under section 2080 of the CDFW code. The California Endangered Species Act (CESA) prohibits take of listed threatened/endangered species. The CDFW may authorize the term *take* under CESA through section 2081 agreements. CDFW maintains lists for Candidate-Endangered Species and Candidate-Threatened Species. The project will not substantially interfere with movement of native or migratory fish. Three special-status species have been documented within three miles of the site; Brandegees Clarkia, Western Pond Turtle, and Special-status resident and migratory birds, to include the American Peregrine Falcon.

Although the project is within the range of the Western Pond Turtle, there is no on-site habitat, such as riparian areas or ponds, available for the species. Although the project is within the range of special status resident and migratory birds, the availability of appropriate habitat is marginal. With respect to the American Peregrine Falcon, there are no cliff-sides or other similar terrain that provides typical and preferred habitat for nests. In regard to the Brandegee's Clarkia plant, typical soil characteristics needed for livelihood are absent on the project parcel, it is unlikely that any special-status plant species that associate with such soil types would occur within the project area given that no previously recorded serpentine and/or gabbro associated special-status plant species have been identified within 3 miles of the Project area. Additionally, a pedestrian survey that was conducted as part of the provided biological inventory report, rendered no sighting of Brandegee's Clarkia nor suitable habitat for these species on or near the project site (Matuzak, 2023). No CESA candidate species, or protected species, have been documented on the project area and the project area does not contain suitable habitat for any of the listed species protected under CESA (Matuzak, 2023). Additionally, there is no riparian habitat, federally protected wetlands, or any sensitive natural communities on the project site. Due to the absence of protected water bodies on-site and the existing trees, proposed to be removed, not meeting outlined local criteria for protection no adverse effect is posed through the project proposal.

The project construction will not have a substantial adverse effect via habitat modification from project construction based on the absence of applicable habitat. The subject parcel site is already heavily disturbed from previous commercial/existing uses, to include decades of commercial development on site, the adjacent State Highway, and adjacent commercial center. Although the project is within range for these species to exist, there is little to no existing suitable habitat available. Although suitable habitat may not be available, the potential to impact nesting and migratory birds could occur during construction activities. Therefore, **Mitigation Measure 4A**, is recommended requiring a nesting survey prior to any disturbance during the nesting season to identify nesting raptors and migratory bird's onsite to avoid impacts to them. With the implementation of **Mitigation Measure 4A**, the development of the proposed project, is not anticipated to result in a substantial adverse effect, either directly or through habitat modifications, on any species identified as a sensitive candidate, in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. Therefore, the project would have **less than significant impact with mitigation** on special-status species or sensitive natural habitat.

- 4b,c. No, the project area does not contain state or federally protected wetlands. The project area is a non-sensitive soils site. Per provided Biological Inventory report, utilizing the National Wetlands Inventory, no protected water bodies, riparian habitat, nor any other sensitive natural communities have been identified. A staff level inspection was conducted, verifying that no wetlands, marshes, or vernal pools existed on the project site. Due to the lack of present sensitive habitat and communities, and proposed development occurring within a pre-developed and non-sensitive site, the project would have no impact on federally protected wetlands.
- 4d. With the absence of any water bodies, there is no native or migratory fish to be impacted. In regard to potential wildlife corridors, the project parcel does fall within a "Resident Herd"

area, as outlined per Nevada County General Plan. Accordingly, the biological report further analyzed potential impact to deer populations by the project. The field survey did not record any observations of deer and notes that due to heavy vehicular traffic, pedestrian foot traffic, the adjacent commercial center, and lack of habitat and food sources on the project parcel, that deer will not be utilizing the site as a corridor for habitation, migrating, grazing, or fawning. The project area does not contain any known major deer migration corridor, known deer holding area, nor any known critical deer fawning area. Therefore, there will be **no impact**.

- 4e. The project plans do not conflict with any local policies or ordinances protecting biological resources. The on-site trees do not meet requirements for protected resources and do not warrant additional applications for removal, such as a Management Plan per local policy. Trees to be removed are exempt due to not meeting applicable protection criteria. Deer habitat is also considered a protected biological resource per local policy. The provided Biological Inventory report, prepared by a professional biologist has verified that deer wildlife corridor will not be impacted, as useable habitat is nonexistent and that the site is not within a critical deer fawning area. Subsequently the proposed project will have **no impact** to local policies protecting biological resources.
- 4f. No conservation plans currently include the project area and therefore the proposed project would **no impact** in this category.

**Mitigation Measures:** To offset potentially adverse air quality impacts associated with the project activities, the following mitigation measures shall be required and shall be included in the improvement plans for the project:

**Mitigation Measure 4A: Avoid Impacts to Nesting Birds.** Vegetation trimming and clearing may reduce available habitat for wildlife and, potentially, for special-status species which may use these forest stands. Sections 3503, 3503.5, and 3513 of the Fish and Game Code protect nesting and migratory birds and birds of prey. Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant thereto. Section 3503.5 states that 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 the Fish and Game Code or any regulation adopted pursuant thereto. Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the federal Migratory Bird Treaty Act. Impacts to nesting raptors, including special-status avian or bat species, and migratory birds can be avoided by removing vegetation before the start of the nesting season, or delaying removal until after the end of the nesting season. The following note shall be added to all improvement/grading/construction plans:

- a. If construction is to take place during the nesting season (February 1 - August 31), including any ground disturbance, preconstruction surveys for nesting raptors, migratory birds and special-status bats shall be conducted no more than 15 days prior to the beginning of construction activities by a California Department of Fish and Wildlife (CDFW) approved / Nevada County pre-qualified biologist, in accordance with California and Federal requirements. CDFW typically recommends a minimum of a 500-foot radius for migrating birds, and a ½ mile radius for nesting raptors

- b. Tree removal and construction shall not take place during the breeding season (February 1 –August 31), unless supported by a report from the qualified biologist verifying that birds, including raptors, are not nesting in the trees proposed for removal or disturbance.
- c. If any large trees are proposed for removal during the active bird nesting season (i.e., February 1 to August 31) they should be inspected by a qualified biologist to ensure that no active bird nests are disturbed or destroyed. If, however, the tree is removed before February 1 or after August 31 no mitigation would be required.
- d. If any special-status birds/species are encountered during project activities, work should be suspended, CDFW notified, and conservation measures should be developed in agreement with CDFW prior to re-initiating the activity. Conversely, if during project activities, any species listed pursuant to the CESA are encountered, work shall be suspended, and CDFW notified. Work may not re-initiate until the Project proponent has consulted with CDFW and can demonstrate compliance with CESA. If an active nest/special-status species is discovered outside of the typical nesting season, it should be avoided using the same avoidance measures that would be applied during the typical nesting season until such time as the young have fully fledged and are foraging independently of their parents.
- e. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then an onsite biologist/monitor experienced with raptor behavior, shall be retained by the project proponent to monitor the nests, and shall, along with the project proponent, consult with the CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed to proceed within the temporary nest disturbance buffer if raptors are not exhibiting agitated behavior such as defensive flights at intruders, getting up from a brooding position, or flying off the nest. The designated biologist/monitor shall be onsite daily while construction related activities are taking place and shall have the authority to stop work if raptors are exhibiting agitated behavior. In consultation with the CDFW and depending on the behavior of the raptors, over time the biologist/monitor may determine that monitoring is no longer necessary, due to the raptors' acclimation to the activities.
- f. Any trees containing nests that must be removed as a result of development shall be removed during the non-breeding season. However, the project proponent shall be responsible for off setting the loss of any nesting trees. The project proponent and biologist/monitor shall consult with CDFW and the extent of any necessary compensatory mitigation shall be determined by CDFW. Previous recommended mitigation for the loss of nesting trees has been at a ratio of three trees for each nest tree removed during the non-nesting season.

**Timing:** Prior to issuance of Grading/Improvement/Building permits

**Reporting:** Improvement plans

**Responsible Agency:** Planning Department

## 5. Cultural Resources

### Existing Setting:

The present project parcel and area of potential effect (APE) incorporates approximately 0.81-acres of land comprised of relatively flat land situated immediately north of Combie Road, a short distance east of State Route 49, at Higgins Corner, within the southwestern portion of Nevada County. In the project area, ancestral indigenous use of the area may have focused on gathering

and hunting for native wildlife. All of the project area is situated within gently sloped lands, that has been impacted by development for at least the last 100± years. The project parcel was originally developed with a structure in 1960, and later developed into a commercial space in 1988.

A Cultural Resource report has been prepared for the proposed project to further explain documented analysis and records of the site. Archaeological records were examined on February 13, 2023 (NCIC File number NEV-23-10), this search documented the following existing conditions for the APE and the surrounding external 0.25-mile radius:

- No cultural resources have been documented within the APE. One (1) cultural resource (Higgins Corner Forest Fire Station Complex) has been documented within 0.25-miles of the APE.
- Fourteen (14) cultural resources investigations have been conducted within the 0.25-mile search radius.

Existing records at the Northern Central Information Center records (NCIC), document that none of the present APE had been subjected to previous archaeological investigation, and that no prehistoric or historic-era sites had been documented within the APE. As well, the present effort included an intensive-level pedestrian survey. The pedestrian survey failed to identify any prehistoric resources within the APE. One historic-era resource, the Higgins Fire Station Complex, designated “10018 Combie Road,” was identified, recorded and recommended not eligible for inclusion under any of the relevant criteria.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?		✓			F,9,10
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		✓			F,9,10
c. Disturb any human remains, including those interred outside of formal cemeteries?		✓			F,9,10

**Impact Discussion:**

5a-c. The proposed project is located within an existing developed parcel, with an approximately 1,297 sq. ft. office building built in approximately 1960. No historic-era resources have been identified on site. No other prehistoric, or archaeological resources were discovered during cultural resources inventory surveys. Fourteen (14) cultural resources investigations have been conducted within the 0.25-mile search radius, external of the project parcel. Respective tribes were routed the project for comment, no requests for consultation were received. Potential for unanticipated discovery of cultural resources, including historic, pre-historic, and paleontological resources during project construction remains a possibility. Due to this potential, impact would be **less than significant with mitigation**.

**Mitigation Measures:** To offset potentially adverse cultural or historical resources impacts associated with the construction activities, the following mitigation measure shall be required:

**Mitigation Measure 5A. Halt work and contact the appropriate agencies if human remains or cultural materials are discovered during project construction.** All equipment operators and employees involved in any form of ground disturbance at any phase of project improvements shall be advised of the remote possibility of encountering subsurface cultural resources. If such resources are encountered or suspected, work shall be halted immediately and the Nevada County Planning Department, United Auburn Indian Community of the Auburn Rancheria, and any other interested and affected tribe shall be contacted. A professional archaeologist shall be retained by the developer and consulted to access any discoveries and develop appropriate management recommendations for archaeological resource treatment. If bones are encountered and appear to be human, California Law requires that the Nevada County Coroner and the Native American Heritage Commission be contacted and, if Native American resources are involved, Native American organizations and individuals recognized by the County shall be notified and consulted about any plans for treatment. A note to this effect shall be included on the grading and construction plans for each phase of this project.

**Timing:** Prior to the issuance of building/grading permits and during construction

**Reporting:** Agency approval of permits or plans

**Responsible Agency:** Planning Department

## 6. Energy

**Existing Setting:** On February 12, 2019, the Nevada County Board of Supervisors approved the Energy Action Plan (EAP) as the County’s unincorporated area’s roadmap for expanding energy-efficiency, water-efficiency, and renewable-energy, and the cost-savings that accompany these efforts. The EAP is focused on operations of structures, infrastructure that generates energy, and efficient use of water. The subject parcel is currently developed with an existing office building. Pacific Gas & Electric (PG&E) previously served the site PG&E would serve the proposed facility for electricity.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during construction or operation?			✓		A,10,11
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			✓		A,10,11

**Impact Discussion:**

6a,b. Construction techniques and equipment used to construct the project will be consistent with local and state regulations. Typical construction activities require the use of energy (e.g., electricity and fuel) for various purposes such as the operation of construction equipment and tools, as well as grading and construction travel. The size and scope of the

project is not likely to require extraordinary, or non-typical construction equipment, or techniques resulting in a wasteful, or inefficient construction operation. The operation of the proposed gas station and convenience store will utilize existing available power and energy sources and will be subject to meeting all federal, state and local codes in relation to this use. The local Energy Action Plan does not address energy use during the construction phase, so there is no conflict with the local plan. There is a **less than significant impact** related to excessive energy consumption or conflicts with renewable energy or energy efficiency plans.

**Mitigation:** None required.

## 7. Geology and Soils

**Existing Setting:** The project parcel is comprised of relatively flat land located on the north side of Combie road, approximately 200-feet northeast of the Combie Road and State Highway 49 intersection. Directly north and to the rear of the project site, is the Higgins Fire Protection District fire station. The project parcel is developed with an existing 12-stall asphalt parking lot and a 1,297 sq. ft. office building. Roughly 12,000± SQ. FT. of the project parcel is covered with development. The proposed project development area equates to a total of 0.81-acres, or 35,056 square-feet, of redevelopment on the project parcel.

The project site is 0.81-acres in size and is predominantly flat with a slight change in elevation and no visible or naturally occurring rock outcrops; there are landscape rocks to the west of the property that were placed to frame the existing parking lot. The property site was previously developed and currently has an existing single-story office building, asphalt parking lot, commercial driveway apron, and utilities facilitated with the project parcel. Outside of the parking area, to the west, is where slight elevation changes exist, adjacent to the fire protection district secondary access asphalt road. From the asphalt roadway, the elevation increases from typical flat road surface to an uphill slope. Utilities exist in between the asphalt roadway and the west perimeter of the project parcel.

Per U.S Department of Agriculture (USDA) Natural Resource Conservation Service data for the project parcel, there is a single soil type present for the entire site. Specifically, Argonaut Gravelly Loam/ "ArC" with 2-15% slopes constitute most of the project area; with soils in adjacent surrounding areas, to the north and west, being the same. According to the Geologic Map of the Chico Quadrangle, the area containing the project parcel is generally Mesozoic era metavolcanics rocks. A field survey was conducted by NV5, noting the following surface and subsurface conditions: Exploratory trenching was conducted, excavating depths between 1 – 4.5 feet below the ground surface, using a Cat-304 excavator and 24-inch bucket. A engineer logged soil conditions and collected relatively undisturbed and bulk soil samples for laboratory testing. During the site investigation, no ultramafic rock, serpentine, or naturally occurring asbestos minerals were encountered. However, an investigation to rule out asbestos was not performed. During the geotechnical site investigation, no ground water seepage was encountered in exploratory trenches.

The Alquist-Priolo Earthquake Fault Zoning Act was adopted in 1972 to prevent the construction of buildings in areas where active faults have surface expression. Ground or fault rupture is



generally defined as the displacement that occurs along the surface of a fault during an earthquake. The project site is not within an Alquist-Priolo Earthquake Fault Zone, and there are no known faults that cross through the project site. Generally, western Nevada County is in a low intensity zone for earthquake severity. The area has not been evaluated by the California Geologic Survey for liquefaction hazards or seismic landslide hazards.

There are no known unique paleontological resources or sites or unique geologic features in the project area.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Directly or indirectly cause potential substantial adverse effects, including risk of loss, injury or death involving: <ul style="list-style-type: none"> <li>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.</li> <li>ii. Strong seismic ground shaking?</li> <li>iii. Seismic-related ground failure including liquefaction?</li> <li>iv. Landslides?</li> </ul>				✓	A,G, 10,11,13, 14
b. Result in substantial soil erosion or the loss of topsoil?		✓			A,10,12
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 offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?			✓		A,G, 10,13,14
d. Be located on expansive soil creating substantial direct or indirect risks to life or property?			✓		A,G, 8,10,12, 13,14
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?				✓	A,G 8,10,12, 13,14
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			✓		A, F, 9,10,12

**Impact Discussion:**

7a. The project site is not within an Alquist-Priolo Earthquake Fault Zone, and there are no known faults that cross through the project site. Generally, Nevada County is in a low intensity zone for earthquake severity. The project does not propose any especially deep excavation or construction work, focused instead on utility trenching, site grading and

flattening. Geotechnical services were contracted through NV5, NV5 developed the code-based seismic design parameters in accordance with Section 1613 of the 2022 California Building Code (CBC), and the Structural Engineers Association of California (SEAOC) and California Office of Statewide Health Planning and Development (OSHPD) Seismic Design Maps web application. Therefore, there is **no impact** for impacts to rupture of known earthquake faults, seismic ground shaking, seismic-related ground failure and landslides.

- 7b,c,d. In anticipation of the proposed convenience store building and fueling island associated with the project, the project site will have cut slope grading to accommodate the project area. A maximum of 8-feet in depth, behind the convenience store, is proposed to accommodate a retaining wall, to better facilitate the development within the existing sloped land. The project application included the submittal of a Geotechnical Engineering Report prepared by NV5 Engineering dated 2023 to demonstrate that the project site is adequate to support the proposed development. The recommendations of this report will ensure that potential impacts to geology and soils are less than significant. While no potential adverse impacts to geology and soil are anticipated because of this project, adherence to the recommendations of the Geotechnical Engineering Report as provided in Appendix B of this initial study is required.

NV5 did not express concerns for topsoil loss (NV5 Engineering, 2023). Potential soil erosion is to be mitigated through appropriate cut slope grading measures. Anticipated permanent cut slopes up to feet in height will be created during grading of the proposed improvements. In general, permanent cut slopes should not be steeper than 1.5:1, horizontal to vertical (H:V). Steeper cut slopes may be feasible, depending on the soil/rock conditions encountered and will be reviewed on a case-by-case basis. The upper two feet of all cut slopes will be graded to an approximate 2:1 (H:V) slope to reduce sloughing and erosion of looser surface soil. Existing soil conditions on site possess a low to moderate corrosion potential for uncoated steel and a moderate to high corrosion potential for concrete. NV5 professional opinion concluded that the site is suitable for the proposed improvements, provided that the engineering recommendations within their report are to be incorporated into project plans. With NV5 provided recommendations, as required by **Mitigation Measure 7A**, there would be **less than significant impact with mitigation** to geology and soils as a result of the proposed project.

- 7e. The project area is served by municipal sewer (Nevada County Sanitation District, Lake of the Pines- Zone 2) and does not propose any septic tanks or alternative wastewater disposal systems. Therefore, there is **no impact** related to soils needed to serve septic systems.
- 7f. There is no evidence of paleontological resources in the project area. Infrastructure used to support the existing building, is existing currently. However, **Mitigation Measures 5A** described in Section 5 above, would require construction to be halted in the unlikely event that there is a discovery of cultural resources, including historic, prehistoric, tribal, and paleontological resources so that any paleontological resources can be evaluated and protected. There are no unique geological features in the project area. Therefore, impacts to paleontological resources and unique geological features is **less than significant with mitigation**.

**Mitigation Measures:** To mitigate unexpected soils presence and impacts from project grading and construction, both on-and off-site, the following mitigation measures, in addition to **Mitigation Measures 5A and Mitigation Measure 3B, 3C, 3E, and 3F**, shall be required:

**Mitigation Measure 7A: Implement the Recommendations of the NV5 Geotechnical Report:** To ensure that the project does not result in a significant impact to geology and soils, the applicant shall include the recommendations of the NV5 Geotechnical Report (2023) incorporated herein by reference, provide in Appendix B of this initial study and kept on file with the Planning Department, in the project design and include these recommends in all improvement plans (demolition, grading and construction permits, if applicable). Final recommendations are specific to: Clearing and Grubbing, Cut Slope Grading, Soil Preparation for Fill Placement, Fill Placement, Rock Fill Placement, Differential Fill Placement, Fill Slope Grading, Erosion Controls, Underground Utility Trenching, Construction Dewatering, Surface Water Drainage, Soil Corrosion Potential, Grading Plan Review and Construction Monitoring, Seismic Design Criteria, Foundations, Slab on Grade Floor Systems, Retaining Wall Design Criteria, and Pavement Design.

**Timing:** *Prior to issuance of grading or improvement permits/During Construction*

**Reporting:** *Approval of permits or plans/During Construction*

**Responsible Agency:** *Building Department*

## 8. Greenhouse Gas Emissions

**Existing Setting:** Global climate change refers to changes in average climatic conditions on the earth, including temperature, wind patterns, precipitation and storms. Global warming, a related concept, is the observed increase in the average temperature of the earth's surface and atmosphere. One identified cause of global warming is an increase of greenhouse gases (GHGs) in the atmosphere. Greenhouse gases (GHGs) are those gases that trap heat in the atmosphere. GHGs are emitted by natural and industrial processes, and the accumulation of GHGs in the atmosphere regulates the earth's temperature. Events and activities, such as the industrial revolution and the increased combustion of fossil fuels (e.g. gasoline, diesel, coal, etc.), are believed to have contributed to the increase in atmospheric levels of GHGs. GHGs that are regulated by the State and/or EPA are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>) and nitrous oxide (NO<sub>2</sub>). Emission inventories typically focus on GHG emissions due to human activities only, and compile data to estimate emissions from industrial, commercial, transportation, domestic, forestry, and agriculture activities. CO<sub>2</sub> emissions are largely from fossil fuel combustion and electricity generation. Agriculture is a major source of both methane and NO<sub>2</sub>, with additional methane coming primarily from landfills. Most HFC emissions come from refrigerants, solvents, propellant agents, and industrial processes, and persist in the atmosphere for longer periods of time and have greater effects at lower concentrations compared to CO<sub>2</sub>. Global warming adversely impacts air quality, water supply, ecosystem balance, sea level rise (flooding), fire hazards, and causes an increase in health-related problems.

To reduce emissions of greenhouse gases, the California Legislature enacted AB 32 (AB 32) which is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive, multiyear program to limit California's GHG emissions at 1990 levels by 2020, and initiate the transformations required to achieve the state's

long-range climate objectives. In April 2015, the California Air Resources Board issued Executive Order B-30-15 to set an interim target goal of reducing GHG emissions to 40 percent below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050 as set forth in EO S-3-05. SB 32, enacted in 2016, codified the 2030 the emissions reduction goal of CARB Executive Order B-30-15.

In addition, the Governor signed Senate Bill 97 in 2007 directing the California Office of Planning and Research to develop guidelines for the analysis and mitigation of the effects of greenhouse gas emissions and mandating that GHG impacts be evaluated in CEQA documents. CEQA Guidelines Amendments for GHG Emissions were adopted by OPR on December 30, 2009. The Northern Sierra Air Quality Management District (NSAQMD) has prepared a guidance document, Guidelines for Assessing Air Quality Impacts of Land Use Projects, which includes mitigations for general air quality impacts that can be used to mitigate GHG emissions when necessary. Continuing to reduce greenhouse gas emissions is critical for the protection of all areas of the state, but especially for the state’s most disadvantaged communities, as those communities are affected first, and, most frequently, by the adverse impacts of climate change, including an increased frequency of extreme weather events, such as drought, heat, and flooding.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?		✓			A, B, 16,17,18
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			✓		A, B, 16,17,18

**Impact Discussion:**

8a,b. Greenhouse gas (GHG) emissions of primary concern from land use projects include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). Construction related activities resulting in exhaust emissions may come from fuel combustion for heavy duty diesel and gasoline-powered equipment, portable auxiliary equipment, material delivery trucks, and worker commuter trips. Operational GHG emissions would result from motor vehicle trips generated by customers and employees, as well as on-site fuel combustion for landscape maintenance equipment.

The proposed project would result in demolition of the existing 1,297 sq. ft. office building and existing paved parking and circulation area, construction of a new 3,323sq. ft. convenience store with a 2,592 sq. ft. fuel canopy with 6 fuel pumps (12 dispensers), 19 parking spaces with striping, 4 of which are setup as Electric Vehicle (EV) charging stations, and interior and perimeter landscaping, a trash enclosure, a retaining wall with a maximum height of 8-feet on the north and west sides of the property and one 22,000-gallon underground gasoline storage tank and one 22,000-gallon underground diesel fuel storage tank. The California Global Warming Solutions Act (AB32) signed into law in September 2006, requires statewide GHG emissions to be reduced to 1990 levels by 2020. AB32

established regulatory, reporting, and market mechanisms to achieve this goal and provides guidance to help attain quantifiable reductions in emissions efficiently, without limiting population and economic growth. In September of 2016, Senate Bill (SB) 32 was signed by the Governor, to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. On October 13, 2016, the Placer County Air Pollution Control District (PCAPCD) adopted CEQA significance thresholds for GHG emissions as shown below. The brightline threshold of 10,000 metric tons (MT) CO<sub>2</sub>e/yr threshold for construction and operational phases, and the De Minimis level of 1,100 MT CO<sub>2</sub>e/yr for operational, were used to determine significance. GHG emissions from projects that exceed 10,000 MT CO<sub>2</sub>e/yr would be deemed to have a cumulatively considerable contribution to global climate change. The project is expected to generate greenhouse gases that would result in less than significant environmental impacts.

The proposed project would not be in conflict with plans, policies, or regulations serving the purpose to reduce greenhouse gas reductions. Carbon dioxide (CO<sub>2</sub>) is the main component of greenhouse gases, and vehicles are a primary generator of CO<sub>2</sub>. California is divided geographically into air basins for the purpose of managing the air resources of the State on a regional basis. An air basin generally has similar meteorological and geographic conditions throughout. Nevada County and Placer County are both within the Mountain Counties Air Basin. Nevada County is within the jurisdiction of the Northern Sierra Air Quality Management District (NSAQMD), but the NSAQMD has not adopted thresholds of significance for greenhouse gases. However, Placer County Air Pollution District (APCD) has adopted thresholds of significance for greenhouse gases. Due to greenhouse gas emissions being not only a regional, but also a global concern, with the similarities between neighboring air districts, it was determined that the Placer APCD thresholds are a relevant standard for the determination of significance. The project was also reviewed for consistency with the Sacramento Metropolitan Air Quality Management District (SMAQMD) thresholds due to its proximity to that District. The thresholds adopted by Placer County APCD include a bright-line threshold of 10,000 metric tons of Carbon dioxide equivalent per year and a De Minimis level of 1,100 metric tons of carbon dioxide per year (MT CO<sub>2</sub>e/yr). A De Minimis Level for the operational phases of 1,100 MT CO<sub>2</sub>e/yr represents an emissions level which can be considered as less than cumulatively considerable and be excluded from the further GHG impact analysis.

Table 3 provides NSAQMD’s Thresholds of Significance, developed pursuant to Section 15382 and Appendix G of CEQA Guidelines.

**Table 3. NSAQMD Thresholds of Significance**

Significance Level	Project-Generated Emissions (lbs/day)		
	ROG	NO <sub>x</sub>	PM <sub>10</sub>
Level A	<24	<24	<79
Level B	24–136	24–136	79–136
Level C	>136	>136	>136

*Source: NSAQMD Guidelines for Assessing and Mitigating Air Quality Impacts of Land Use Projects. (March 15, 2021)*

The California Emissions Estimator Model (CalEEMod) was used to model the greenhouse gas emissions from the construction and operation phases of the project, see Table 4 and Table 5 below. The thresholds are tiered, a project with projected emissions meeting Level

A thresholds will require the most basic mitigations. Threshold B requires more extensive mitigations and Threshold C requires the most extensive mitigations. The subject project falls below thresholds of Level A. During construction, an estimated 110 metric tons of carbon dioxide equivalent would be emitted during the construction timeframe. **Mitigation Measure 3A** reduces emissions during construction by requiring Tier 4 engine vehicles to pollute less and limit idling time.

**Table 4. Construction GHG Emissions Summary**

Construction Emissions	Unmitigated Annual GHG Emissions (MTCO <sub>2</sub> e/yr)	Thresholds Exceeded?
<b>Total Emissions</b>	<b>110</b>	
PCAPCD Threshold	10,000	NO
SMAQMD Threshold	1,100	NO
<i>Source: CalEEMod version 2022.1.1.17</i>		

**Table 5. Operational GHG Emissions Summary**

Operational Emissions	Unmitigated Annual GHG Emissions (MTCO <sub>2</sub> e/yr)	Thresholds Exceeded?
<b>Total Emissions</b>	<b>192</b>	
PCAPCD Threshold	1,100	NO
SMAQMD Threshold	1,100	NO
<i>Source: CalEEMod version 2022.1.1.17</i>		

During the operational level, the project is projected to produce 192 metric tons of carbon dioxide equivalent annually as shown in Table 5 above, which is below the De Minimis Level. Based the project specific Traffic Impact Study prepared by W-Trans, dated June 14, 2024, the project is expected to generate an average of 804 net new trips per day, including 52 trips during each of the peak morning and evening peak hours. Due to the greenhouse gas emissions from the project being below the greenhouse gas significance threshold, the overall GHG impact is expected to remain at a level that is **less than significant with mitigation**.

**Mitigation Measures:** See **Mitigation Measure 3A and 3C**.

## 9. Hazards and Hazardous Materials

**Existing Setting:** No existing or proposed schools are located within one-quarter mile of the project area. The project area is not within an airport land use plan of within two miles of a public airport or public use airport of in the vicinity of a private airstrip. As part of project submittal, a Hazardous Materials Inventory Statement was collected on behalf of the applicant. The Department of Toxic Substances Control (DTSC) EnviroStor database was utilized to check for past hazardous information on the project property, no hazardous information resulted. Similarly, the State Water

Board Resources Control Board online GeoTracker database was utilized, with no hazardous information resulted. The project is not within or adjacent to any hazardous materials sites compiled, nor is it located on an abandoned solid waste disposal site known to the County, per CERS. The project area is located directly south of the Higgins Fire Protection District (25-feet) and is located within a designated Moderate fire severity zone (Cal Fire, Fire Hazard Severity Zones, December 2022).

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓		C,G
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?			✓		A,C,G,20
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓	A,C,20
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?				✓	A,C,G,20
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓	A,C,21
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			✓		A,23
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			✓		A,E,23

**Impact Discussion:**

9a,b. The proposed project would result in routine transport and use of hazardous materials, such as gasoline and diesel. Routine transport of hazardous materials would be for the delivery of fuel to replenish underground tanks. A gas station is considered a hazardous materials storage site and requires a Certified Unified Program Agency (CUPA) permit, which is enforced and regulated by the overarching CalEPA hazardous waste and material program, and Environmental Health Department. With the CUPA permit, the Environmental Health Department (EH) will have full access rights to the facility, including roads across

private property, for the purposes of inspecting, investigating complaints, and response to accidental release related to the onsite hazardous materials, 24 hours per day, 7 days per week. With the CUPA permit, the Nevada County Environmental Health Department is assigned as the lead agency for spills and routine inspections. The CUPA permit also ensures annual inspections of transport trucks/vehicles that are used for routine transport of hazardous materials to the site, to include gasoline, diesel, and petroleum. Transport of hazardous materials on State Route 49 and other federal highways will require permitting from Department of Transportation (DOT) for safety assurance.

During fueling of underground storage tanks, there are procedures and alarms in place, to include a 5-gallon spill/ catch bucket, that will trigger an audio/visual sensor/alarm should a fuel spill occur. If a spill occurs, alarm sensors built into the system will be triggered to notify operators and employees on site. This alarm system is inspected monthly through a third-party vendor. Should a large spill occur, local fire department, CalFire, Environmental Health Department, and local law enforcement are the stakeholders that provide local oversight involved until the spill is closed.

To prevent a significant hazard to the public, further regulation is through Spill Prevention Control and Countermeasure Plan (SPCC) requirements, managed by the Department of Environmental Health. The gas station facility and all employees are required to be trained in hazardous materials spills and clean-up, and this is ensured by the SPCC requirements. The Environmental Health Department will verify appropriate training certification during annual inspections of the facility. Annual facility inspections conducted by EH will also include Underground Storage Tank (UST) inspections to ensure underground fuel leaching is avoided. The UST inspections are required under the CUPA permit. An Emergency Response Plan (ERP) is also established for the facility via the CUPA permit as well. The ERP includes emergency shut-offs, locations of emergency equipment on site, to include fire extinguishers, spill kit, and first-aid kits; to include a facility site map, and a state site webpage (CERS) that makes the ERP information available to all emergency responders.

Hazardous materials would be used and handled during construction of the project. During construction, varying volumes of petroleum hydrocarbons and their derivatives (e.g. gasoline, oils, lubricants, and solvents) will be used to operate the construction equipment. Hazardous materials anticipated for handling/use during construction would be varying amounts of gasoline and fuel(s) for construction vehicles. The installation of underground storage tanks and fueling of the tanks post construction will also occur, safety precautions have been detailed above. With the additional regulation of a CUPA and SPCC plan/permit amendment, required to further regulate safety, hazardous material handling, and management of a spill and/or transport. A fuel station is a highly regulated land use that is subject to several regulatory agencies oversight. Fuel stations like the one proposed by the project are distributed throughout the local area and the state. There is nothing unique or different about this project, including the project site that would result in an unforeseen impact and therefore the impact of the proposed project would be a **less than significant** related to routine transport, use, or disposal of hazardous materials.

- 9c. There are no existing or proposed schools within one-quarter mile of the proposed project. Therefore, there would be **no impact** related to hazardous emissions or substances near a school.



- 9d. No portion of the project area is included on the Cortese List of hazardous materials sites. Therefore, the project would not create significant hazard to the public or the environment, and **no impact** would occur.
- 9e. The proposed project is not located within an airport land use plan or within two miles of an airport. Therefore, there would be **no impact**.
- 9f. There is no currently adopted emergency response/evacuation plan for the immediate area. In case of an emergency, Highway 49 would serve as the primary route for traffic running north to south from Grass Valley/Nevada City to Auburn. While the project would be utilized by vehicles and residents to the area that would need to evacuate, both during construction and operation, the project site is less than 200-feet away from Highway 49 and would not significantly hinder the flow of traffic during an evacuation. The project also proposes to provide a secondary ingress/egress point onsite. A Fire Protection Plan is not needed for the facility, due to the site falling within a Moderate Fire Severity Zone, per CalFire. Additionally, the convenience store building and fueling canopy will be constructed to current CA Building Code requirements and will have fire sprinklers and other methods of fire response as required per Building Code. Furthermore, if a fire were to occur onsite, the Higgins Fire Protection District, located directly to the north of the project parcel, would respond to any emergencies. Due to the project not exposing people or structures to direct/indirect risk of wildland fires and the project being designed to have secondary access/fire suppression, being adjacent to a highway route, and being directly adjacent to an existing/operating fire protection district, impact is expected to be **less than significant**.
- 9g. Although the project is located within a Moderate fire hazard severity zone, the project area is within a disturbed area, with existing surrounding commercial development. The project will be constructed to current California Building Code requirements, requiring fire sprinklers within the convenience store building, a non-flammable fueling canopy, and additional safety/combustion requirements due to the nature of a gas station having flammable materials onsite. The implementation of the project would increase fire safety compliance, in replacement of the dilapidated/vacant building. Therefore, the potential to expose people or structures to wildland fire hazards would be decreased. As such, the proposed project would result in **less than significant impacts** related to this issue.

**Mitigation Measures:** None required.

## 10. Hydrology and Water Quality

**Existing Setting:** The project area is located within southern unincorporated Nevada County, within Lake of the Pines (LOP) Community Region. There are no streams or rivers on the project property. In addition, there are no wetlands, streams, and drainages present on the project parcel. Ragsdale Creek, a seasonal watercourse, is located directly south of Combie Road, along the public Village Center walking pathway approximately 100-feet from the project site. The project corridor is not located within or near a 100-year flood hazard zone according to the Federal Emergency Management Agency's (FEMA) Flood Information. Finally, the project site is not located within any groundwater basins or priority basins identified by the DWR Bulletin 118, or the SGMA Basin

Prioritization Dashboard. The nearest DWR Bulletin 118 basins are the North and South Yuba Subbasins of the Sacramento Valley Basin (5-21.60 and 5-021.61, respectively) which are more than 15-miles southwest of the proposed project.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		✓			A,G
b. Substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			✓		A,G
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 off-site; 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?		✓			A,C,22
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				✓	A,C,18
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				✓	A,C
f. Place housing within a 100-year flood hazard area as mapped on a federal Flood hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				✓	A,D
g. Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				✓	A,D

**Impact Discussion:**

10a,e. The subject project proposes a commercial development resulting in the construction and operation of fueling station including a 3,323square-foot convenience store, six dual fuel pump stations (12 fueling stations total), associated 2,592 square-foot canopy overhang

above the fueling pumps, and twenty parking stalls with associated electric vehicle charging stations. At the time of application submittal, the project is proposed to be an AM/PM Franchise fueling station. Proposed improvements include the installation of a new fueling station, associated dual fueling pumps, overhead canopy, asphalt parking/circulation, associated landscape/irrigation, and, to include, a drainage swale, multiple catch basins throughout the center of the project area, and several drain areas proposed under the fueling canopy, with storm water drains proposed to properly manage water. There are no present surface or ground water basins on the project parcel. A Stormwater Pollution Prevention Plan (SWPPP) will not be required, as proposed disturbance is under an acre. No Groundwater Sustainability Agency, no Groundwater Sustainability Plan, and no sustainability criteria or goals have been established for the project parcel or surrounding area. Connections to hydrant water supply is existing. Watering trucks will be filled with municipal water, following granted permission. Potential impacts to adjacent drainage areas could include potential run-off of exposed soils from excavation and equipment related pollutants like oil and gas. To protect water quality, **Mitigation Measures 10A and 10B** requires best management practices for preventative erosion and sediment control measures in the project area, to include distribution of these practices to the contractor to ensure compliance. Erosion control measures will need to be included in the improvement plans that correspond to the development. Therefore, project related impacts to water quality standards and waste discharge requirements would be ***less than significant with mitigation***.

10b. As described in the existing setting, the project is not located within an area regulated by the Department of Water Resources (DWR) and State Water Resources Control Board (SWRCB) via the Sustainable Groundwater Management Act (SGMA). This project proposal is not defined as a project under the California Clean Water Act §10912(a) and is therefore not required to complete a water supply assessment. Per the provided NV5 geotechnical report no onsite springs or seeps were observed. Ground water seepage was not encountered in exploratory trenches. There are no prioritized basins or sustainable groundwater management plans for this area, nor is ground water use proposed to be used. The proposed project does not propose to interfere or decrease ground water supplies or interfere with groundwater recharge to the extent that sustainability of groundwater management would be impeded. Water service is provided via municipal water. This area is not a part of a sustainable groundwater management plan. Therefore, the proposed project will not result in impacts to groundwater resources. Offsite run-off will be subject to NPDES permitting and Clean Water Act regulations, to ensure downstream resource are not impacts by the project. Due to the regulations in place for this type of land use as well as it not being in an area subject to the SGMA this projects impact would be ***less than significant***.

10c. The proposed project will not 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. A Preliminary Drainage Report, produced by Millennium Planning & Engineering firm, was produced with the intent to analyze the property and demonstrate that the project is designed to ensure post-development flows will not exceed pre-development flows for a 10-year and 100-year storm, per applicable Nevada County drainage requirements. There are no streams or rivers on the project area. Ragsdale creek is a seasonal stream, located offsite and to the south of Combie Road, no disturbance is

proposed to Ragsdale Creek. Impervious surface on site is existing including the parking lot, internal vehicular circulation areas, existing office building and compacted outdoor yard. Existing asphalt is proposed to be demolished/removed and new asphalt parking and circulation is proposed. The proposed impervious surface includes approximately 25,395 square-feet for the proposed replacement of the existing parking lot and road areas, a total of 8,182 sq. ft. of impervious surface area will be replaced. This amount is well within the impervious surface coverage limits established in the Nevada County Code and is not anticipated to create any substantial impacts to the amount of surface run off and associated impacts. A Preliminary Drainage Report was submitted with the Development Permit application, demonstrating that the resultant drainage from this project will be completely captured onsite through stormwater control devices, to ensure project post-development flows do not exceed existing site flows. Further, the provided drainage report assures that a substantial increase in run off, resulting in run off on/off-site will not occur, to include that produced run off will not exceed capacity of local storm water drainage systems, as required by local standards. Per local General Plan policy, a full hydrologic analysis and detention analysis is required to demonstrate no net increase in peak flow runoff from pre-development to post-development conditions; this has been added as a condition of approval, as the item is a standard requirement at time of building permit review. Substantial altering of existing drainage patterns will not be impeded nor will flood flows be re-directed because of the project. The area is not in a flood zone so the development will not impede or redirect flood flows. Potential for erosion and siltation on/off-site have been addressed through project specific geotechnical report. With the implementation of standard Geotechnical recommendations as required by **Mitigation Measures 7.A** and with the adherence to **Measures 10A and 10B**, which require erosion/sediment control measures and best management practices for stormwater quality in the project area, there will be a **less than significant with mitigation** in relation to alteration of existing drainage patterns.

- 10d. The proposed project is not located within a 100-year flood hazard zone. The project corridor is identified by the as within Zone "X", which is defined as "areas determined to be outside the 0.2% annual chance floodplain" in the Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA). With the project not being in a floodplain or an area prone to flood risk, there would be **no impact** associated with risks of releasing pollutants due to project inundation in flood hazard, tsunami, or seiche zones.
- 10f. No housing is proposed as part of this project, and the project is not within a 100-year flood hazard area. Therefore, there will be **no impacts** related to placing housing within a flood zone.
- 10g. The project is not within a 100-year flood hazard area, so there are **no impacts** related to structures impeding or redirecting flood flows.

**Mitigation Measures:** In addition to **Mitigation Measure 7A**, the following water quality mitigation measures/best management practices (BMPs) are also identified:

**Mitigation Measure 10A: Best Management Practices.** Implement the following BMPs to minimize construction related impacts to water quality. The following BMPs shall be

incorporated into all Contract Documents and Construction Plans for the project and implemented by the contractor to protect water quality:

- a. Construction crews shall be instructed in preventing and minimizing water pollution on the job.
- b. Interim erosion control measures may be needed and shall be installed during construction to assure adequate erosion control facilities are in place at all times.
- c. Straw or rice mulch may be used if needed with a tackifier.
- d. All earth moving or excavation activities shall cease when winds exceed 20 mph.
- e. Haul trucks shall be always covered with tarpaulins or other effective covers.
- f. Use broom and shovels when possible, to maintain a clean site. Use of a hose is not recommended. Introducing water as a cleanup method adds to water pollution.
- g. Designate a concrete washout area, as needed; to avoid wash water from concrete tools or trucks from entering storm drain systems. Maintain washout area and dispose of concrete waste on a regular basis.
- h. Establish a vehicle storage, maintenance, and refueling area, as needed, to minimize the spread of oil, gas, and engine fluids. Use of oil pans under stationary vehicles is strongly recommended.
- i. Dust control measures shall conform to **Mitigation Measure 3A**: Control dust during project construction.

**Timing:** *Prior to grading/building permit issuance and during construction*

**Reporting:** *Agency approval of permits or plans*

**Responsible Agency:** *Planning Department*

**Mitigation Measure 10B: Provide copies of BMPs.** Copies of the project's Mitigation Monitoring and Reporting Program and all BMPs shall be supplied to the Contractor(s) and their workers to assure compliance with mitigation measures during construction.

**Timing:** *Prior to grading/building permit issuance and during construction*

**Reporting:** *Agency approval of permits or plans*

**Responsible Agency:** *Planning Department*

## 11. Land Use and Planning

**Existing Setting:** The subject project property is in southern Nevada County at the intersection of State Route 49 and Combie Road, approximately 100-feet east of State Highway 49, north of Combie Road. The project property is designated as Community Commercial (CC) by the Nevada County General Plan and has a corresponding Zoning Designation of Community Commercial (C2) and includes both the Scenic Corridor (SC) and Site Performance (SP) combining district. The SC combining district applies due to the project's proximity to both State Route 49 and Combie Road. The SP combining district requires adherence to policies and standards of the Greater Higgins Area Plan. The Nevada County General Plan designates this area as the Lake of the Pines Village Center, within the larger Lake of the Pines Community Region. Directly north of the project parcel is the existing/active Higgins Fire Protection District fire house. Located immediately south of Combie Road is a developed commercial center. The center offers services from a variety of commercial tenants, to include the franchise coffee chain "Starbucks", a local "CVS" pharmacy, a "Subway" sandwich shop, a "Holiday Market" franchise, a local real-estate office, and an existing "Chevron" gas station as well. Directly adjacent to the west side of State Highway 49, is an existing

commercial center offering retail and commercial services such as dental services, a local bakery, pet wash, and gas station.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Physically divide an established community?				✓	A,C,23,24
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?			✓		A,C,23,24

**Impact Discussion:**

- 11a. The proposed project is located within a commercial corridor and not a residential community. The establishment of the ARCO AM/PM fueling station and convenience store will not divide an established community and will be located at the entrance of the commercial corridor serving the Lake of the Pines community. Located near State Route 49 with visibility to the highway, will provide convenient access to travelers of this major roadway. All anticipated traffic because of the project will use existing roadways and no traffic closures are expected that could divide the nearby community temporarily during construction. Therefore, the proposed project would have **no impacts** related to division of an existing community.
  
- 11b. No conflict, as a result of this project, are associated with any local land use plan, policy, or adopted regulation with the implementation of the project specific mitigation measures and standard conditions of approval. Since the project is subject to the SC combining district and requires the adherence to the design standards of the Western Nevada County Design Guidelines as refined by the Greater Higgins Area Plan, special consideration was given to the design and aesthetics of the project. As required by the SC Combining District, the project applicant provided a Scenic Corridor Analysis (SCA) which includes an aesthetics analysis that describes the scenic and/or historic resources of the project setting, how the development will ensure compatibility with the scenic nature of the surrounding area, and how the facility will minimize impacts to, identified scenic resources. As described in the project description, the project incorporates several design features to enhance the overall aesthetic of the project, including utilizing design details derived from the existing businesses located directly south of the proposed project. Further, significant streetscape landscaping provides additional screening to soften the view of the site. As discussed in Aesthetics above, potential lighting impacts are mitigated to ensure compliance with County Standards. Overall, the project is consistent with the County design standards and comprehensive site development standards and subsequently, the project will a **less than significant impact** due to any conflicts with land use plans, policies and regulations that have the purpose of mitigating impacts to environmental resources.

**Mitigation Measures:** None required.

## 12. Mineral Resources

**Existing Setting:** Mineral resources, particularly gold, have played a major role in the history of Nevada County. Since 1849, when gold was first discovered in the area, to the years preceding World War II, most of the County's population was economically supported, directly or indirectly, by the local gold mining industry. Other metals produced in the County since 1880 include silver, copper, lead, zinc, chromite, and small amounts of tungsten and manganese. Industrial minerals include barite, quartz for silicon production, and small amounts of limestone, asbestos, clay, and mineral paint. Also, significant deposits of sand, gravel, and rock types suitable for construction aggregate are exposed throughout the County. (Mineral Land Classification of Nevada County, State Division of Mines and Geology, 1990).

In order to promote the conservation of the state's mineral resources, and ensure adequate reclamation of mined lands, the Surface Mining and Reclamation Act of 1975 (SMARA) was enacted. SMARA requires that the State Geologist classify land in California for its mineral resource potential. Local governments are required to incorporate the mineral and classification reports and maps into their general plans and consider the information when making land use decisions. Areas subject to mineral land classification studies are divided into various Mineral Resource Zone (MRZ) categories that reflect varying degrees of mineral potential. Mineral deposits of all types which are designated MRZ-2a or MRZ-2b, are used for areas underlain by mineral deposits where geologic data indicate that significant measured or indicated (MRZ-2a) or inferred (MRZ-2b) resources are present. There are no identified mineral resources in the project vicinity and the project is not located within an MRZ designated area. The closest known mineral resources are located approximately 1.5 miles northeast of the project area.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
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?				✓	A,C,14,32
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?				✓	A,14,32

**Impact Discussion:**

12a,b. The project proposes a new fueling station, to replace abandoned and dilapidated buildings from previously established businesses, on a disturbed and developed parcel. None of the project parcels contain known or designated mineral resources. Therefore, there is **no impact** related to the loss of known mineral resources.

**Mitigation Measures:** None required.

### 13. Noise

**Existing Setting:** The proposed project site is located at the intersection of State Route 49 and the Combie Road intersection. State Route 49 is a four-lane highway approximately 100-200-feet west of the project site, with a speed limit of 55 mile per hour in this area and a high volume of daily traffic. Located south of the project site, across Combie Road is a developed commercial center including several businesses including a Chevron gas station. Both State Route 49 and Combie are the primary sources of ambient noise in the project vicinity. The nearest sensitive receptor is medium density residential development approximately 0.2-miles east of the project site.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess standards established in the local General Plan or noise ordinance, or applicable standards of other agencies?		✓			A, 21
b. Generation of excessive ground borne vibration or ground borne noise levels?			✓		A, 21
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?				✓	A, 21

**Impact Discussion:**

13a. During construction of the proposed site, the noise generated would temporarily increase above current conditions, as the project site is a vacant 1,297 sq. ft. office building that has not been in use for some time. The noise generated by construction is typical for the scale of work being done on this site. Noise sources of primary concern would involve demolition equipment, pneumatic hammers and power cutting tools, heavy equipment with diesel motors and backing alarms, and dirt movers, especially during the demolition portion of operation. This is typical noise generated during any construction site at this scale and should operate during daytime hours. While short-term increases in noise will occur that can be attributed to this project, construction activities are exempt from the County’s Noise Standards as they are temporary in nature and cease once construction is completed. Since existing commercial, uses are located adjacent to the project site, some inconvenience and noise annoyance will occur during construction activities. To assist in reducing this impact, **Mitigation Measures 13A** is included which restricts construction activities to daytime hours (7 a.m. to 7 p.m.) Monday-Saturday. With the observation of this mitigation measure temporary noise impacts will be **less than significant with mitigation**.



- 13b. The proposed project involves the construction of a gas station. Vehicle trips generated from the project would be consistent with the commercial and industrial uses along the Highway 49 corridor. The proposed project would not create a substantial permanent increase in ambient noise levels in the project vicinity nor would it result in any known ground born vibration. Therefore, any impact is **less than significant**.
- 13c. The project site is not located within an airport land use plan or within two miles of a public airport and would not expose people residing or working in the project area to excessive noise levels. In addition, the project is not located within the vicinity of a private airstrip. Therefore, there is **no impact**.

**Mitigation Measures:** To reduce temporary construction noise impacts the following mitigation shall apply:

**Mitigation Measure 13A: Limit Construction Work Hours to 7:00 a.m. to 7:00 p.m. Monday-Saturday.** During grading and construction, work hours shall be limited from 7:00 a.m. to 7:00 p.m., Monday - Saturday. Prior to issuance of grading and building permits, improvement plans shall reflect hours of construction.  
**Timing:** *Prior to Issuance of Grading and Building Permits*  
**Reporting:** *Planning Department Approval of Grading and Building Permits*  
**Responsible Agency:** *Planning Department*

## 14. Population and Housing

**Existing Setting:** The present project parcel includes approximately 0.81-acres of land comprised of relatively flat land situated immediately north of Combie Road, a short distance (100 to 200-feet) east of State Route 49. The project site is developed with a vacant approximately 1,297 sq. ft. office building. The project zoning is Community Commercial “C2” which allows a wide variety of commercial uses subject to specific permitting as required by Nevada County Code Title 12, Section 12.02.040. None of the properties boarding the project site are zoned for residential use, however medium and high density residential zoned properties do exist near the project parcel.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
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)?				✓	A, 21
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				✓	A, 21, 23

**Impact Discussion:**

- 14a. The purpose of the proposed project is to utilize a commercially zoned property and add a new service-based business that can be utilized by both local residents and visitors of the area. The property site has been vacant and void of a commercial tenant for years. The private property has been purchased and is proposed to be developed with a fueling station. No changes to zoning or density are proposed. No new road extensions, infrastructure, or new homes are proposed with the subject project that could otherwise induce an unplanned population growth in the area. Therefore, there is **no impact** on induction of unplanned population growth.
  
- 14b. The project is proposed on a developed but vacant commercially zoned property. The project is located within the commercial corridor of the Lake of the Pines Village Center, close but not immediately adjacent to residential areas and is situated close to a major highway. Due to the sites zoning and location it allows for development compatibility and does not result in noise that would conflict with residential uses. Locating commercial development next to highways also affords businesses added visibility and accessibility to existing and future customers. No residents will be displaced as a result of this project and there is no existing housing, that will be impacted; thus, necessitating the construction of replacement housing elsewhere. Therefore, the proposed project would have **no impact** related to the induction or displacement of housing and people.

**Mitigation Measures:** None required.

## 15. Public Services

**Existing Setting:** The following services are provided within the project corridor:

- Fire: The Higgins Fire Protection District provides fire protection services to the project parcel.
- Police: The Nevada County Sheriff Department provides law enforcement services.
- Schools: The project site is within the Pleasant Ridge Union Elementary School and Nevada Joint Union High School District.
- Parks: The project is within the Bear River Park District.
- Water: The site is served by public water from Nevada Irrigation District.
- Sewer: The site is served by the Nevada County Sanitation District.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Result in substantial adverse physical impacts associated with the provision of or 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 following the public services:					
i) Fire protection?			✓		A, E

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
ii) Police protection?			✓		A
iii) Schools?				✓	A
iv) Parks?			✓		A
v) Other public services or facilities?			✓		A

**Impact Discussion:**

15a. The purpose of the proposed project is to utilize a commercially zoned property and add a new service-based business that can be utilized by both local residents and visitors of the area. The property site is developed but has been vacant and void of a commercial tenant for years. The private property has been purchased and is proposed to be developed with a fueling station. No increase impact is expected to be added to the local school district, as the project will not increase population nor proposes any residential housing. Local park use is not anticipated to be substantially increased. Service provisions from local governmental facilities including services from the local fire protection district and police department is not anticipated to be significantly impacted by the proposed project. Increased service from applicable departments/districts are appropriately designed and applicable fees to compensate for service will be paid at time of building permit issuance and/or certificate of occupancy. Additionally, all applicable service providers have been routed the project during the initial distribution review phase and not no adverse comments indicating that services cannot be provided have been received. Subsequently this project is anticipated to have **a less than significant impact** on public services.

**Mitigation Measures:** None required.

## 16. Recreation

**Existing Setting:** The project parcel is located within the Bear River Recreational Zone and is zoned for commercial use. There are no recreational areas of interest in the immediate vicinity of the project site. The nearest recreational site is approximately 1-mile east of the project site, Huck Finn Pond approximately 0.20-miles east of the project site. No recreational facilities exist on the project parcel.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				✓	A
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?			✓		A,L

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
c. Conflict with established recreation uses of the area, including biking, equestrian and/or hiking trails?				✓	A,L

**Impact Discussion:**

16a,b,c. The project does have the potential to increase the use of existing neighborhood or regional parks or other recreational facilities as a commercial fuel station. The project proposes to include a 12-foot-wide concrete site walk from the eastern extent of the property to the western access point, where it will be reduced to 6-feet in width due to constraints from existing utilities and the slope of the project site. The majority of this work will occur within the Combie Road Right-of-Way and will be designed to allow for future connection to the planned Combie Road roadside trail extending eastward and to the existing cross walk at the Combie Road/State Route 49 intersection. While not specifically a recreational trail, this feature provides for pedestrian and cyclist use and is a requirement for new developed in this area as required by the Greater Higgins Area Plan. Due to the lack of any increase in population from the project, the proposed project would have **less than significant** impact related to recreational facilities, including resulting in a conflict with established recreation uses in the area.

**Mitigation Measures:** None required.

## 17. Transportation

**Existing Setting:** The proposed project site is located at the intersection of State Route 49 and Combie Road in southern Nevada County. The site is served by an existing single encroachment onto Combie Road and is developed with an existing 1,297 sq. ft. commercial office building that has not been used for some time. Combie Road is considered a Minor Arterial and State Route 49 is a Principal Arterial as designated by the Nevada County General Plan. There are currently limited pedestrian facilities in the vicinity of the project. Nevada County Transit Route 5 has a regular bus stop at the Higgins Center directly south across Combie Road. There is a pedestrian crosswalk at the intersection of State Route 49 and Combie Road. The signalized Higgins Road intersection is approximately 200-feet to the east of the project site.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle or pedestrian facilities?			✓		A,D,10,24 35
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			✓		A,D, 28,29,30,3 5

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
c. Substantially increase hazards due to a geometric design feature (e.g., a sharp curve or dangerous intersection) or incompatible uses (e.g., farm equipment)?			✓		A, D, C,35
d. Result in inadequate emergency access?				✓	A, D, 24
e. Result in an increase in traffic hazards to motor vehicles, bicyclists, or pedestrians, including short-term construction and long-term operational traffic?			✓		A,D,C 28,29,30

**Impact Discussion:**

17a. The project proposal would result in the construction of a 3,323 square foot convenience store, a 2,592 square foot fuel canopy with six dual fuel dispensers and associated improvements. Once constructed the ARCO AM/PM fueling station and convenience store is proposed to be open 24-hours a day, 7 days a week. The applicant has submitted with their application, a Traffic Impact Study (TIS) prepared by W-Trans Traffic Engineering Transportation Planning which was used for the review of this project and is kept on file with the Planning Department. This TIS was routed to the County Department of Public Works, Caltrans and the Nevada County Transportation Commission (NCTC) for review and consideration when commenting on the project. In addition to assessing potential trip generation, queuing, safety and providing recommendations to ensure potential traffic impacts would not occur because of this project, the TIS was designed to provide an assessment of CEQA issues and an evaluation of policy related issues. The TIS also analyzed collision data in the vicinity of the project and addressed the overall circulation system including pedestrian, bicycle facilities and transit facilities. Utilizing the International Transportation Engineers (ITE) Trip Generation Manual, 11<sup>th</sup> Edition, 2021 for “Convenience Store/Gat Stations,” the TIS determined that the project would result in a net of 804-average daily trips because 70% of daily trips would be from the passer-by and would not be “new” trips. In total, the determined that the project would result in 52 morning and evening peak hour trips and therefore would not be a significant traffic generator that would conflict with any program, ordinance, or policy.

In addition to reviewing potential trip generation rates, the TIS reviewed the project’s potential impacts on Pedestrian and Bicycle Facilities. While sidewalks and pedestrian facilities do not exist on this side of Combie Road, the project will include the construction of a 12-foot-wide paved multi-purpose path that tapers to 6-feet on the west side of the western entrance. This path is a requirement of the Greater Higgins Area Plan (GHAP) for new development on the north side of Combie Road as shown in Figure 5.2 of the Area Plan and required by GHAP Policy REC-1.3. The GHAP does recommend a 12-foot-wide path, but due to utilities and slope, the taper to 6-feet was deemed to be acceptable by the Nevada County Department of Public Works. This path is an incremental improvement along the project frontage with the intention of later being connected to a larger multi-purpose path along Combie Road some of which is existing and some that will be constructed in the future as a part of the County’s Capital Improvement Program (CIP). To

assist with funding the CIP and to address additional trips generated by this project, as standard condition of approval will require the payment of traffic mitigation fees based on the last fee scheduled adopted by the Nevada County Board of Supervisors. With the construction of the pedestrian improvement along the project frontage and the payment of standard traffic mitigation fees the project will have a **less than significant impact**.

- 17b. In 2018, the Secretary of the Natural Resources Agency promulgated and certified CEQA Guidelines Section 15064.3 to implement Public Resources Code Section 21099(b)(2). Public Resources Code Section 21099(b)(2) states that, “upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any.” In response to PRC 21099(b)(2), CEQA Guidelines Section 15064.3 notes that “Generally, vehicle miles traveled is the most appropriate measure of transportation impacts.”

As of July 1, 2020, the requirement to analyze transportation impacts in CEQA using Vehicle Miles Traveled (VMT) went into effect. Pursuant to the Nevada County’s Transportation Commission’s adopted VMT screening criteria and the Governor’s Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018), this project falls under the adopted screening criteria for VMT because it is a “locally serving” retail project under 50,000 square feet. The proposed project would not increase trips or VMT, but rather redistribute existing trips that are already occurring. Therefore, no VMT analysis is warranted and the project’s impacts associated with VMT increases are considered **less than significant**.

- 17c.e. As discussed above, the project has been reviewed by all applicable agencies including the Nevada County Department of Public Works, Caltrans, the Nevada County Transportation Commission, the Higgins Fire Protection District and the Nevada County Fire Prevention Planner/CalFire. The TIS prepared for the project also analyzed the project, including addressing potential safety and project queuing impacts. The design of the project provides two right-in, right-out entrance points that are designed to meet the County’s Class 1 Commercial Access Standards, with 24-foot-wide travel ways including a 24-foot-wide circulation drive aisle through the project site. The TIS determined that site distance was adequate and that based on the design of the project was well as the anticipated trip generation of the project, that potential safety impacts would not occur due to this project. Further, as a standard County requirement, no obstructions such as signage or landscaping will be allowed to impede site distances. This will be ensured as a standard project condition of approval. In addition, the project is required to obtain an encroachment permit for any work within the County Right of Way and implement a construction management plan as approved by the County Department of Public Works. With the implementation of these two standard conditions of Approval, as well as the standard requirement to not place any visual obstructions near the project entrances and to maintain sight distance for the life of the project, this project’s impacts will be **less than significant** related to potential safety and traffic hazards.

- 17d. The existing roadway system is currently used by the Higgins Fire Protection District for emergency access and no new roadways are proposed with the proposed project. The Higgins Fire Protection District, the Department of Public Works, Caltrans and the Nevada County Fire Prevention Planner/CalFire have reviewed the proposed project and have not identified any significant impacts to emergency access. The proposed project would add right in, right out turn movements off Combie Road with two encroachments into Combie Road near the intersection with SR 49; however, these access points are designed to meet Nevada County design standards, and no adverse impacts have been identified resulting in impacts to emergency access. Therefore, the proposed project will have a ***less than significant*** impact to emergency access.

**Mitigation Measures:** None required.

## 18. Tribal Cultural Resources

**Existing Setting:** Assembly Bill 52 (Chapter 532, Statutes 2014) required an update to Appendix G (Initial Study Checklist) of the CEQA Guidelines to include questions related to impacts to tribal cultural resources. Changes to Appendix G were approved by the Office of Administrative Law on September 27, 2016. Tribal Cultural Resources include sites, features, and places with cultural or sacred value to California Native American Tribes. See Section 5 for additional information regarding tribal resources.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
<p>a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <ul style="list-style-type: none"> <li>i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or</li> <li>ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</li> </ul>		✓			A

**Impact Discussion:**

18a. The focal project area is located within a disturbed corridor that is developed with roadways and a property site that has been previously used for a variety of commercial uses and has facilitated a variety of commercial structures and development on site. The project application was distributed to respective tribal agencies for tribal cultural resource review and comment, no requests for consult were received. Although no known resources are recorded, there is potential that a tribal cultural resource, such as remains, could be found. Proposed **Mitigation Measure 5A** as outlined in Section 5 – Cultural Resources, indicates the halting of work and require tribal involvement in the event of a discovery, as well as **Mitigation Measure 18A** which further adds discretion over any discoveries during construction relating to Tribal Cultural Resources (TCRs). With the described mitigation measures in place, impacts to these Tribal Cultural Resources will be *less than significant with mitigation*.

**Mitigation Measures:** To offset potentially adverse cultural or historical resources impacts associated with the construction activities, the following mitigation measures shall be required and shall be included as notes on all future site plans.

**Mitigation Measure 18A: Unanticipated Tribal Cultural Resources.** The following mitigation measures shall be required and shall be included as notes on all future site plans: If any suspected Tribal Cultural Resources (TCRs) are discovered during ground



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

When avoidance is infeasible, preservation in place is the preferred option for mitigation of TCRs under CEQA and UAIC protocols, and every effort shall be made to preserve the resources in place, including through project redesign, if feasible. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, or returning objects to a location within the project area where they will not be subject to future impacts. Permanent curation of TCRs will not take place unless approved in writing by UAIC or by the California Native American Tribe that is traditionally and culturally affiliated with the project area.

The contractor shall implement any measures deemed by the CEQA lead agency to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including, but not limited to, facilitating the appropriate tribal treatment of the find, as necessary. Treatment that preserves or restores the cultural character and integrity of a TCR may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. Work at the discovery location cannot resume until all necessary investigation and evaluation of the discovery under the requirements of the CEQA, including AB52, have been satisfied.

**Timing:** *Prior to grading/building permit issuance and during construction*

**Reporting:** *Planning Department Approval of Grading and Construction Permits*

**Responsible Agency:** *Planning Department*

**Mitigation:** See **Mitigation Measures 5A.**

## 19. Utilities and Service Systems

**Existing Setting:** The subject project property is in the southern portion of unincorporated Nevada County at the intersection of State Route 49 and Combie Road. The site is served by Pacific Gas & Electric (PG&E) for electricity needs. Solid waste pick up is provided by Waste Management. Nevada Irrigation District serves the parcel with potable water and Nevada County Sanitation Service Area (Lake of the Pines Zone 2) services the site for wastewater disposal. There is an existing Nevada Irrigation District (NID) hydrant located 415-feet to the east of the site.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Require or result in the relocation or the construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?			✓		A,I
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			✓		A,B
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?			✓		A, G
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 goals?		✓			A, D, G
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?		✓			A, D

**Impact Discussion:**

19a. This site does not contain any existing drainage facilities so runoff primarily sheet flows across the site towards the existing/improved Combie Road gutter system, excess water will be routed into the public storm drain network. The project is required to implement stormwater control devices (stormtech chambers) to treat and mitigate the increased runoff caused by the new addition of impervious surface area, as well as ensure that the project, post-development, will not exceed existing site flows. As the improvements are located along a hillside, the design aims to capture as much impervious surface runoff before retaining, infiltrating, and discharging the stormwater back to the natural flow path of the watershed. A Preliminary Drainage Report was submitted with the Development Permit application, the resultant drainage from this project will be completely captured onsite through the on and off-site stormwater control devices, to ensure project post-development flows do not exceed existing site flows. The provided drainage report assures that a substantial increase in run off, resulting in run off on/off-site will not occur, to include that produced run off will not exceed capacity of local storm water drainage systems, as required by local standards. A finalized hydrologic, hydraulic, and detention analysis of the storm drain network proposed is required as a project specific condition of approval during the final design. The project storm drain system will be tied into existing storm drain system which outlets into Ragsdale Creek south of Combie Road. A storm water drainage system is existing and capable of taking new runoff, no facilities need to be re-located because of

this project. With facilities not being required to be re-located and an existing drainage system able to facilitate excess run off, **a less than significant** impact related to such facilities and their environmental effects is anticipated.

- 19b. There is sufficient water supplies available through existing water mains in the area, per the Nevada Irrigation District (NID). NID reviewed the proposed project and provided comment for the need of a Water Demand Analysis, to determine if the existing meter is adequate for the proposed use, which is a standard construction requirement and will be made a standard condition of approval for this project. Regarding landscaping, the proposed landscape is drought tolerant and follows the States' Model Water Efficiency Landscape Ordinance (MWELo). The final landscape design will be required to meet MWELo requirements as a condition of approval. Water fixtures in the structures shall be required to be low-flow and in compliance with California Building Code requirements for efficient use. Because the project will comply with all state and local regulations related to water conservation and is not anticipated large quantities of water as a small commercial use, the impacts related to sufficient water supplies are anticipated to be **less than significant**.
- 19c. The proposed project will connect to the Nevada County public sewer for wastewater services. Lines are existing within the vicinity of the project site. The Nevada County Sanitation Department reviewed the proposed project and no adverse impacts to capacity of the existing sewer system is anticipated from this project. The project site is within the Lake of the Pines Sanitation District Service Area and the project sewer system will be tied-in to the existing a force main that is located east of the project site. Final sewer system design will require approval from the Sanitation District and sewer connect fees will apply. Standard conditions of approval will ensure that these requirements are adhered too. Based on the submitted project materials and the review of said materials by the Nevada County Sanitation District, potential impacts to the wastewater treatment provider are **less than significant**.
- 19d,e. Excess excavated fill is intended to be exported to an appropriate location, based on the conditions of the soil as described above. Non-toxic soil is to be exported to a site that can use the soil, to be determined as the project reaches a defined construction start date and subject to appropriate permitting by the County. Additionally, the existing onsite building and associated parking lot is to be demolished. Demolished material will be disposed of at the McCourtney Road transfer station. The development and operation of the proposed gas station is not anticipated to result in significant amounts of solid waste; however, any waste generated would be required to comply with federal, state and local statutes and regulations related to solid waste. No other solid waste is anticipated as part of this project. Construction of the proposed project could thus result in potentially adverse landfill and solid waste disposal impacts. **Mitigation Measure 19A** requires proper disposal of waste not accepted by the regional landfill. Therefore, the impact to solid waste statutes, goals, standards, and regulations is **less than significant with mitigation**.

**Mitigation Measures:** To offset potentially adverse impacts related to construction waste, the following mitigation measure is recommended:

**Mitigation Measure 19A: Appropriately Dispose of Vegetative and Toxic Waste:** Industrial toxic waste (petroleum and other chemical products) is not accepted at the McCourtney Road transfer station and if encountered, shall be properly disposed of in compliance with existing regulations and facilities. This mitigation measure shall be included as a note on all improvement plans, which shall be reviewed and approved by the Planning Department prior to permit issuance.

**Timing:** *Prior to issuance of grading or improvement permits and during construction*

**Reporting:** *Agency approval of permits or plans*

**Responsible Agency:** *Planning Department*

## 20. Wildfire

**Existing Setting:** The project parcel is within the Higgins Fire Protection District and is designated within a Moderate Fire Hazard Severity Zone by the CalFire Fire Hazard Severity Zone maps. The project site is immediately adjacent to the existing Higgins Fire Protection District fire station which is north of the project site. The site is developed with an existing 1,297 sq. ft. commercial office building, parking lot and overgrown landscaping. There are fifteen trees located on the project, but the site is not densely forested.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?			✓		A,E,J,33
b. Due to slope, prevailing winds, or other factor, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrollable spread of wildfire?			✓		A,C,E,J
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?				✓	A,E,J
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?				✓	A,C,E,J,10

### Impact Discussion:

20a. The proposed project would result in a new ARCO AM/PM fueling station and convenience store of approximately 3,323 sq. ft. with six dual sided fuel pumps. The project will serve primarily pass-by trips, with nearly 70% of the total visitation according to the project Traffic Impact Report. As a small 0.81-acre site, the overall capacity of the site is somewhat limited and will not be a significant destination or area where large populations will

convene. The design of the project includes two ingress and egress points, which due to the center divider in Combie Road, will require right in and out turn movements only. These encouragements/access points are designed to meet Nevada County Class 1 Commercial standards and provide minimum 24-foot-wide road. Internal circulation also meets this standard. The project has been reviewed by the Higgins Fire Protection District, the Nevada County Department of Public Works, CalTrans and the Nevada County Fire Prevention Planner and no adverse impacts from the project resulting the impairment of an emergency or evacuation plan were raised through this review. The site itself is immediately adjacent to the Higgins Fire Protection station that will serve the site, making response times relatively short. Site distances for both entrances are adequate and meeting County standards, and project access and onsite circulation are expected to function acceptably for emergency response vehicles and any additional traffic generated by the project. Therefore, the impact of this project is **less than significant impact** related to the impairment of an adopted emergency response plan or emergency evacuation plan.

- 20b. The project site topography generally slopes from the northwest corner of the property to the southern property line, towards Combie Road, with slopes ranging from 5-20%. The proposed development will be settled into a graded/flattened portion of the site, with the rear of the convenience store near an CMU block retaining wall that will not exceed 8-feet in height. The convenience store and other related structures are designed to meet applicable Building Code requirements and will be equipped with fire walls, overhead sprinklers, and multiple doors for emergency access. All structures will be built to current California Building Code for fire safety including Wildland Urban Interface (WUI) standards and appropriate defensible space/vegetative clearance 100-foot defensible space/fuel reduction zones shall be created and inspected by CALFIRE to minimize risk of fire hazards to structures and project occupants. With overarching State requirements reviewed through future development permitting review, there is a **less than significant impact** related to exposing project occupants to pollutant concentrations from a wildfire or the uncontrollable spread of wildfire.
- 20c. The project does not propose the installation or maintenance of infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk. Therefore, there is **no impact** on exacerbating fire risk or temporary or ongoing impacts to the environment related to installation or maintenance of associated infrastructure.
- 20d. The project does not pose significant risks based on the project site being downstream from a potential flood source or an area with potential for landslides due to run off. Similarly, there is no post-fire slope instability due to soils and the site being flat with gentle slopes. Additionally, the site will be relatively devoid of natural vegetation that could result in potential wildfire impacts. There is also no significant challenges or chances of drainage instability with an existing water drainage system existing. There are also no watercourses in the vicinity of the project site that could receive runoff or sediment from the disposal activities. The project is a relatively typical ARCO AM/PM gas station on a relatively flat parcel within a moderate fire severity hazard zone. Standard requirements for erosion control and regulatory permitting are in place to ensure slope instability, and potential drainage changes because of the project do not impact downstream resources. Subsequently, this project will have no impact to this criterion.

**Mitigation:** None required.

## 21. Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
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 major periods of California's history or prehistory?		✓			A
b. Does the project have environmental effects that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of the project are considered when viewed in connection with the effects of past, current, and probable future projects.)			✓		A
c. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?		✓			A

**Impact Discussion:**

21a. This draft Initial Study and proposed Mitigated Negative Declaration evaluates the potential impact the proposed gas station and associated improvements could have on the environment. Compliance with existing federal, state, and local regulations and mitigation measures identified in this Initial Study will reduce all potential impacts of the proposed project to a less than significant level. As discussed in the Biological Resources section, the project will have less than significant impacts with mitigation on the habitat and populations of protected plant and animal species. The Cultural Resources, Geology and Soils, and Tribal Cultural Resources sections find that impacts to important examples of major periods of California's history or prehistory will also be less than significant with mitigation. With the proposed mitigation measures, this project will have a **less than significant impact with mitigation** 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 major periods of California's history or prehistory.

- 21b. The objective of the project is to establish a new commercial service-based use in a commercial corridor and on a commercially zoned property. This project does not increase allowed density, change allowed uses, or concurrently permit any other scope of work. Once complete the project site will be fully built out. The fueling station and convenience store are subject to all applicable local, state, and federal regulations and permitting, and any future change in use will require environmental review pursuant to CEQA. Therefore, the project's cumulatively considerable impacts are ***less than significant***.
- 21c. The proposed project would not result in any substantial adverse effects to human beings, directly or indirectly, since each potentially significant impact can be reduced to a less than significant level with adherence to the mitigation measures outlined in this report and compliance with existing federal, state, and local regulations. This includes potential impacts to noise, recreation, transportation, public services, population and housing, and utilities and service systems. Therefore, there would be no substantial adverse effects to human beings because of the project, resulting in impacts that would be ***less than significant with mitigation***.

**Mitigation Measures:** To offset potentially adverse impacts to aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, recreation, transportation, tribal cultural resources, and utilities and service systems, see **Mitigation Measures 1A and 1B, 3A through 3G, 4A, 5A, 7A, 10A, 10B, 13A, 17A through 17C, 18A, and 19A.**

# Recommendation of the Project Planner

Based on 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 a "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 EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Prepared by:



Tyler Barrington, Principal Planner

Date: February 7, 2025



## Appendix A – Reference Sources

- A. Nevada County Department of Planning
  - B. Northern Sierra Air Quality Management District
  - C. Nevada County Geographic Information Systems
  - D. Nevada County Department of Public Works
  - E. Higgins Fire Protection District
  - F. North Central Information Service, Anthropology Department, CSU Sacramento
  - G. Nevada County Department of Environmental Health
  - H. Regional Water Quality Control Board (Central Valley Region)
  - I. Nevada County Building Department
  - J. California Department of Forestry and Fire Protection (Cal Fire)
- 
1. Caltrans, 2023. Scenic Highways: California State Scenic Highways. California Department of Caltrans. (2023, April 17). California Important Farmland Finder. Retrieved from <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>
  2. Nevada County. *Nevada County, California County Code*. Retrieved from Title 3 Land Use and Development Code, Chapter II: Zoning Regulations. Site Performance Combining District (SP). Retrieved from: [https://library.municode.com/ca/nevada\\_county/codes/code\\_of\\_ordinances?nodeId=CO\\_OR\\_TIT3LAUSDECO\\_CHIIZORE\\_ART2ZODI\\_SL-II\\_2.7.8SIPECODISP](https://library.municode.com/ca/nevada_county/codes/code_of_ordinances?nodeId=CO_OR_TIT3LAUSDECO_CHIIZORE_ART2ZODI_SL-II_2.7.8SIPECODISP)
  3. Nevada County. *Nevada County, California County Code*. Retrieved from Title 3 Land Use and Development Code, Chapter II: Zoning Regulations. Scenic Corridor (SC). Retrieved from: [https://library.municode.com/ca/nevada\\_county/codes/code\\_of\\_ordinances?nodeId=CO\\_OR\\_TIT3LAUSDECO\\_CHIIZORE\\_ART2ZODI\\_SL-II\\_2.7CODI](https://library.municode.com/ca/nevada_county/codes/code_of_ordinances?nodeId=CO_OR_TIT3LAUSDECO_CHIIZORE_ART2ZODI_SL-II_2.7CODI)
  4. California Department of Conservation. *Important Farmland Categories*. Retrieved from <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx>
  5. Nevada County. *Williamson Act Parcels - Nevada County*. Retrieved from <https://nevcounty.maps.arcgis.com/apps/instant/minimalist/index.html?appid=5984795b1d8f4d2bb2e5687fa4e7690d>
  6. Matuzak, G. Matuzak Environmental Consulting, LLC (2023). Biological Resources Assessment: Higgins Gas Station Development Project.
  7. Nevada County. *Nevada County, California County Code*. Retrieved from Title 3 Land Use and Development Code, Chapter II: Zoning Regulations. Trees. Retrieved from: [https://library.municode.com/ca/nevada\\_county/codes/code\\_of\\_ordinances?nodeId=CO\\_OR\\_TIT3LAUSDECO\\_CHIIZORE\\_ART4COSIDEST\\_DIV4.3REST\\_SL-II\\_4.3.15TR](https://library.municode.com/ca/nevada_county/codes/code_of_ordinances?nodeId=CO_OR_TIT3LAUSDECO_CHIIZORE_ART4COSIDEST_DIV4.3REST_SL-II_4.3.15TR)
  8. Nevada County. *Nevada County, California County Code*. Retrieved from Title 3 Land Use and Development Code, Chapter II: Zoning Regulations. Deer Habitat, Major. Retrieved from: [https://library.municode.com/ca/nevada\\_county/codes/code\\_of\\_ordinances?nodeId=CO\\_OR\\_TIT3LAUSDECO\\_CHIIZORE\\_ART4COSIDEST\\_DIV4.3REST\\_SL-II\\_4.3.7DEHAMA](https://library.municode.com/ca/nevada_county/codes/code_of_ordinances?nodeId=CO_OR_TIT3LAUSDECO_CHIIZORE_ART4COSIDEST_DIV4.3REST_SL-II_4.3.7DEHAMA)
  9. Jensen, S. Genesis Society (2023). Cultural Resources Inventory Survey. Cultural Resource Management Services.

10. Harland Bartholomew & Associates, Inc. (1991). Nevada County Master Environmental Inventory. Retrieved from <https://www.nevadacountyca.gov/DocumentCenter/View/12595/Volume-3-General-Plan-Master-Environmental-Inventory-PDF> Nevada County. (2019).
11. Nevada County Energy Action Plan. Retrieved from <https://www.nevadacountyca.gov/DocumentCenter/View/35183/Nevada-County-Energy-Action-Plan>
12. United States Department of Agriculture Soil Conservation Service and Forest Service in cooperation with University of California Agricultural Experiment Station. (1993). Soil Survey of Nevada County Area, California. Retrieved from <https://websoilsurvey.sc.egov.usda.gov/app/>
13. California Department of Conservation. (2021). EQ Zapp: California Earthquake Hazards Zone Application. Retrieved from <https://maps.conservation.ca.gov/cgs/EQZApp/app/>
14. NV5 Engineering. (2023). *Geotechnical Engineering Report: 10018 Combie Road*.
15. U.S Department of Transportation (2003). Federal Highway Administration. Living with Noise. Retrieved from <https://highways.dot.gov/public-roads/julyaugust-2003/living-noise>
16. California Air Resources Board. (2018, September 28). AB 32 global Warming Solutions Act of 2006. Accessed February 15, 2024. Retrieved from: <https://ww2.arb.ca.gov/resources/fact-sheets/ab-32-global-warming-solutions-act-2006>
17. US Environmental Protection Agency. Current Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. January 31, 2022. Accessed February 15, 2024. Retrieved from [https://www3.epa.gov/airquality/greenbook/anayo\\_ca.html](https://www3.epa.gov/airquality/greenbook/anayo_ca.html)
18. California Emissions Estimator Model (CALEEMOD). California Air Pollution Control Officers Association. Accessed July 05, 2024. Retrieved from <https://caleemod.com/>
19. California Department of Toxic Substance Control EnviroStor. (n.d.) Hazardous Waste and Substances Site List (Cortese). Accessed February 11, 2024. Retrieved from [https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTES&site\\_type=CSITES,FUDS&status=ACT,BKLG.COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29](https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTES&site_type=CSITES,FUDS&status=ACT,BKLG.COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29)
20. CalEPA Regulated Site Portal. (n.d.) Environmental Mapping Tools and Data, Hazardous Waste and Materials. Accessed February 11, 2024. Retrieved from <https://siteportal.calepa.ca.gov/nsite/map/results/summary/811395>
21. Nevada County, Airport Land Use Compatibility Plan. Retrieved from <https://www.nctc.ca.gov/documents/NCALUC/NCALUCP%20Final%209-21-11%20-%20Chapter%201%20-%20Introduction.pdf>
22. Millennium Planning & Engineering. (2023). Preliminary Drainage Report.
23. Nevada County Community Development Agency. (2023). General Plan. Retrieved from <https://www.nevadacountyca.gov/1065/General-Plan>
24. Nevada County, Greater Higgins Area Plan. Retrieved from <https://nevadacountyca.gov/DocumentCenter/View/14844/Greater-Higgins-Area-Plan-PDF>
25. U.S.G.S, 7.5 Quadrangle Topographic Maps, as updated. L. Nevada County Geographic Information Systems. Accessed on June 28, 2024. Retrieved from <https://maps.nevadacountyca.gov/myneighborhood/>
26. Nevada County. Nevada County, California County Code. Retrieved from Title 3 Land Use and Development Code, Chapter II: Zoning Regulations. Noise. Accessed on June 28, 2024. Retrieved from

- [https://library.municode.com/ca/nevada\\_county/codes/code\\_of\\_ordinances?nodeId=CO\\_OR\\_TIT3LAUSDECO\\_CHIIZORE\\_ART4COSIDEST\\_DIV4.1SIDEST\\_SL-II\\_4.1.7NO](https://library.municode.com/ca/nevada_county/codes/code_of_ordinances?nodeId=CO_OR_TIT3LAUSDECO_CHIIZORE_ART4COSIDEST_DIV4.1SIDEST_SL-II_4.1.7NO)
27. Nevada County. Nevada County, California County Code. Retrieved from Title 3 Land Use and Development Code, Chapter II: Zoning Regulations. Commercial Districts\_ Accessed on June 28, 2024. Retrieved from [https://library.municode.com/ca/nevada\\_county/codes/code\\_of\\_ordinances?nodeId=CO\\_OR\\_TIT3LAUSDECO\\_CHIIZORE\\_ART2ZODI\\_SL-II\\_2.4CODI](https://library.municode.com/ca/nevada_county/codes/code_of_ordinances?nodeId=CO_OR_TIT3LAUSDECO_CHIIZORE_ART2ZODI_SL-II_2.4CODI)
  28. Nevada County Transportation Commission. *Nevada County Regional Transportation Plan, 2015-2035*. Accessed on February 11, 2024. Retrieved from [https://www.nctc.ca.gov/documents/RTP/Final%20Nevada%20Co%20RTP%2017\\_18.pdf](https://www.nctc.ca.gov/documents/RTP/Final%20Nevada%20Co%20RTP%2017_18.pdf)
  29. Nevada County Transportation Commission. *Nevada County Active Transportation Plan*. July 2018. Accessed on June 28, 2024. Retrieved from [https://www.nctc.ca.gov/documents/Projects/ATP/NevadaCountyATP\\_Final\\_190703\\_full\\_red.pdf](https://www.nctc.ca.gov/documents/Projects/ATP/NevadaCountyATP_Final_190703_full_red.pdf)
  30. Senate Bill 743 Vehicle Miles Traveled Implementation, Nevada County Transportation Commission. July 06, 2020. Accessed on June 28, 2024. Retrieved from [https://www.nctc.ca.gov/documents/Projects/NCTC\\_SB743\\_Methodologies\\_Thresholds\\_FINAL.pdf](https://www.nctc.ca.gov/documents/Projects/NCTC_SB743_Methodologies_Thresholds_FINAL.pdf)
  31. California Department of Transportation. Accessed on June 28, 2024. California State Scenic Highway System Map. Retrieved from <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>
  32. State Division of Mines and Geology. *Mineral Classification Map*, 1990.
  33. Nevada County. *Local Hazard Mitigation Plan Update*. August 2017. [https://www.mynevadacounty.com/DocumentCenter/View/19365/Nevada-County-LHMP-Update-Complete-PDF?bidId=.](https://www.mynevadacounty.com/DocumentCenter/View/19365/Nevada-County-LHMP-Update-Complete-PDF?bidId=)
  34. Fire Hazard Severity Zone Viewer. CalFire, April 2024. <https://www.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones>
  35. Transportation Impact Study for the Higgins Gas Station Project. W-Trans Consultant Engineering. June 2024. <https://permits.nevadacountyca.gov/citizenaccess/Cap/CapDetail.aspx?agencyCode=NEVCO&capID1=23CAP&capID2=00000&capID3=003R4&Module=Planning&TabName=Planning&LinkHref=True>

**Appendix B: NV5 2023, Geotechnical Engineering Report  
10018 Combie Road: Recommendations**

**Clearing and Grubbing.** The areas to be graded should be cleared and grubbed to remove vegetation and other deleterious materials as described below.

- a. Strip and remove debris from clearing operations and the top 2 to 3 inches of soil containing shallow vegetation, roots and other deleterious materials. The organic topsoil can be stockpiled onsite and used in landscape areas but is not suitable for use as fill. The project geotechnical engineer should approve any proposed use of the spoil generated from stripping prior to placement.
- b. Overexcavate any relatively loose debris and soil that is encountered in our exploratory trenches or any other onsite excavations to underlying, competent material. Possible excavations include exploratory trenches excavated by others, mantles or soil test pits, holes resulting from tree stump or boulder removal, and mining relics.
- c. Although not observed during our investigation, if loose, untested fill is encountered during site development, overexcavate to competent native soil or weathered rock a minimum of 5 feet beyond the areas of proposed improvements.
- d. Overexcavate any encountered leach lines, abandoned sewer, water, and fuel lines, and loose soil in abandoned subsurface utility line trenches within the proposed improvement areas to underlying competent soil, as determined by a representative of NV5.
- e. Remove rocks greater than 8 inches in greatest dimension (oversized rock) from native soil by scarifying to a depth of 12 inches below finish grade in areas to support pavement, slabs-on-grade or other flatwork. Oversized rock may be used in landscape areas, rock landscape walls, or removed from the site. Oversized rock can be stockpiled onsite and used to construct fills, but must be placed at or near the bottom of deep fills and must be placed in windrows to avoid nesting. No oversized rock should be placed in the upper 3 feet of any structural fill. Unless used as rip-rap, oversized rock placed in fill should not be located within 5 feet horizontally of the finished fill slope face. The project geotechnical engineer should approve the use of oversized rock prior to constructing fill.
- f. Fine grained, potentially expansive soil, as determined by NV5, that is encountered during grading should be mixed with granular soil, or overexcavated and stockpiled for removal from the project site or for later use in landscape areas. A typical mixing ratio for granular to expansive soil is 4 to 1. The actual mixing ratio should be determined by NV5.
- g. Vegetation, deleterious materials, structural debris, and oversized rocks not used in landscape areas, drainage channels, or other non-structural uses should be removed from the site.

**Cut Slope Grading.** Based on NV5 understanding of the project at this time, we anticipate that permanent cut slopes up to 5 feet in height will be created during grading of the proposed improvements. In general, permanent cut slopes should not be steeper than 1.5:1, horizontal to vertical (H:V). Steeper cut slopes may be feasible, depending on the soil/rock conditions encountered and should be reviewed on a case-by-case basis. The upper two feet of all cut slopes should be graded to an approximate 2:1, H:V, slope to reduce sloughing and erosion of looser surface soil.

- a. Temporary cut slopes may be constructed to facilitate retaining wall construction. We anticipate that subsurface conditions will be favorable for construction of temporary cut

slopes no steeper than 2:1, H:V, for a maximum height of approximately 6 feet. To reduce the likelihood of sloughing or failure, temporary cut slopes should not remain over the winter.

- b. A representative of NV5 must observe temporary cut slopes steeper than 1.5:1, H:V, during grading to confirm the soil and rock conditions encountered. We recommend that personnel not be allowed between the cut slope and the proposed retaining structure, form work, grading equipment, or parked vehicles during construction, unless the stability of the slope has been reviewed by NV5 or the slope has been confirmed to meet OSHA excavation standards.

**Soil Preparation for Fill Placement.** Where fill placement is proposed, the surface soil exposed by site clearing and grubbing should be prepared as described below:

- a. The surface soil should be scarified to a minimum depth of 12 inches below the existing ground surface, or to resistant rock, whichever is shallower. Following scarification, the soil should be uniformly moisture conditioned to within approximately 3 percentage points of the ASTM D1557 optimum moisture content.
- b. The scarified and moisture conditioned soil should then be compacted to achieve a minimum relative compaction of 90 percent based on ASTM D1557 maximum dry density. The moisture content, density, and relative percent compaction should be verified by a representative of NV5. The earthwork contractor should assist our representative by excavating test pads with onsite earth moving equipment.
- c. The prepared native soil surface should be proof-rolled with a fully loaded, 4,000-gallon-capacity water truck with the rear of the truck supported on a double-axle, tandem-wheel undercarriage or approved equivalent. Proof rolling must be observed by the geotechnical engineer's representative to be firm, competent and relatively unyielding.
- d. Where fill placement is proposed on native slopes steeper than approximately 5:1, H:V, a base key and routine benches must be provided. Unless otherwise recommended by the project geotechnical engineer, the base key should be excavated at the toe of the fill a minimum of 2 feet into competent stratum, as determined by a representative of NV5 during construction observation. The bottom of the base key should be sloped slightly into the hillside at an approximate gradient of 5 percent or greater.
- e. The fill must be benched into existing side slopes as fill placement progresses. Benching must extend through loose surface soil into firm material, and at intervals such that no loose surface soil is beneath the fill. As a minimum, a horizontal bench should be excavated every 5 vertical feet or as determined by a representative of NV5.
- f. The native soil surface should be graded to minimize ponding of water and to drain surface water away from the building foundations and associated structures. Where possible, surface water should be collected, conveyed and discharged into natural drainage courses, storm sewer inlet structures, permanent engineered stormwater runoff percolation/evaporation basins or engineered infiltration subdrain systems.

**Fill Placement.** Soil fill placement proposed for the project should incorporate the following recommendations:

- a. Soil used for fill should consist of uncontaminated, predominantly granular, non-expansive native soil or approved import soil. If encountered, rock used in fill should be broken into pieces no larger than 8 inches in diameter. Rocks larger than 8 inches are considered

- oversized material and should be stockpiled for off-haul or later use in landscape areas and drainage channels. If approved by the project geotechnical engineer, oversized rock may be placed at or near the bottom of deep fills. Oversized rock must be placed in windrows to avoid nesting and to facilitate the placement of compacted fill. No oversized rock should be placed in the upper 3 feet of any structural fill. The project geotechnical engineer should approve the use of oversized rock prior to constructing fill.
- b. Import soil should be predominantly granular, non-expansive and free of deleterious material. Import material that is proposed for use onsite should be submitted to NV5 for approval and possible laboratory testing at least 72 hours prior to transport to the site.
  - c. Cohesive, predominantly fine grained, or potentially expansive soil encountered during grading should be stockpiled for removal, mixed as directed by NV5, or used in landscape areas. As an option, cohesive fine grained, or potentially expansive soil can often be placed in the deeper portions of proposed fill (e.g., depths greater than 3 feet below subgrade in building footprints). However, this option would have to be evaluated on a case-by-case basis with consideration of the fill depth and proposed loading.
  - d. Soil used to construct fill should be uniformly moisture conditioned to within approximately 3 percentage points of the ASTM D1557 optimum moisture content. Wet soil may need to be air dried or mixed with drier material to facilitate placement and compaction, particularly during or following the wet season.
  - e. Fill should be constructed by placing uniformly moisture conditioned soil in maximum 8-inch- thick loose, horizontal lifts (layers) prior to compacting.
  - f. The earthwork contractor should compact each loose soil lift with a tamping foot compactor such as a Caterpillar (CAT) 815 Compactor or equivalent as approved by NV5's project engineer or his/her field representative. A smooth steel drum roller compactor should not be used to compact loose soil lifts for construction of engineered fills.
  - g. All fill should be compacted to a minimum relative compaction of 90 percent of the ASTM D1557 maximum dry density. The upper 12 inches of fill in paved areas, beneath proposed slabs-on- grade, and within the proposed building footprint should be compacted to a minimum of 95 percent relative compaction.
  - h. The moisture content, density and relative percent compaction of fill should be confirmed by a representative of NV5 during construction.
  - i. The prepared finished grade or finished subgrade soil surface should be proof-rolled with a fully loaded, 4,000-gallon-capacity water truck with the rear of the truck supported on a double-axle, tandem-wheel undercarriage or approved equivalent. The proof-rolled surface should be visually observed by the project engineer or his/her field representative to be firm, competent and relatively unyielding. Proof rolling must be observed by the geotechnical engineer's representative.

**Rock Fill Placement.** Based on NV5 observation of the rocky nature of the subsurface conditions revealed in our exploratory trenches, we anticipate that fill material generated from some areas of the project site may contain significant rock fragments, and that compaction testing with conventional methods may be difficult or inappropriate. Typically, fill that consists primarily of soil can be tested for relative compaction by using a nuclear density gauge. Our opinion is that rock fill cannot be reliably tested using this method.

- a. We recommend that quality assurance during rock fill placement be based on a procedural approach, or method specification, rather than a specified relative compaction. The procedural requirements will depend on the equipment used, as well as the nature of the

fill material, and will need to be determined by the geotechnical engineering firm onsite. Typically, procedural recommendations are based on the measured relative compaction of a test fill constructed onsite.

- b. Based on our experience in the area, we anticipate that the procedural specification will require a minimum of six passes (back and forth equaling one pass) with a Cat 563 or similar, self-propelled, vibratory compactor to compact a maximum 8-inch thick, loose lift. Processing or screening of the fill material will be needed to remove rocks larger than approximately 8 inches in maximum dimension. Continuous or nearly continuous observation by a representative of NV5 would be required during fill placement to confirm that procedural specifications have been met.

**Differential Fill Depth.** The recommendations presented in this section are intended to reduce the magnitude of differential settlement-induced structural distress associated with variable fill depth beneath structures.

- a. Site grading should be performed so that cut-fill transition lines do not occur directly beneath any structures. The cut portion of the cut-fill building pads, if proposed, should be scarified to a minimum depth of 8 inches, and recompact to 95 percent relative compaction.
- b. Differential fill depths beneath structures should not exceed 5 feet. For example, if the maximum fill depth is 8 feet across a building pad, the minimum fill depth beneath that pad should not be less than 3 feet. If a cut-fill building pad is used in this example, the cut portion would need to be overexcavated 3-feet and rebuilt with compacted fill.

**Slope Grading.** Anticipated fill slopes are to be up to 4 feet in height and will be created as part of proposed improvements. In general, permanent fill slopes created onsite should be no steeper than 2:1, H:V. NV5 should review fill slope configurations greater than approximately 10 feet in height, if proposed, prior to fill placement. Compaction and fill slope grading must be confirmed by NV5 in the field.

- a. Steeper fill slopes may be feasible with the use of geotextile reinforcement and/or rock facing. We can provide reinforced or buttressed fill slope design for the project, if requested.
- b. Fill should be placed in horizontal lifts to the lines and grades shown on the project plans. Slopes should be constructed by overbuilding the slope face and then cutting it back to the design slope gradient. Fill slopes should not be constructed or extended horizontally by placing soil on an existing slope face and/or compacted by track walking. Where placement of oversized rock in deep fill is proposed, the oversized rock should be placed a minimum of 5 feet horizontally from the finished fill slope face.

**Erosion Controls.** Graded portions of the site should be seeded as soon as possible to allow vegetation to become established prior to and during the rainy season. In addition, grading that results in greater than one acre of soil disturbance or in sensitive areas may require the preparation of a site-specific storm water pollution prevention plan. As a minimum, the following controls should be installed prior to and during grading to reduce erosion.

- a. Prior to commencement of site work, fiber rolls should be installed down slope of the proposed area of disturbance to reduce migration of sediment from the site. Fiber rolls on

- slopes are intended to reduce sediment discharge from disturbed areas, reduce the velocity of water flow, and aid in the overall revegetation of slopes. The fiber rolls should remain in place until construction activity is complete and vegetation becomes established.
- b. All soil exposed in permanent slope faces should be hydroseeded or hand seeded/strawed with an approximate seed mixture compatible with the soil and climate conditions of the site as recommended by the local Resource Conservation District.
  - c. Following seeding, jute netting or erosion control blankets should be placed and secured over the slopes steeper than 2:1, H.V.
  - d. Surface water drainage ditches should be established as necessary to intercept and redirect concentrated surface water away from cut and fill slope faces. Under no circumstances should concentrated water be directed over slope faces. The intercepted water should be discharged into natural drainage courses or into other collection and disposal structures.

**Underground Utility Trenches.** Underground utility trenches should be excavated and backfilled as described below:

- a. Based on subsurface conditions observed in our exploratory trenches, we anticipate that resistant rock at shallow depths will limit utility trench excavations. Pre-ripping of the trench alignment, blasting, or splitting may be required, particularly if utility trench excavations are deeper than 3-feet.
- b. The California Occupational Safety and Health Administration (OSHA) requires all utility trenches deeper than 4-feet bgs be shored with bracing equipment prior to being entered by any individuals, whether or not they are associated with the project.
- c. We anticipate that shallow subsurface seepage may be encountered, particularly if utility trenches are excavated during the winter, spring, or early summer. The earthwork contractor may need to employ dewatering methods as discussed in Section 5.1.10, "Construction Dewatering," to excavate, place and compact the trench backfill materials.
- d. Trench backfill used within the bedding and shading zones should consist of  $\frac{3}{4}$ -inch minus crushed rock, granular material with a sand equivalent greater than 30, or similar material approved by the project engineer.
- e. Soil used as trench backfill should consist of non-expansive soil with a plasticity index (PI) less than or equal to 15 and should not contain rocks greater than 3 inches in greatest dimension unless otherwise approved by the geotechnical engineer.
- f. Where utility trenches will intersect perimeter footings or pass within the proposed building footprint, we recommend that a low permeability backfill plug be placed to reduce water migration and infiltration. In general, a low permeability, predominantly fine-grained soil backfill, sand-cement slurry, or other approved material should be placed within five feet of the building exterior.
- g. Trench backfill should be constructed by placing uniformly moisture conditioned soil in maximum 12-inch-thick loose lifts prior to compacting.
- h. Trench backfill should be compacted to a minimum relative compaction of 90 percent of the ASTM D1557 maximum dry density. In areas of proposed pavement or concrete flatwork, the upper 12 inches of backfill should be compacted to a minimum relative compaction of 95 percent of the ASTM D1557 maximum dry density. Jetting is not an acceptable method of compacting trench backfill or bedding sand.
- i. The loose lift thickness, moisture, density and relative compaction of the trench backfill soil should be observed by a representative of NV5 during placement.



- j. Construction quality assurance tests should be performed at a frequency determined by the project geotechnical engineer. Where trench backfill is placed at depths greater than approximately 4 feet, or where potentially unstable sidewall conditions exist, shoring may need to be provided by the contractor to facilitate compaction testing. If shoring is not provided or unsafe conditions are encountered, full time observation will likely be required to confirm compactive effort.
- k. Final Proof Rolling: The prepared finished grade AB rock surface and/or finished subgrade soil surface of utility trench backfills should be proof-rolled with a fully loaded, 4,000-gallon-capacity water truck with the rear of the truck supported on a double-axle, tandem-wheel undercarriage or approved equivalent. The proof-rolled surface should be visually observed by the project engineer or his/her field representative to be firm, competent and relatively unyielding.

**Construction Dewatering.** Seepage may be encountered during grading, particularly in deeper excavations made during site preparation. The earthwork contractor should be prepared to dewater excavations if seepage is encountered during grading. Seepage may be encountered if grading is performed during or immediately after the rainy season. In addition, perched groundwater may be encountered on low permeability soil or weathered rock layers even during the summer months.

- a. If subsurface seepage or groundwater conditions are encountered which prevent or restrict fill placement or construction of the proposed improvements, subdrains may be necessary. If groundwater or saturated soil conditions are encountered during grading, we should be retained to observe the conditions and provide site specific subsurface drainage recommendations.

**Surface Water Drainage.** Proper surface water drainage is important to the successful development of the project. We recommend the following measures to help mitigate surface water drainage problems:

- a. Slope final grades in structural areas so that surface water drains away from building pad finish subgrade at a minimum 2 percent slope for a minimum distance of 10-feet. For structures utilizing slab-on-grade interior floor systems we recommend increasing the slope to 4 percent.
- b. To reduce surface water infiltration, compact and slope all soil placed adjacent to building foundations such that water is not allowed to pond. Backfill should be free of deleterious materials.
- c. Direct downspouts to positive drainage or a closed collector pipe that discharges flow to positive drainage.
- d. Construct V-ditches at the top of cut and fill slopes where necessary to reduce concentrated surface water flow over slope faces. Typically, V-ditches should be 3 feet wide and at least 6 inches deep. Surface water collected in V-ditches should be directed away and downslope from proposed building pads and driveways into a drainage channel.

**Soil Corrosion Potential.** Index testing of the soil in an effort to evaluate corrosion potential was not performed as a part of our soil evaluation. Based on review of information from the Web Soil Survey, the native soil conditions onsite possess a low to moderate corrosion potential for uncoated steel and a moderate to high corrosion potential for concrete.

- a. To reduce the likelihood of corrosion problems, materials used for underground utilities, permanent subsurface drainage improvements, and foundation systems should be selected based on local experience and practice. If alternative or new construction methods or materials are being proposed, it may be appropriate to have the selected materials evaluated by a corrosion engineer for compatibility with the onsite soil and groundwater conditions.

**Grading Plan Review and Construction Monitoring.** Construction quality assurance includes review of plans and specifications and performing construction monitoring as described below.

- a. NV5 should be retained to review the final grading plans prior to construction to confirm our understanding of the project at the time of our investigation, to determine whether our recommendations have been implemented, and to provide additional and/or modified recommendations, if necessary.
- b. NV5 should be retained to perform construction quality assurance (CQA) monitoring of all earthwork grading performed by the contractor to determine whether our recommendations have been implemented, and if necessary, provide additional and/or modified recommendations.

**Seismic Design Criteria.** Our classification of on-site soil conditions is based on field observations and laboratory tests. The on-site soil primarily consists of granular soil composed of silty soil with shallow bedrock. Based on the presence of predominantly granular soil and resistant rock at relatively shallow depths, we classified the on-site soil as very dense soil and soft rock (Site Class "C") for design purposes.

- a. NV5 developed the code-based seismic design parameters in accordance with Section 1613 of the 2022 California Building Code (CBC), and the Structural Engineers Association of California (SEAOC) and California Office of Statewide Health Planning and Development (OSHPD) Seismic Design Maps web application. The internet-based application (<https://seismicmaps.org/>) is used for determining seismic design values from the 2016 ASCE-7 Standard in accordance with the 2022 CBC. Table 5.2.1-1 below summarizes seismic design criteria. The Seismic Design Parameter detailed report from the SEAOC/OSHPD analysis is provided in Appendix A, reference 10 (NV5, 2023).

**Foundations.** Provided that the grading for the project is performed in accordance with the recommendations presented in this report, our opinion is that the site will be suitable for the use of conventional perimeter foundations, isolated interior footings, and interior slabs-on-grade. Following are our recommendations for foundations constructed on compacted and tested fill or competent native soil:

- a. Footings for single story structures should be a minimum of 12 inches wide and trenched through any loose surface material, potentially expansive soil, or untested fill, and a minimum of 12 inches into competent native soil, weathered rock or compacted fill. Footings for two-story structures, if proposed, should be a minimum of 15 inches wide and trenched a minimum of 18 inches into competent native soil, weathered rock or compacted fill. If clay is encountered at the base of footing excavations, the footing should be deepened through the clay into underlying granular material or weathered rock, as determined in the field by NV5.

- b. The base of the footing excavation should be approximately level. On sloping sites, it will be necessary to step the base of the footing excavation as necessary to maintain a slope of less than 10 percent at the base of the footing.
- c. Footing trenches should be cleaned of all loose soil and construction debris prior to placing concrete. A representative from NV5 should observe the footing excavations prior to concrete placement.
- d. As a minimum, the footings should be designed with two No. 4 rebar reinforcement, one near the top of the footing and one near the bottom. A minimum of 3 inches of concrete coverage should surround the bars.
- e. To avoid imposing additional loads on existing foundations, new footings that are constructed adjacent to existing foundations should have a bottom elevation lower than or equal to the base of the existing footings.
- f. In general, structures constructed adjacent to descending slopes should employ a minimum setback of either 1/3 the height of the slope, or 40 feet, whichever is less. The setback for ascending slopes is either 1/2 the slope height or 15 feet, whichever is less. Where footings are proposed within these code-based setbacks, the project geotechnical engineer should review the proposed slope configuration and provide revised setback recommendations, if appropriate.
- g. Footing excavations should be saturated prior to placing concrete to reduce the risk of problems caused by wicking of moisture from curing concrete. However, concrete should not be placed through standing water in the footing excavations.
- h. In an effort to reduce the likelihood of settlement-induced distress to the proposed structures, we recommend that strip and isolated footings with a minimum embedment depth of 12 inches in competent soil be sized for an allowable bearing capacity of 2,500 psf dead plus live loads. This value can be increased by 300 psf for each additional foot of embedment up to a limiting value of 3,100 psf. Allowable bearing may be increased by 33 percent for additional transient loading, such as wind or seismic loads.
- i. A triangularly-distributed lateral resistance (passive soil resistance) of 300 psf., where  $d$  is footing depth, may be used for footings. This value may be increased by 33 percent for wind and seismic. As an alternate to the passive soil resistance described above, a coefficient of friction for resistance to sliding of 0.35 may be used. The higher of the two values should be reduced by 50 percent if both resisting values are to be used.
- j. Total settlement of individual foundations will vary depending on the plan dimensions of the foundation and actual structural loading. Based on anticipated foundation dimensions and loads, we estimate that total post-construction settlement of footings designed and constructed in accordance with our recommendations will be on the order of one-half inch. Differential settlement between similarly loaded, adjacent footings is expected to be less than one-quarter inch, provided footings are founded on similar materials (e.g., all on structural fill, native soil or rock). Differential settlement between adjacent footings founded on dissimilar materials (e.g., one footing on soil and an adjacent footing on rock) may approach the maximum anticipated total settlement. Settlement of foundations is expected to occur rapidly and should be essentially complete shortly after initial application of loads.
- k. Prior to placing concrete in any foundation excavation, the project geotechnical engineer or his/her field representative should observe the excavations to document that the following requirements have been achieved: minimum foundation dimensions, minimum reinforcement steel placement and dimensions, removal of all loose soil, rock, wood debris or other deleterious materials, and that firm and competent native or engineered fill soil is

exposed along the entire foundation excavation bottom and no expansive soil is observed. Strict adherence to these requirements is paramount to the satisfactory behavior of a building foundation. Minor deviations from these requirements can cause the foundations to undergo minor to severe amounts of settlement which can result in cracks developing in the foundation and adjacent structural members, such as concrete slab-on-grade floors.

**Slab on Grade Floor Systems.** NV5 opinion is that interior concrete slab-on-grade floors may be used in conjunction with perimeter concrete foundations for the proposed improvements. The project structural engineer should design slabs-on-grade with regard to the anticipated loading. This section presents typical slab sections and reinforcement schedules used for residential construction in the region and presents construction recommendations. We can provide project specific slab-on-grade design for the proposed improvements once anticipated loading and serviceability criteria have been established.

- a. The slab-on-grade should be a minimum of 4 inches thick. If floor loads higher than 250 psf or intermittent live loads are anticipated, a structural engineer should determine the slab thickness and steel reinforcing schedule.
- b. The subgrade soil around the slabs-on-grade should be sloped away from the proposed slab subgrade a minimum of 4 percent for a distance of 10 feet as discussed in the Surface Water Drainage section of this report. A representative from NV5 should observe pad and subgrade elevations prior to forming the slab footings.
- c. As a minimum, No. 3 rebar on 24-inch centers or flat sheets of 6x6, W4.0xW4.0 welded wire mesh (WWM) should be used as slab reinforcement. We do not recommend using rolls of WWM because vertically centered placement of rolled mesh within the slab is difficult to achieve. All rebar and sheets of WWM should be placed in the center of the slab and supported on concrete "dobies". We do not recommend "hooking and pulling" of steel during concrete placement.
- d. Prior to placing the vapor retarder and concrete, slab subgrade soil must be moisture conditioned to between 75 and 90 percent saturation to a depth of 24 inches. Moisture conditioning should be performed for a minimum of 24 hours prior to concrete placement. Clayey soil may take up to 72 hours to reach this required degree of saturation. If the soil is not moisture conditioned prior to placing concrete, moisture will be wicked out of the concrete, possibly contributing to shrinkage cracks. Additionally, our opinion is that moisture conditioning the soil prior to placing concrete will reduce the likelihood of soil swell or heave following construction at locations where fine grained, potentially expansive soil is encountered. To facilitate slab-on-grade construction, we recommend that the slab subgrade soil be moisture conditioned following rock placement. Following moisture conditioning, the vapor retarder should be placed.
- e. Slabs should be underlain by 4 inches of washed rock. The rock should be uniformly graded so that 100% passes the 1-inch sieve, with 0% to 5% passing the No. 4 sieve. Following rock placement, the subgrade soil should be moisture conditioned for 24 hours. The rock should then be overlain by a vapor retarder at least 15 mils thick. All penetrations through the vapor retarder should be taped or sealed to reduce vapor. Laps in the vapor retarder should be taped. If requested, NV5 can provide observation of the vapor retarder prior to placing concrete. The vapor retarder may be omitted in areas that do not have moisture sensitive floor coverings (i.e., exterior parking areas).
- f. Regardless of the type of vapor retarder used, moisture can wick up through a concrete slab. Excessive moisture transmission through a slab can cause adhesion loss, warping

and peeling of resilient floor coverings, deterioration of adhesive, seam separation, formation of air pockets, mineral deposition beneath flooring, odor and fungi growth. Slabs can be tested for water vapor transmissivity prior to the installation of moisture sensitive flooring. Commercial sealants, entrained air, fly ash and a reduced water to cement ratio can be incorporated into the concrete to reduce slab permeability. A waterproofing consultant should be contacted if moisture sensitive flooring is proposed.

- g. Expansion joints should be provided between the slab and perimeter footings. Control joints should bisect the length and width of the slab at intervals specified by the American Concrete Institute (ACI) or Portland Concrete Association (PCA).
- h. Exterior slabs-on-grade, such as sidewalks, may be placed directly on compacted fill without the use of a base rock section. For exterior slabs, the native soil should be ripped, moisture conditioned and recompacted to an 8-inch depth per the grading recommendations presented in this report.
- i. All deleterious material must be removed prior to placing concrete.
- j. We recommend that concrete have a water/cement ratio no greater than 0.45. Pozzolans or other additives may be added to increase workability.
- k. Concrete slabs should be moisture cured for at least seven days after placement. Excessive curling of the slab may occur if moisture conditioning is not performed. This is especially critical for slabs that are cast during the warm summer months.
- l. Concrete slabs impart a relatively small load on the subgrade (approximately 50 psf). Therefore, some vertical movement should be anticipated from possible expansion or differential loading. For Expansive Soil Sites, Or Multi-Lot Residential Development, This Should Be Considered; A floor level survey should be considered to establish a baseline for the initial slab condition, particularly where potentially expansive soil conditions are encountered. This survey should be performed following framing and roof construction, and prior to the installation of floor coverings.

**Retaining Wall Design Criteria.** Table 5.2.4-1 (NV5, 2023) presents equivalent fluid unit weights for cut native soil and onsite fill compacted per the grading recommendations presented in this report. For approximately horizontal backfill we assume that the retained fill surface will be no steeper than 10% for a minimum distance of the wall height from the back of the retaining wall. If surcharge loads (such as adjacent building foundations) or live loads will be applied within a distance of the wall height from the back of the wall, we should be retained to review the loading conditions and revise our recommendations, if necessary. The passive pressures provided assume footings are founded in competent native soil or engineered fill. Recommendations for design and construction of retaining walls are listed below:

- a. Compaction equipment should not be used directly adjacent to retaining walls unless the wall is designed or braced to resist the additional lateral pressures.
- b. If any surface loads are closer to the top of the retaining wall than its height, NV5 should review the loads and loading configuration. We should be retained to review wall details and plans for any wall over 12 feet in height.
- c. All retaining walls must be well drained to reduce hydrostatic pressures. Walls should be provided with a drainage blanket to reduce additional lateral forces and minimize saturation of the backfill soil. Drainage blankets may consist of graded rock drains or geosynthetic blankets.
- d. Rock drains should consist of a minimum 12-inch wide, Caltrans Class II, permeable drainage blanket, placed directly behind the wall; or crushed washed rock enveloped in a

non-woven geotextile filter fabric such as Amoco 4546™ or equivalent. Drains should have a minimum 4-inch diameter, perforated, schedule 40, PVC pipe placed at the base of the wall, inside the drainrock, with the perforations placed down. The PVC pipe should be sloped so that water is directed away from the wall by gravity. A geosynthetic drainage blanket such as Enkadrain™ or equivalent may be substituted for the rock drain, provided the collected water is channeled away from the wall. If a geosynthetic blanket is used, backfill must be compacted carefully so that equipment or soil does not tear or crush the drainage blanket.

- e. Adequate drainage and waterproofing for retaining walls associated with finished interior spaces are essential to reduce the likelihood of seepage and vapor transmission into the living space. We recommend that an appropriate waterproofing sealant be applied to the exterior surface of such retaining walls. A waterproofing consultant may be contacted to further review seepage and vapor transmission.
- f. Additional lateral loading on retaining structures due to seismic accelerations may be considered at the designer's option. For an earthquake producing a design horizontal acceleration of 0.2g, we recommend that the resulting additional lateral force applied to unrestrained (cantilevered) retaining structures with drained level backfill onsite be estimated as  $P_{ae}=4H^2$  pounds, where H is the height of the wall in feet. The additional seismic force may be assumed to be applied at a height of 0.3H above the base of the wall. This seismic loading is for a drained, level backfill condition only; NV5 should be consulted for values of seismic loading due to non-level or non-drained backfill conditions. The use of reduced factors of safety is often appropriate when reviewing overturning and sliding resistance during seismic events.

**Pavement Design.** The following recommended asphalt concrete flexible pavement sections are based on a design R-value of 8 and preliminary traffic indices (TIs) of 4 and 5. The TIs are being considered on a preliminary basis to facilitate planning of the proposed onsite and offsite roadways. Other TIs may need to be considered in design if heavy vehicle loads, truck traffic, or improvements to the adjacent streets are proposed. Pavement design is presented in Table 5.2.5-1 (NV5, 2023). The following recommendations are in regard to paving at the site.

- a. Fill must be compacted to a minimum of 90 percent of the maximum dry density per ASTM D 1557, Modified Proctor. The upper 6 inches of subgrade in areas to be paved must be compacted to a minimum of 95 percent per ASTM D 1557. Baserock should be compacted to a minimum of 95 percent per ASTM D 1557. Moisture content, density and relative percent compaction should be verified by NV5. In addition to density testing, the subgrade must be proofrolled under the observation of a representative of NV5, prior to baserock placement.
- b. Subgrade should be sloped to drain away from the proposed road alignment.
- c. Import soil, if used, should be predominantly granular, non-expansive and free of deleterious material. Proposed import should be submitted to NV5 for testing prior to transport to the site.
- d. Steel reinforced concrete slabs should be considered for use in loading bays, service docks, garbage facilities, and other areas where frequent, heavy vehicle loads are anticipated. The project structural engineer should determine slab thickness and steel reinforcement.
- e. Depending on the subsurface conditions encountered and the sources of fill, the actual subgrade material may vary significantly from that tested during this investigation.

Representative subgrade samples should be obtained, and additional R-value tests performed, if appropriate, to confirm the recommendations in this report. If the results of confirmation testing vary significantly from those used in design, the recommended pavement sections may need to be revised.