ADMINISTRATIVE REVIEW DRAFT

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

FOR THE

TUDOR ROAD TRUCK YARD

1777 TUDOR ROAD
SUTTER COUNTY, CA

SUTTER COUNTY PROJECT #U22-0005 (THIARA)

MARCH 2023

Prepared for:
SUTTER COUNTY DEVELOPMENT SERVICES DEPARTMENT
1130 CIVIC CENTER BOULEVARD
YUBA CITY, CA 95993

Prepared by:
BASECAMP ENVIRONMENTAL, INC.
802 W. LODI AVENUE
LODI, CA 95240

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LIST OF ACRONYMS AND ABBREVIATONS USED IN THIS DOCUMENT

AB	Assembly Bill
BMP	Best Management Practice
CalEEMod	California Emissions Estimator Model
CAP	Climate Action Plan
CARB	California Air Resources Board
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
CUPA	Certified Unified Program Agency
dBA	decibel, A-weighted
DPM	diesel particulate matter
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
FRAQMD	Feather River Air Quality Management District
GHG	greenhouse gas
Leq	equivalent sound level
LOS	Level of Service
NAHC	Native American Heritage Commission
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
OPR	Governor's Office of Planning and Research
PM10	particulate matter 10 microns or less in diameter
PM2.5	particulate matter 2.5 microns or less in diameter
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
STAA	Surface Transportation Assistance Act
SWPPP	Storm Water Pollution Prevention Plan
TRU	Transport Refrigeration Unit
USDA	United States Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
VdB	vibration decibel
VMT	vehicle miles traveled

Sutter County
Initial Study

A. PROJECT INFORMATION

1. Project Title: Project #U22-0005 (Thiara)

2. Lead Agency Name and Address: Sutter County Development Services Dept.
Planning Division
1130 Civic Center Boulevard
Yuba City, CA 95993

3. Contact Person and Phone Number: Raveena Sroya, Assistant Planner
530-822-7400

4. Project Sponsor Name and Address: Project Applicant
Sarbjit Thiara c/o Milestone Associates
1000 Lincoln Road, Suite H202
Yuba City, CA 95991

Project Owner
Capital Farm and Management Company
5325 Elkhorn Blvd. #7015,
Sacramento, CA 95842

Project Engineer
Julio Tinajero
Milestone Associates
1000 Lincoln Road, Suite H202
Yuba City, CA 95991

5. Project Location & APN: 1777 Tudor Road south of Yuba City, at the northeast corner of the intersection of Tudor Road (State Highway 113) and Burch Road; APNs 25-040-017 and -018.

6. General Plan Designation: AG-80 (Agriculture, 80-acre minimum)

7. Zoning Classification: AG (Agriculture) District

8. Project Description:

The project site (Figures 1-1 to 1-5) consists of two parcels totaling approximately 1.33 acres. The site plan indicates the project site is currently developed with two buildings, one large building in the northwest corner and a smaller building adjacent to and south of the larger building. However, a site visit found that only the foundation of the smaller building remains. The large building still stands but is vacant. A paved yard is adjacent to and east of the building area.

The project applicant seeks to obtain a Use Permit from Sutter County (County) for development of a truck yard to be used for parking only, as shown on Figure 1-6. The project does not propose any other truck-related services beyond parking, such as truck repair, fueling, or supplies.

The truck yard would provide 20 parking spaces, each approximately 70 feet long by 12.5 feet wide. The spaces would be located along the western and eastern boundaries of the project site. Wheelstops would be provided at each truck parking space to prevent trucks from damaging fences or landscaping. The truck yard would be paved with asphalt concrete pavement, consistent with County requirements. A slatted, chain-link fence approximately six feet in height would replace existing fencing along the eastern, southern, and western boundaries of the project site. The northern boundary currently has chain link fencing, which is not proposed for replacement. The existing building on the project site would remain. Although a restroom within the building would be available for drivers, the building would not otherwise be used in conjunction with the proposed truck yard.

The proposed truck yard would be self-serve; it would not have an attendant. Project area operations would involve trucks accessing the site intermittently, 24 hours per day, 7 days per week. The project applicant has indicated that all trucks that would use the proposed facility would be “long haul” trucks, rather than local trucks making local trips. It is expected that truck drivers would travel by automobile to and from the project site before beginning or ending trips. Some of the truck drivers would park their personal automobile at the site, while others would be dropped off. The project applicant proposes to restrict transport refrigerated units (TRUs) to the western side of the truck yard, to reduce noise impacts on residences to the east.

A proposed landscaping plan is shown in Appendix A. Large trees would be planted along the eastern and western boundaries adjacent to the parking spaces; smaller trees would be planted along the State Highway 113 frontage. Trees along the parking spaces would be planted within a five-foot strip; trees along the State Highway 113 frontages would be planted within a larger landscape area. Low-water plants would be used. Trees would be irrigated with a root watering system and a supplemental surface bubbler. Shrubs and groundcover would be irrigated with low-volume, point source drip/bubblers to provide water to the plant root zone. Site irrigation would be controlled by a “smart” controller with weather sensing capabilities. An existing onsite well would provide irrigation water.

A proposed photometric plan is also shown in Appendix A. The project proposes five pole lights with LED fixtures and a maximum height of 25 feet to be installed in the parking areas. Three additional LED lighting fixtures would be mounted, at a maximum height of 20 feet, on the exterior walls of the existing building that would remain standing. Luminaires would be shielded and directed to prevent light spillage onto adjacent properties and road right-of-way.

Access to the project site would be provided from State Highway 113 by a driveway approximately 45 feet in width, which would replace an existing driveway about 35 feet in width providing access from Burch Road. The new driveway, which would be ungated, would be constructed in accordance with the standards of the California Department of Transportation (Caltrans). The project does not propose that trucks use Burch Road, and no access to the project site from Burch Road is provided.

The project applicant has indicated that Surface Transportation Assistance Act (STAA) trucks would be parked at the project site. STAA trucks are typically truck-tractors with sleeper units and a trailer that when combined exceed the 65-foot "California Legal" threshold. Large general truck yards may only be established in the AG District with approval of a use permit and when located immediately adjacent to a State Highway or designated STAA T or S-route. An existing STAA route has been established along State Highway 113.

Water, wastewater, and electrical services would be provided by existing facilities on or adjacent to the project site. Two portable, trailer-mounted portable restrooms will be available on the project site. A minimum of one hand-washing station per restroom will also be provided. Restroom facilities will be maintained daily by the applicant's property manager. Four 55-gallon trash receptacles would be placed on the project site, including adjacent to the truck parking areas, as required by County Zoning Code (1500-05-030 (B)(2)(m)).

9. Surrounding Land Uses and Setting:

East of the project site is one existing single-family residence with an outbuilding. Orchards are to the north and west. South of the project site is vacant land formerly planted in orchard. A single-family residence is to the southwest, across State Highway 113.

10. Other Public Agencies Whose Approval is Required: None

11. Have California Native American tribes affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?

No requests for consultation have been received by the County.

B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

	Aesthetics		Agriculture/Forestry Resources		Air Quality
	Biological Resources		Cultural Resources		Energy
	Geology/Soils		Greenhouse Gas Emissions		Hazards/Hazardous Materials
	Hydrology/Water Quality		Land Use		Mineral Resources
	Noise		Population/Housing		Public Services

Recreation	Transportation	Tribal Cultural Resources
Utilities/Service Systems	Wildfire	Mandatory Findings of Significance

C. LEAD AGENCY DETERMINATION

On the basis of this initial evaluation:

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

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

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

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

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier 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.

Applicant Mitigation Agreement:

CEQA allows a project proponent to make revisions to a project, and/or to agree and comply with, mitigation measures that reduce the project impacts such that the project will not have a significant effect on the environment. CEQA Guidelines Section 15064.

As the applicant/representative for this proposed project, I hereby agree to implement the proposed mitigation measures and mitigation monitoring program identified within this document.

Signature of Applicant/Representative — Date: 09/21/2023

Neal Hay

Neal Hay, Director of Development Services
Environmental Control Officer

3/21/2023
Date

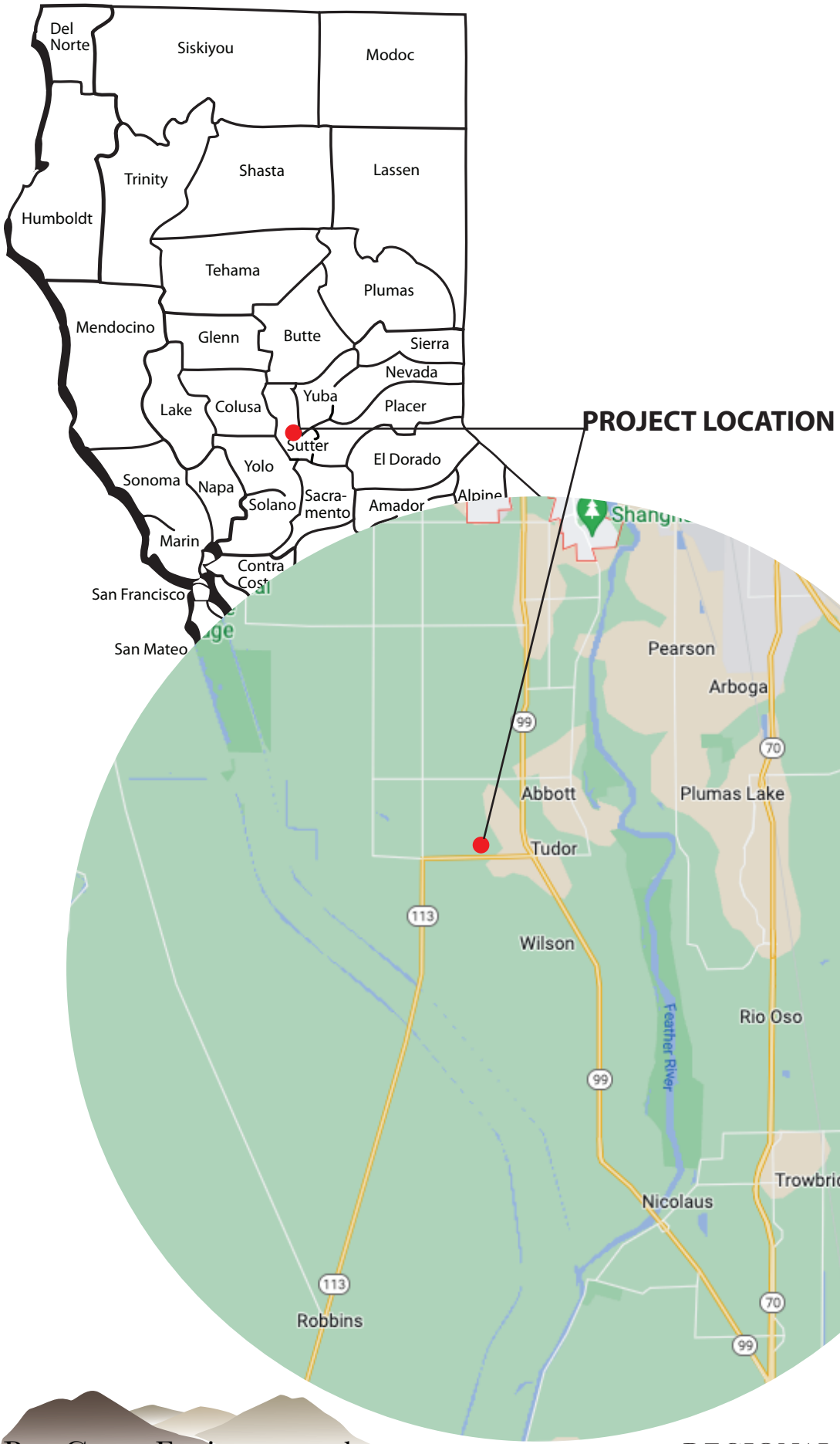
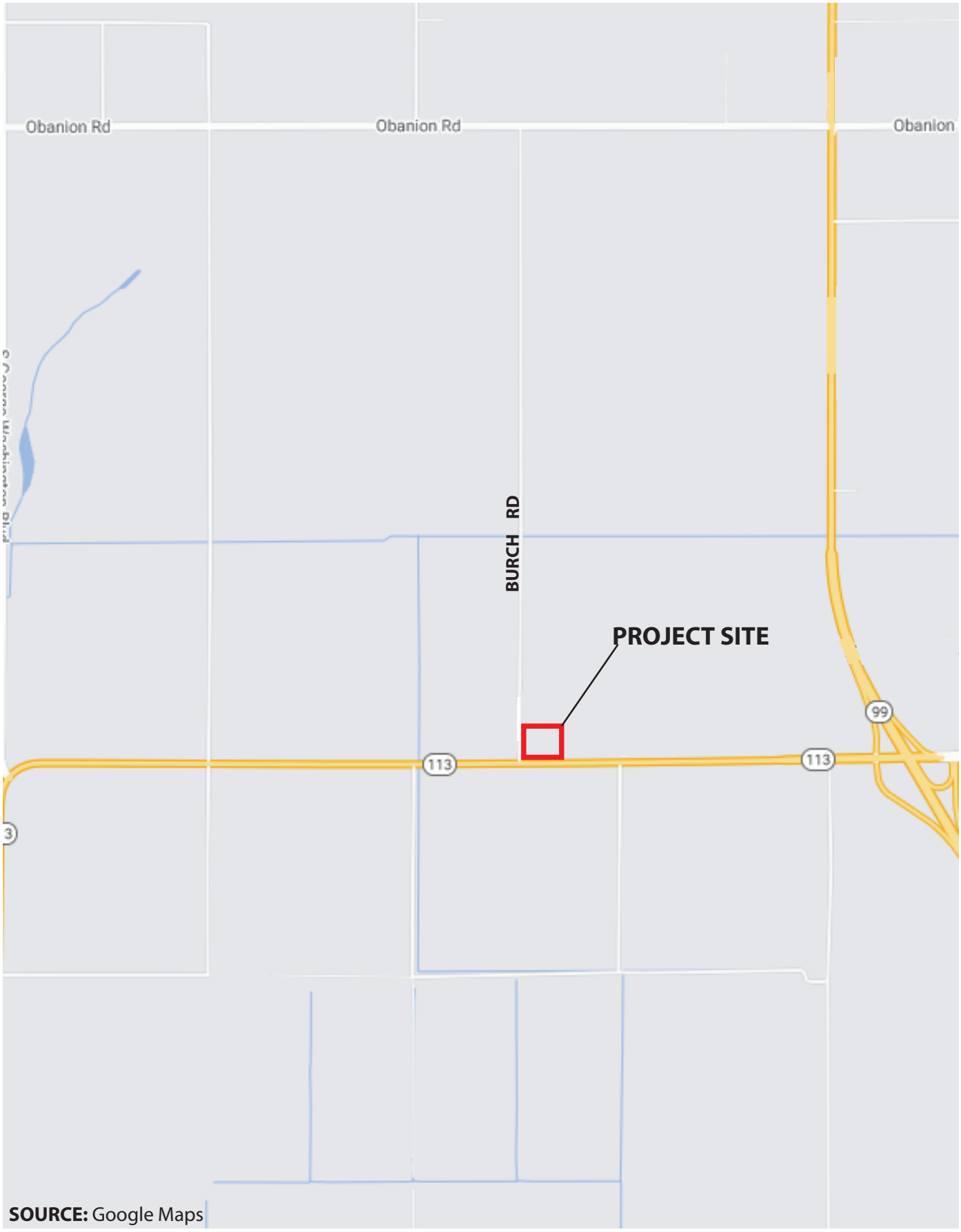


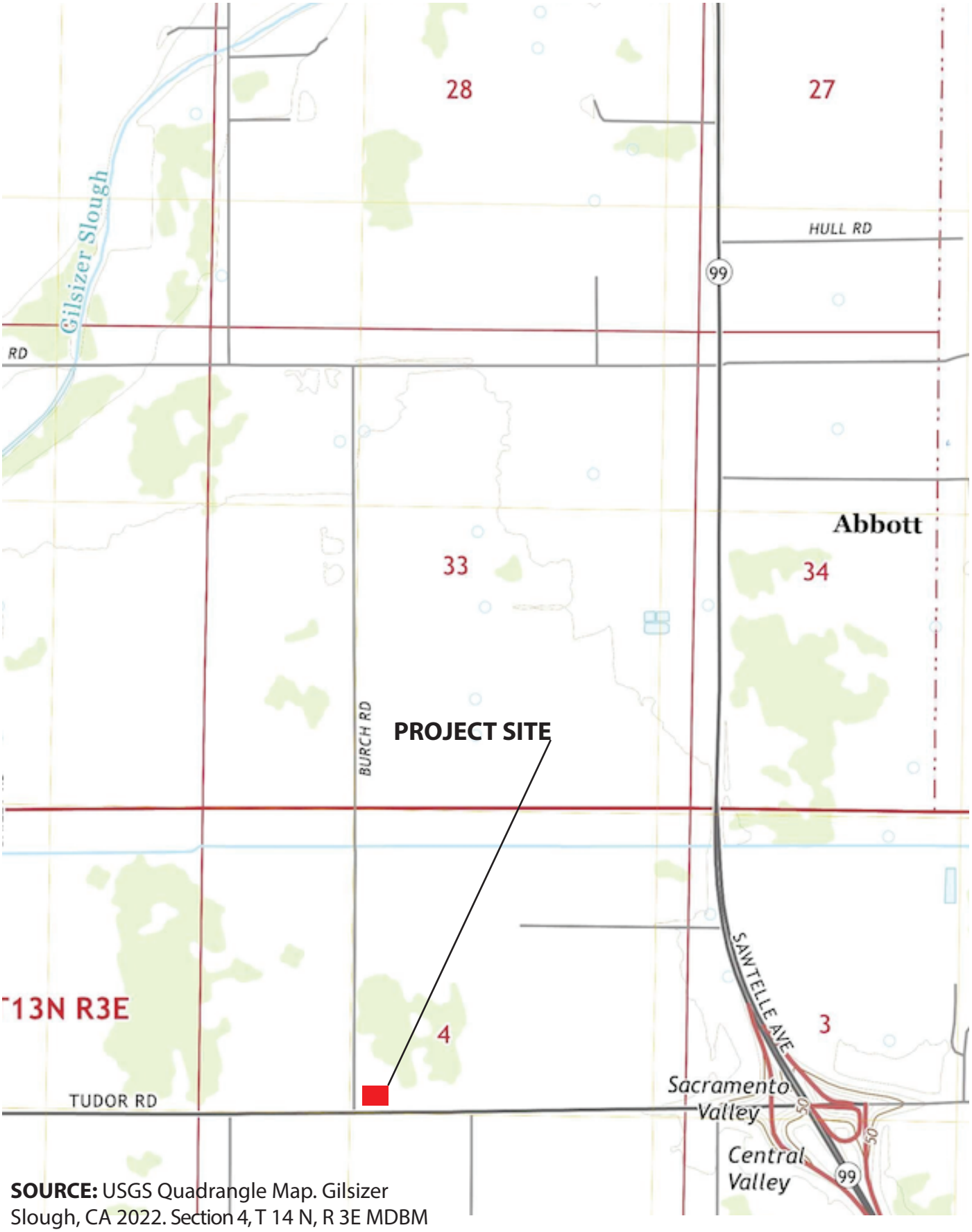
Figure 1-1
REGIONAL LOCATION MAP



SOURCE: Google Maps

BaseCamp Environmental

Figure 1-2
STREET MAP



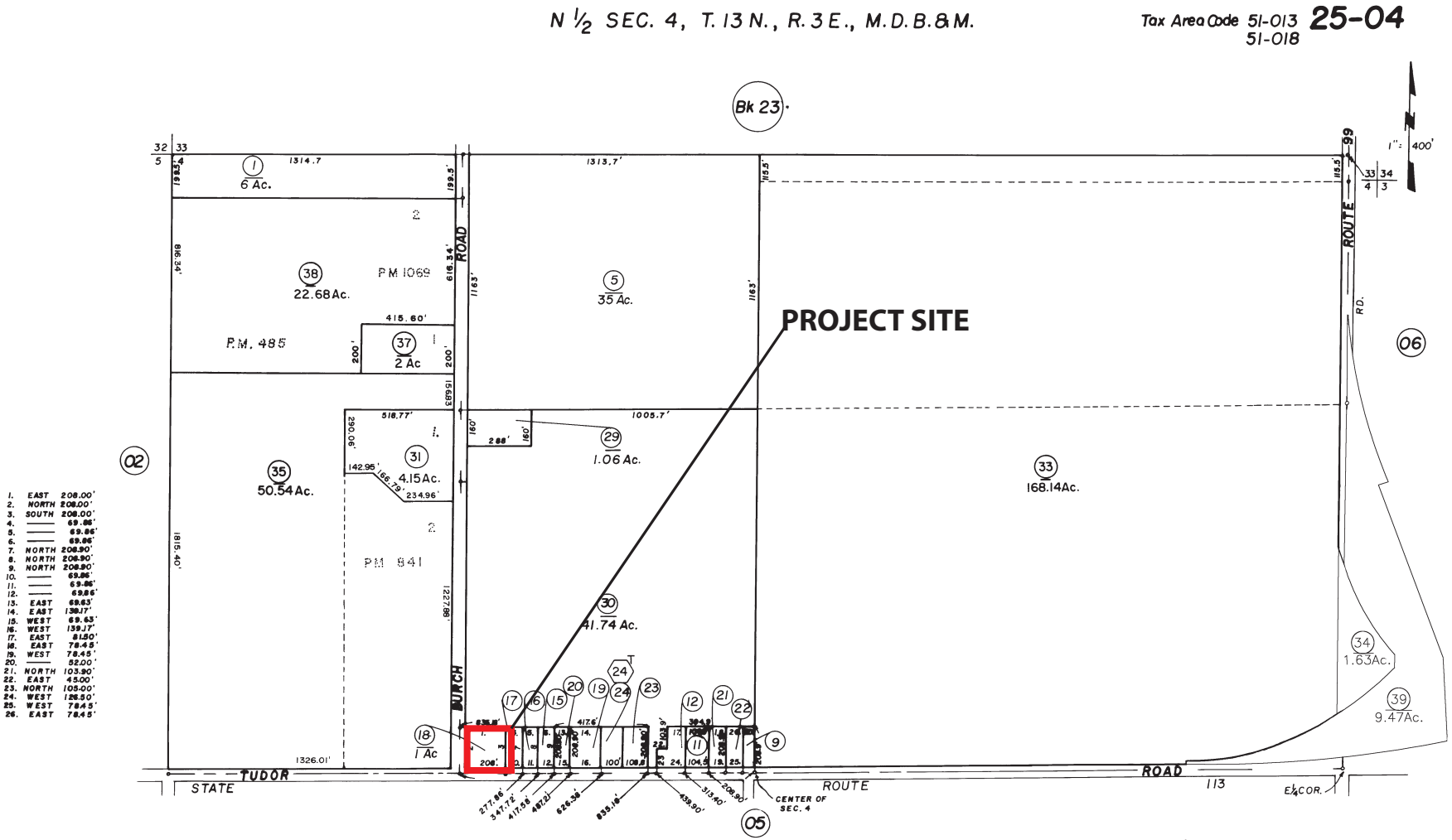
SOURCE: USGS Quadrangle Map. Gilsizer Slough, CA 2022. Section 4, T 14 N, R 3E MDBM

Figure 1-3
USGS MAP

SOURCE: Google Earth

BaseCamp Environmental

Figure 1-4
AERIAL PHOTO



Assessor's Map Bk 25 - Pg. 04
County of Sutter, Calif.
2017-1

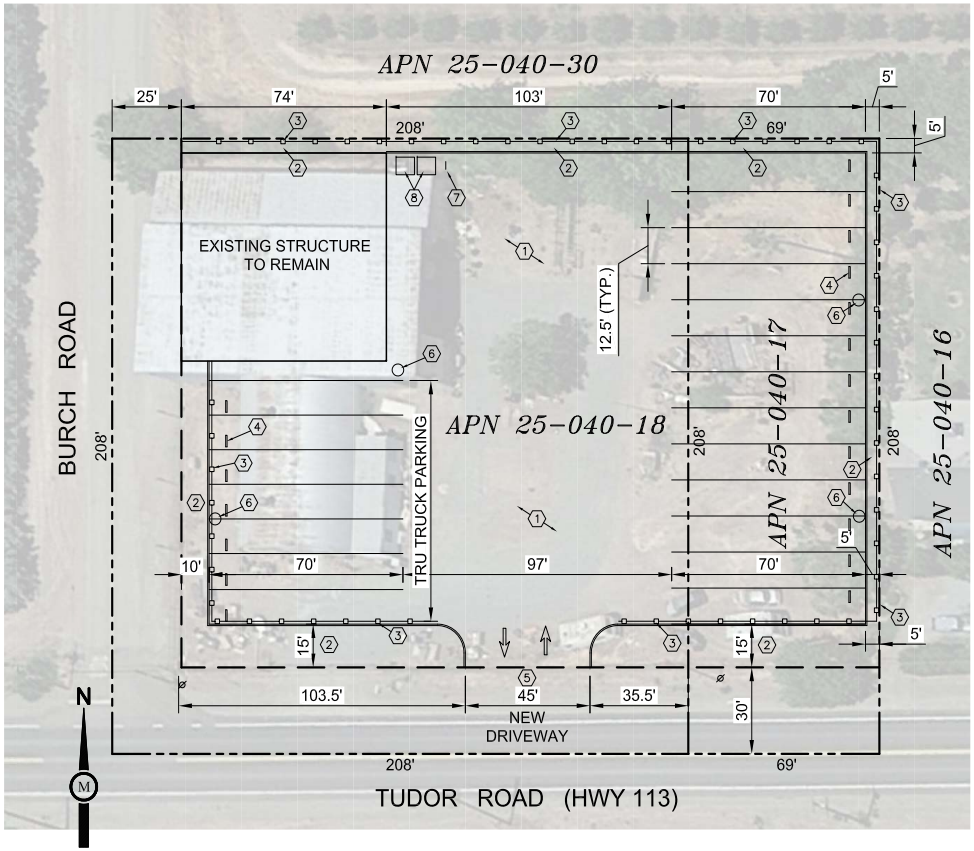
ASSESSOR PARCELS SHOWN ON THIS PAGE DO NOT NECESSARILY CONSTITUTE LEGAL LOTS. CHECK WITH THE COUNTY SURVEYOR OR PLANNING DIVISION TO VERIFY.

NOTE - Assessor's Parcel Number Shown in Circles

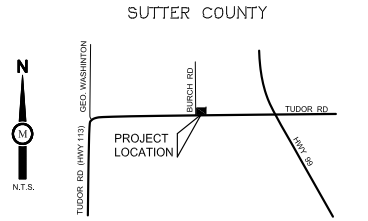
Figure 1-5
ASSESSOR PARCEL MAP

PROPOSED TRUCK YARD

1777 TUDOR ROAD (HWY 113)
YUBA CITY, CA 95993
A.P.N. 25-040-18 & 25-040-17



SITE PLAN
1" = 20'



VICINITY MAP
NOT TO SCALE

CONSTRUCTION NOTES

1. NEW ASPHALT CONCRETE PAVEMENT
2. NEW LANDSCAPE AREA. ALL LANDSCAPE AREAS SHALL INCLUDE SIX-INCH CONCRETE CURBING TO SEPARATE LANDSCAPING FROM REQUIRED PARKING AND DRIVEWAYS.
3. NEW 6 FT. HIGH CHAIN-LINK FENCE WITH PRIVACY SLATS
4. NEW WHEELSTOP TO PREVENT TRUCK FROM HITTING FENCE OR LANDSCAPING
5. NEW DRIVEWAY PER CALTRANS STDS.
6. NEW 55 GALLON TRASH WASTE RECEPTACLE (TYPICAL OF 4)
7. NEW BICYCLE RACK (2 SPACES PROVIDED)
8. NEW PORTABLE TRAILER MOUNTED RESTROOM FACILITIES (2 RESTROOMS PROVIDED)

PROPERTY DESCRIPTION

REAL PROPERTY IN THE COUNTY OF SUTTER, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEING A PORTION OF NORTHWEST QUARTER OF SECTION 4, T. 13 N., R. 3 E., M.D.B.&M.

SITE UTILITIES

SEWAGE DISPOSAL:	PRIVATE ONSITE
WATER SUPPLY:	PRIVATE ONSITE
DRAINAGE:	SUTTER COUNTY

APPLICANT

SARB THIARA
C/O HARMINDER SINGH
(530) 682-2484

LOT DATA:

A.P.N.:	25-040-018 & 25-040-017
TOTAL ACREAGE:	±57,935 SF (1.33 AC)
EXISTING PARCELS:	2
PROPOSED PARCELS:	2
EXISTING ZONE:	AG - AGRICULTURE
PROPOSED ZONE:	AG - AGRICULTURE
EXISTING USE:	REPAIR SHOP / STORAGE
PROPOSED USE:	TRUCK YARD (PARKING)

PARKING DATA:

TRUCK PARKING SPACE (12.5'x70')	20 SPACES

SHEET INDEX

Milestone Associates Imagineering, Inc.
1000 Lincoln Road, Suite H202, Yuba City, CA 95991
(530) 755-4700

PROPOSED TRUCK YARD
1777 TUDOR ROAD (HWY 113) YUBA CITY, CA

SITE PLAN / PROJECT DATA 1

2-24-23

Environmental Checklist

I. AESTHETICS

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

Responses:

a) **No impact.** This project would not have a substantial adverse effect on a scenic vista. The Sutter County General Plan does not identify any scenic vista on the subject property, and there are no scenic vistas proximate to the project site. The General Plan Technical Background Report identifies geographic features such as the Sutter Buttes, Feather River, Sacramento River, and Bear River as scenic resources within the County. This project is not located within the Sutter Buttes Overlay Zone and is not located in the immediate vicinity of the Bear River, Feather River, or Sacramento River. As a result, this project would have no impact on scenic vistas.

b) **No impact.** This project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. There are no state scenic highway designations in Sutter County. Also, the project site contains no scenic resources, has been developed, and contains no designated historic buildings. Therefore, no impact is anticipated.

c) **Less than significant impact.** The proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. The project site is in outdoor industrial and does not have any substantial visual character. The surrounding area is largely rural and agricultural. While truck parking is not a typical land use associated with the area, it is consistent with prevalent agricultural activities that use trucks such as agricultural product processing plants.

The County's Zoning Code contains specific requirements for screening for large general truck yards proposed within the AG District (Zoning Code Section 1500-05-030 E. 3. o.). These requirements specify that facilities shall be screened from view through concrete masonry unit walls or chain-link fencing with privacy slats, having a minimum privacy rating

of 90 percent or greater, and landscaping. These requirements also specify that facilities shall comply with the applicable requirements of Zoning Code Table 1500-07-3 (Commercial and Employment Design Checklist), which includes requirements for landscaping and screening. The screening to be provided for the proposed project would include six-foot-tall fencing with slats. This fencing would reduce the visibility of the parking area from Tudor Road, the main public view area.

The proposed landscaping would also reduce the visibility of the parking area, as well as enhance the visual quality of the site entrance. The County's Commercial and Employment Districts contain specific design requirements for landscaping, which are designed in part to improve the appearance of a site and create a cohesive look (Zoning Code Section 1500-07-050 E). These requirements would apply to large general truck yards such as this project and are a supplemental requirement of the Use Permit. The applicant has submitted a landscaping plan (see Appendix A), which demonstrates compliance with Zoning Code requirements for landscaping. Landscaping is required to be installed in accordance with the landscape plan prior to use of the site for truck/trailer and vehicle parking and shall be continuously irrigated and maintained; these requirements will be included as proposed project conditions.

The existing visual characteristics of the site consist of a vacant structure, a remnant foundation of another structure, and grasses and weeds. As this project complies with the design requirements of the Zoning Code Design Checklist and is consistent with the General Plan designation of the property, this project is not anticipated to substantially degrade the existing visual character or quality of the site or its surroundings; in fact, the project would likely improve the visual character of the site with the removal of weeds and the addition of view-obstructing fencing and landscaping. A less-than-significant impact is anticipated, and the overall project impacts are considered beneficial.

d) **Less than significant impact.** Existing lighting is mainly limited to exterior lighting of nearby residences. The project would add new lighting to a site that currently has none. This has potential cause indirect illumination of nearby residences, including the one adjacent to and east of the project site, at a level that could disturb the sleep of residents.

The County's Zoning Code contains specific requirements for exterior lighting for large general truck yards proposed within the AG District (Zoning Code Section 1500-05-030 E. 3. d.). These requirements specify that light pole and fixture height shall not exceed 25 feet and that truck parking areas shall incorporate motion activated lighting that shall not spill onto adjoining properties. These requirements also specify that exterior lighting shall be provided consistent with Zoning Code Table 1500-07-3 (Commercial and Employment Design Checklist). These requirements specify that luminaires be oriented and shielded to direct the light downward onto the property and not spill onto adjacent properties or road rights-of-way. The requirements also specify illumination requirements for parking lots and driveways and require that a point-by-point exterior lighting (photometric) plan be submitted to demonstrate compliance with the lighting standards.

Pole-mounted LED light fixtures are proposed around the perimeter of the new parking area, as illustrated in the photometric plan (see Appendix A). All new lighting would meet County lighting requirements, including shielding and pole heights. Outdoor lighting is required to be installed in accordance with the lighting plan prior to use of the site for truck/trailer and vehicle parking, which would be included as a proposed project condition. The photometric plan demonstrates compliance with County lighting requirements, and it

shows that project lighting would only minimally increase illumination levels at the adjacent residence to the east. As a result, it is not anticipated this project would create a new source of substantial light or glare in this area. A less-than-significant impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

(County of Sutter, Zoning Code. 2022)

II. AGRICULTURE AND FORESTRY RESOURCES

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

Responses:

a) **No impact**. As noted in the CEQA Guidelines Appendix G Environmental Checklist, which is the source of this checklist, Farmland is defined as 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. According to the 2018 Sutter County Important Farmland map, prepared pursuant to the Farmland Mapping and Monitoring Program, the entire project

site is designated as Other Land. Since the project site does not have a Farmland designation, the project would not convert Farmland to a non-agricultural use. In fact, the project site is already developed for industrial use. The project would have no impact on Farmland conversion.

b) **Less than significant impact**. This project would not conflict with existing zoning for agricultural uses or a Williamson Act contract. The project site is zoned AG, General Agriculture. However, the proposed project is an allowable use on AG-zoned land with a Use Permit. The project site is not encumbered by a Williamson Act contract. A less-than-significant impact is anticipated.

c) **No impact.** This project does not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)), because the project site and surrounding area does not contain forest land. The project site is not zoned for forest land or timberland nor is it adjacent to land that is zoned for forest land or timberland. This project is in the Sacramento Valley, a non-forested region. No impact is anticipated.

d) **No Impact.** This project would not result in the loss of forest land or conversion of forest land to a non-forest use because of its location within Sutter County. Sutter County is located on the valley floor of California's Central Valley, and, as such, does not contain forest land. No impact is anticipated.

e) **No impact.** This project would not involve other changes to the existing environment which could result in the conversion of farmland to a non-agricultural use or conversion of forest land to a non-forest use. This project proposes a large general truck yard on an existing developed parcel. Agricultural uses in the vicinity would continue, and conflicts between the proposed project and nearby agricultural uses are not anticipated. This project does not propose infrastructure or other features that would present an opportunity for the conversion of farmland in the vicinity to a non-agricultural use. As noted in d), there is no forest land in Sutter County, so there would be no opportunity to convert forest land to non-forest use. Therefore, the project would have no impact related to indirect conversion of Farmland or forest land.

(California Dept. of Conservation, Farmland Mapping and Monitoring Program. 2018)

(County of Sutter, General Plan Draft Environmental Impact Report. 2008)

(County of Sutter, Zoning Code. 2022)

III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			✓	

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			✓	
c) Expose sensitive receptors to substantial pollutant concentrations?			✓	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			✓	

Responses:

a) **Less than significant with mitigation incorporated.** This project would not conflict with or obstruct implementation of an applicable air quality plan. Both the federal and State governments have established ambient air quality standards, based on their respective Clean Air Acts, for various air pollutants identified as “criteria” air pollutants. The federal Clean Air Act identifies six criteria pollutants: reactive organic gases (ROG), nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide, lead, and particulate matter less than 10 micrometers in diameter (PM10), a subset of which is particulate matter less than 2.5 micrometers in diameter (PM2.5). The California Clean Air Act identifies these six federal criteria pollutants, along with four others.

Under both Clean Air Acts, air basins are classified as being in “attainment” or “nonattainment” of these ambient air quality standards, or they are “unclassified”. Any air district that has been designated as a nonattainment area relative to federal and/or State ambient air quality standards for ozone, carbon monoxide (CO), sulfur dioxide or nitrogen dioxide is required to prepare and submit a plan for attaining and maintaining the standards for which it is in nonattainment.

The project site is within the boundaries of the Feather River Air Quality Management District (FRAQMD), which covers Sutter and Yuba Counties. The FRAQMD is either in attainment of or unclassified for all federal and State ambient air quality except for federal standards for ozone and particulate matter less than 10 micrometers in diameter (PM10). Portions of Sutter County are also in nonattainment of State standards for ozone. The FRAQMD, in cooperation with other air districts in the northern Sacramento Valley, has prepared the Northern Sacramento Valley Planning Area Air Quality Attainment Plan for the attainment of State ozone standards. Plans have also been prepared for the attainment of federal ozone and PM10 standards.

To determine air quality impacts resulting from the proposed project, the applicant hired Environmental Permitting Specialists to prepare an air quality analysis. A copy of this analysis is included as Appendix B to this Initial Study, and the analysis is being reviewed by FRAQMD. The air quality analysis describes existing air quality in the project area and the surrounding region, details the associated regulatory setting, and presents an analysis of potential impacts of air pollutant emissions from project construction and operation on air quality. The significance of the impacts was determined using emission thresholds established by FRAQMD for ROG and NOx, the main ingredients for ozone, as well as for PM10. Table 1 below shows the FRAQMD significance thresholds. These thresholds have been established only for the criteria pollutants for which FRAQMD is in nonattainment status.

TABLE 1
FRAQMD SIGNIFICANCE THRESHOLDS AND PROJECT EMISSIONS

	ROG	NO_x	PM_{10}
Significance Thresholds (pounds/day)[1]	**25**[2]	**25**[2]	**80**
Construction Emissions (pounds/day)	1.59	12.02	5.63
Exceeds threshold?	*No*	*No*	*No*
Operational Emissions (pounds/day)	0.01	1.18	0.02
Exceeds threshold?	*No*	*No*	*No*

[1] Applies to both construction and operational emissions.
[2] Construction emissions not to exceed 4.5 tons per year.

Short-Term Construction Impacts

Construction activities for the proposed project would emit criteria air pollutants from a variety of activities, including operation of heavy equipment and use of worker vehicles, vendor trucks, and hauling trucks. Emissions of ozone precursors (ROG and NOx) are primarily generated by mobile sources and largely vary as a function of vehicle trips per day and the type, quantity, intensity, and frequency of heavy-duty, off-road equipment used. Typically, a large portion of construction-related ROG emissions results from the application of asphalt on to parking areas, and the application of architectural coatings. Construction-related fugitive dust emissions of PM10 would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather.

As part of the air quality analysis for the project, construction emissions were estimated using the California Emissions Estimate Model (CalEEMod) computer model Version 2020.4.0. Estimated construction emissions for the proposed project are reported and compared to the FRAQMD thresholds of significance in Table 1 above. As shown in Table 1, emissions of NOx, ROG, and PM10 generated during construction of the proposed project would not exceed FRAQMD thresholds of significance. Therefore, project construction activities would not interfere with the implementation of air quality attainment plans for ozone or PM10. Project construction impacts on air quality would be less than significant.

Long-Term Operational Impacts

The proposed project would result in long-term operational emissions, as it would generate an increase in the number of trucks that would travel to and from the site on a regular basis. The air quality analysis used the EMFAC 2021 computer model to estimate vehicle exhaust emissions and data from the California Air Resources Board (CARB) to estimate fugitive road dust emissions. The results of this analysis are summarized and compared to the FRAQMD operational thresholds of significance in Table 1 above. As shown in Table 1, total project operational emissions would not exceed the FRAQMD thresholds of significance for emissions of ROG, NOx, or PM10. Therefore, project operations would not interfere with the implementation of air quality attainment plans for ozone or PM10.

Since the proposed project has an operational phase, the project is characterized by FRAQMD as a Type 1 project. According to the FRAQMD indirect source review

guidelines, if operational emissions of a Type 1 project do not exceed the thresholds of significance, it is recommended that the project proponent implement the Standard Mitigation Measures. These include the implementation of a Fugitive Dust Control Plan to control dust emissions during construction activities. The project would implement the following mitigation measure, which requires the application of the FRAQMD Standard Mitigation Measures.

> **Mitigation Measure No. 1 (Air Quality):** IMPLEMENT FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT (FRAQMD) STANDARD MITIGATION MEASURES. The project applicant shall implement the following FRAQMD-recommended Standard Mitigation Measures for projects that do not exceed construction or operational thresholds of significance.
>
> - Implement the Fugitive Dust Control Plan prior to any on-site grading, landscaping, or construction activities. The applicant shall submit the fugitive dust control plan to the FRAQMD for review and approval. A copy of the approved plan shall be submitted to the Development Services Department.
>
> - Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions limitations (40 percent opacity or Ringlemann 2.0).
>
> - The contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation.
>
> - Limit idling time to 5 minutes – saves fuel and reduces emissions in accordance with 13 California Code of Regulations (CCR) Chapter 10 Section 2485 and 13 CCR Chapter 9 Article 4.8 Section 2449.
>
> - Utilize existing power sources or clean fuel generators rather than temporary power generators.
>
> - Develop traffic plans to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.
>
> - Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require California Air Resources Board (CARB) Portable Equipment Registration with the State or a local district permit. The owner/operator shall be responsible for arranging appropriate consultation with CARB or FRAQMD to determine registration and permitting requirements prior to equipment operation at the site.

Because this project would not generate emissions above FRAQMD's thresholds of significance for construction and operational activities and would implement the relevant mitigation described above, a less-than-significant impact on air quality is anticipated.

b) **Less than significant impact.** This project would not result in a net increase of any criteria pollutant. The focus of the analysis is related to the ground-level ozone and PM10, for which FRAQMD is in non-attainment. PM2.5, CO, and SO2 were not a component of the analysis, since FRAQMD does not have numerical thresholds of significance for these pollutants, and in any case FRAQMD is in attainment of standards for these pollutants. This project's cumulative impacts regarding air quality are discussed in the Mandatory Findings of Significance Section of this checklist.

Neither construction nor operation of the proposed project would generate emissions that would exceed the FRAQMD thresholds of significance, and the project would implement the FRAQMD recommended Standard Mitigation Measures. Therefore, the project would not result in a significant net increase of criteria air pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. A less-than-significant impact is anticipated.

c) **Less than significant impact.** This project would not expose sensitive receptors to substantial pollutant concentrations. Potential sensitive receptors include the adjacent residences east of the project site. As discussed in a) above, project construction and operational emissions would not exceed FRAQMD significance thresholds. As such, the nearby sensitive receptors would not be exposed to substantial amounts of pollutant emissions, especially when Mitigation Measure No. 1 is implemented.

The project would generate emissions of diesel particulate matter (DPM), which is considered a toxic air contaminant that could lead to increased cancer risk with prolonged exposure. DPM emissions would be generated by the operation of off-road construction equipment (e.g., excavators, loaders, cranes, graders) during construction and on-road diesel heavy duty vehicles and TRUs.

The Environmental Permitting Specialists analysis for the project included a screening level risk analysis that evaluated the potential health risks to nearby residences of the estimated DPM operational emissions. Construction DPM emissions were not considered, as construction work is estimated to take only 30 days, and measurable health risks from DPM emissions occur only with prolonged exposure. The emission rate of exhaust PM10 estimated by CalEEMod, with a few refinements, is considered a surrogate for DPM. Annual DPM operational emissions generated by the project were estimated at 0.15 pounds per year.

Toxic air contaminant emissions are considered significant if the emissions lead to a cancer risk of 10 cancers per million people and the Non-Cancer Hazard Index is 1.0. The analysis found that for the closest distance to the project site (0 to 100 meters), the cancer risk would be approximately 0.079 per million – well below the significance threshold for cancer risk. The Non-Cancer Hazard Index at 0 to 100 meters would be approximately 0.0001, also well below the significance threshold.

In summary, construction and operational emissions from the proposed project would not generate substantial criteria pollutant emissions, nor would it generate DPM emissions that would pose a substantial health risk to sensitive receptors – the nearby residences. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations and the impact is considered less than significant.

d) **Less than significant impact.** This project would not result in other emissions, such as those leading to odors) adversely affecting a substantial number of people. FRAQMD has identified various types of facilities that are known sources of odors, including wastewater treatment plants, sanitary landfills, painting/coating operations, food processing facilities, and green waste and recycling operations. The proposed project would not include operation of any of the types of odor-generating facilities. Therefore, the project would not be anticipated to generate odors that would affect a substantial number of people, and the impact would be less than significant.

(Environmental Permitting Specialists, Draft Analysis of Impacts to Air Quality and Greenhouse Gas from Proposed Truck Yard, Yuba City, California. 2022)

(Feather River Air Quality Management District, Indirect Source Review Guidelines. 2010)

(County of Sutter, General Plan 2030. 2011)

IV. BIOLOGICAL RESOURCES

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

Responses:

a) **Less than significant impact.** This project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by

the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). The Sutter County General Plan Environmental Impact Report (EIR) assessed the presence of special-status species in Sutter County through a search of the California Natural Diversity Database. The results indicate no candidate, sensitive, or special-status species identified as potentially occurring onsite or in the immediate area. The nearest species identified are located adjacent to the Feather River approximately one mile east of the site. In addition, the USFWS Critical Habitat Mapper indicated no critical habitat for any species listed under the federal Endangered Species Act within the project site and vicinity.

The project site has been previously developed. Such sites are generally of limited use to wildlife due to the level of disturbance and typically are devoid of native plant species or habitat. There are no waterways or wetlands on the project site that may provide habitat for listed species. The land uses occurring in the project area are not conducive to wildlife use. Therefore, a less-than-significant impact is anticipated.

b) **No impact.** This project would not 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 CDFW or USFWS. There are no streams or rivers in the immediate project vicinity. No riparian habitat or other sensitive natural community exists onsite or near the property; only orchard land has been identified on nearby lands. Therefore, no impact is anticipated.

c) **No impact.** This project would not 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. As noted, there are no streams or rivers on the project site. As noted, there are no streams or rivers in the immediate vicinity. The project site is developed; as such, there are no waters on the site. The National Wetlands Inventory of the USFWS indicated the presence of a Riverine water along the northern boundary of the project site, which corresponds to a ditch. The project would not affect this ditch. Therefore, no impact is anticipated.

d) **No impact.** This project would not 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 a native wildlife nursery site because the area is predominantly developed. The project is not anticipated to significantly interfere with wildlife movement since the site has no trees other than ornamentals, which are not considered desirable nesting sites for migratory birds. The property is not located near any rivers or streams that would provide fish movement corridors or riparian vegetation for nesting. No impact is anticipated.

e) **No impact.** This project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, because Sutter County has not adopted such policies or ordinances. There are no oak trees located on the property, so no impact is anticipated.

f) **No impact.** The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan because no such plans are applicable to this project site. As a result, no impacts are anticipated.

(County of Sutter, General Plan Draft Environmental Impact Report. 2008)

(County of Sutter, General Plan Technical Background Report. 2008)

(U.S. Fish and Wildlife Service, Critical Habitat Mapper, 2022)

(U.S. Fish and Wildlife Service, National Wetlands Inventory, 2022)

V. CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?		✓		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		✓		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?		✓		

Responses:

a-b) **Less than significant with mitigation incorporated.** The proposed project would not cause a substantial adverse change in the significance of a historical resource or archaeological resource pursuant to California Environmental Quality Act (CEQA) Guidelines §15064.5. In Section 4.6 of the General Plan Technical Background Report, Figure 4.6-1 does not list the property as being a historic site. The site is not listed on the National Register of Historic Places. There are no unique features or historical resources located on the project site. The project site is not located within the vicinity of the Bear River, Sacramento River, or Feather River, where archaeological resources are more likely to occur. There is no evidence on the project site indicating that historical or archaeological resources exist.

The project site has been developed. Since the property has been extensively disturbed to varying depths due to past development, it is unlikely that any intact cultural resources exist. However, it is conceivable that currently unknown cultural resources may be encountered during project construction. A mitigation measure is proposed that sets forth procedures to be followed should any cultural resources be encountered.

> **Mitigation Measure No. 2 (Cultural Resources):** If archaeological resources are discovered on the project site, potential ground disturbing activities within 100 feet of the find shall be halted immediately and the Development Services Department shall be notified. A qualified archaeologist shall examine the find and evaluate its significance. The archaeologist shall recommend measures needed to reduce effects on the cultural resource in a written report to the County. The County shall be responsible for implementing the report recommendations.

c) **Less than significant with mitigation incorporated.** The proposed project is not expected to disturb any human remains, including those interred outside of dedicated cemeteries. The property is not located near a cemetery. The project site is not located

within the vicinity of the Bear River, Sacramento River, or Feather River, where burials are more likely to occur.

California Health and Safety Code §7050.5 states that when human remains are discovered, no further site disturbance can occur until the County Coroner has made the necessary findings as to the origin of the remains and their disposition pursuant to Public Resources Code Section 5097.98. If the remains are recognized to be those of a Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours.

Public Resources Code §5097.98 states that whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, it shall immediately notify the most likely descendent from the deceased Native American. The descendants may inspect the site and recommend to the property owner a means for treating or disposing the human remains. If the Commission cannot identify a descendent, or the descendent identified fails to make a recommendation, or the landowner rejects the recommendation of the descendent, the landowner shall rebury the human remains on the property in a location not subject to further disturbance.

To mitigate potential impacts, a mitigation measure is proposed to prevent disturbance of human remains should they be encountered.

> **Mitigation Measure No. 3 (Cultural Resources):** California Health and Safety Code §7050.5 states that when human remains are discovered, no further site disturbance can occur until the County Coroner has made the necessary findings as to the origin of the remains and their disposition pursuant to Public Resources Code §5097.98. If the remains are recognized to be those of a Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC shall initiate the process of contacting the most likely descendant and the disposition of the remains pursuant to Public Resources Code §5097.98.

(County of Sutter, General Plan Technical Background Report. 2008)

(National Park Service, National Register of Historic Places. 2021)

VI. ENERGY

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

Responses:

a-b) **Less than significant impact.** The proposed project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption

of energy resources during project construction or operation or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This project proposes a truck yard that would provide truck and automobile parking. No new buildings are proposed.

Overall, the project would not require the creation of a new source of energy generation. Construction of the parking area would require the consumption of diesel and gasoline to power construction equipment and delivery trucks. As stated in the air quality analysis completed for this project, the project would take 30 days to construct. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency, combined with state regulations limiting engine idling times, would further reduce transportation fuel demand during project construction. There are no unusual project characteristics or construction processes that would be more energy-intensive than are used for comparable activities, and no equipment would be used that would not conform to current emissions standards and related fuel efficiencies. For these reasons, it is expected that fuel consumption associated with project construction would not be any more inefficient, wasteful, or unnecessary than similar development projects of this nature within Sutter County.

This project does not require, and would not utilize, a substantial amount of energy due to the limited use of the site as a parking area for trucks, trailers, and automobiles. Proposed outdoor lighting at the project site would be required to comply with the energy requirements of the State Building Codes, including the California Energy Code (Part 6 of Title 24) related to lighting design and installation, luminaire, and lighting controls. The energy efficiency standards of the State of California are some of the most stringent in the nation. As a result, the project would not result in a wasteful, inefficient, or unnecessary consumption of energy resources, and a less-than-significant impact is anticipated.

VII. GEOLOGY AND SOILS

Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				✓
ii) Strong seismic ground shaking?			✓	
iii) Seismic-related ground failure, including liquefaction?			✓	
iv) Landslides?				✓
b) Result in substantial soil erosion or the loss of topsoil?		✓		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and			✓	

potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			✓	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				✓
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			✓	

Responses:

a-i) **No impact.** This project would not directly or indirectly cause potential substantial adverse effects from rupture of a known earthquake fault. The project site is not located in an Alquist-Priolo Earthquake Fault Zone, and the project would involve minor grading activities that would not exacerbate existing seismic hazards in the region. No impact is anticipated.

a-ii,-iii) **Less than significant impact.** This project would not directly or indirectly cause potential substantial adverse effects from strong seismic ground shaking or seismic-related ground failure, including liquefaction. Figure 5.1-1 in the General Plan Technical Background Report does not identify any active earthquake faults, as defined by the California Mining and Geology Board, in Sutter County. The faults identified in Sutter County include Quaternary faults in the northern section of the County within the Sutter Buttes and a pre-Quaternary fault in the southeastern corner of the County just east of where Highway 70 enters the County. Although both faults have the potential for seismic activity, they are listed as non-active faults. Therefore, the potential for earthquakes or liquefaction is unlikely, and a less-than-significant impact is anticipated.

a-iv) **No impact.** This project would not directly or indirectly cause potential substantial adverse effects from landslides. The project site is relatively level with no significant slopes. The project is not located in the Sutter Buttes, the only area identified by the General Plan Technical Background Report as having landslide potential. Therefore, the potential for landslides is unlikely, and no impact is anticipated.

b) **Less than significant with mitigation incorporated.** This project would not result in substantial soil erosion or the loss of topsoil. According to the U.S. Department of Agriculture (USDA) Soil Conservation Service Soil Survey of the County, on-site soils consist solely of Marcum-Gridley clay loams, 0 to 1 percent slopes. This soil is unlikely to be susceptible to erosion, because runoff is very slow and the hazard of water erosion is slight. The General Plan Technical Background Report indicates that soils with a 0 to 9 percent slope have only slight erodibility.

However, site grading has the potential to result in soil erosion due to loosened soils. Any grading or site improvements shall be done per an approved plan and in accordance with Sutter County Development Standards. The plan shall be reviewed and approved by the Director of Development Services prior to the start of construction.

Since the project size is more than one acre, the applicant is required to prepare a Storm Water Pollution Prevention Plan (SWPPP) and obtain a National Pollution Discharge

Elimination System (NPDES) General Construction Permit through the Regional Water Quality Control Board (RWQCB) to ensure that soil is not released in storm water from the project site. To ensure that a less-than-significant impact occurs, the following mitigation measure is included.

> **Mitigation Measure No. 4 (Geology and Soils):** STORM WATER QUALITY PROTECTION – DURING CONSTRUCTION.
>
> SWPPP - Prior to the start of construction, the applicant shall prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) to be executed through all phases of grading and project construction. The SWPPP shall incorporate Best Management Practices (BMPs) to ensure that potential water quality impacts during construction phases are minimized. These measures shall be consistent with the County's Improvement Standards and Land Grading and Erosion Control Ordinance and the requirements of the National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. The SWPPP shall be submitted to the County for review and to the Central Valley Regional Water Quality Control Board (RWQCB) as required by the NPDES General Permit in effect during construction. During construction, the applicant shall implement actions and procedures established to reduce the pollutant loadings in storm drain systems. The project applicant shall implement BMPs in accordance with the SWPPP and the County's Improvement Standards. The project applicant(s) shall submit a state storm water permit Waste Discharger Identification number for each construction project.
>
> NPDES GENERAL CONSTRUCTION PERMIT – Since the project size is more than one acre, prior to construction the applicant shall file a Notice of Intent with the Central Valley RWQCB to obtain coverage under the California State Water Resources - General Construction Activity Storm Water Permit. Permits are issued by the State Water Resources Control Board, which can provide all information necessary to complete and file the necessary documents. Applicant shall comply with the terms of the General Construction Permit, the County's ordinances, and the NPDES Waste Discharge Requirements for the Sutter County Phase II NPDES Permit.

c) **Less than significant impact.** This project is not located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. As stated above in b), soils at the site have a 0 to 1 percent slope with only a slight hazard of water erosion. The General Plan Technical Background Report indicates that soils with a 0 to 9 percent slope have slight erodibility. Also, as stated in a-iv), the project site has no landslide potential. A less-than-significant impact is anticipated.

d) **Less than significant impact.** According to the USDA Soil Conservation Service Soil Survey of the County, Marcum-Gridley clay loams have a high shrink-swell potential. All future construction is required to comply with the adopted California Building Code, specifically Chapter 18 for soils conditions and foundation systems, to address potential expansive soils that may require special foundation design, a geotechnical survey, and engineering for foundation design. The Building Inspection Division would implement

these standards as part of any future building permit process. A less-than-significant impact is anticipated.

e) **No impact.** The project proposes to use a restroom within the existing onsite building. All onsite wastewater disposal systems in Sutter County are permitted in accordance with Sutter County Code Chapter 700 and must comply with all provisions specified therein. These provisions include repairing or replacing any failing onsite systems should such failures occur. No impact is anticipated.

f) **Less than significant impact.** The proposed project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. There are no known unique paleontological resources or unique geologic features located in the vicinity of the project. Given past development, it is unlikely the project site has any intact paleontological resources. A less-than-significant impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

(USDA Soil Conservation Service, Sutter County Soil Survey. 1988)

(USDA Natural Resources Conservation Service, Custom Soil Survey, Sutter County. 2022)

VIII. GREENHOUSE GAS EMISSIONS

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

Responses:

a) **Less than significant impact.** This project would not generate additional greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment. The Sutter County Climate Action Plan (CAP) was prepared and adopted in 2010 as part of the General Plan to ensure compliance with AB 32, also known as the Global Warming Solutions Act. Sutter County's CAP includes a GHG inventory, an emission reduction target, and reduction measures to reach the target. The CAP also includes screening tables used to assign points for GHG mitigation measures. Projects that achieve 100 points or more do not need to quantify GHG emissions and are assumed to have a less than significant impact. Sutter County's screening tables apply to all project sizes. Small projects with little or no proposed development and minor levels of GHG emissions typically cannot achieve the 100-point threshold.

Since the adoption of the CAP, further analysis to determine if a project can be too small to provide the level of GHG emissions reductions expected from the screening tables or alternative emissions analysis methods has been performed. In June 2016, Sutter County

adopted new GHG Pre-Screening Measures to be applied to new projects. Sutter County has concluded that projects generating less than 3,000 metric tons of carbon dioxide equivalent (CO_2e) would not require further GHG emissions analysis and are assumed to have a less-than-significant impact. The Environmental Permitting Specialists air quality analysis for the project (see Appendix B) indicates that GHG emissions from project vehicle traffic – the only source for such emissions – would be approximately 179 metric tons CO_2e per year. This is well below the threshold of 3,000 metric tons CO_2e per year. Based on this evaluation, the project would not generate GHG emissions that would have a significant impact on the environment. A less-than-significant impact is anticipated.

b) **Less than significant impact**. This project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. As noted, Sutter County has adopted a CAP that screens projects based on a threshold of 3,000 metric tons CO_2e per year. As noted in a) above, this project would not generate emissions that exceed this threshold. Therefore, this project would be consistent with the County CAP. A less-than-significant impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

(County of Sutter, General Plan 2030 Climate Action Plan. 2011)

(County of Sutter, Greenhouse Gas Pre-Screening Measures for Sutter County. June 28, 2016.)

(Environmental Permitting Specialists, Draft Analysis of Impacts to Air Quality and Greenhouse Gas from Proposed Truck Yard, Yuba City, California. 2022)

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			✓	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				✓
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public-use airport, would the project result in a				✓

safety hazard or excessive noise for people residing or working in the project area?				
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			✓	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			✓	

Responses:

a-b) **Less than significant impact.** This project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or the creation of 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. The project is a truck parking area; therefore, it is not expected to use or discharge hazardous materials other than fuel and oil contained within the vehicles themselves. The only hazardous materials concerns would be related to small-scale fuel and oil spills from vehicles, which are ordinarily minor and would not lead to substantial contamination of soils or water.

The Development Services Environmental Health Division is the Certified Unified Program Agency (CUPA) for Sutter County, with responsibility for monitoring all uses involving the storage and handling of hazardous materials. The CUPA would require any business that uses, generates, processes, produces, treats, stores, emits, or discharges a hazardous material in quantities at or exceeding 55 gallons, 500 pounds, or 200 cubic feet (compressed gas) at any one time during a year to submit a Hazardous Materials Business Plan. The primary purpose of the plan is to provide readily available information regarding the location, type, and health risks of hazardous materials to emergency response personnel, authorized government officials, and the public. The project is not expected to handle hazardous materials in an amount that would require submittal of a Hazardous Materials Business Plan.

All activities and uses must comply with State and County laws and regulations pertaining to the handling and disposal of all hazardous or acutely hazardous materials. The discharge of fuels, oils, other petroleum products, detergents, cleaners, chemicals, or compost materials to the surface of the ground or to drainage ways on or adjacent to the site is prohibited. The State of California has adopted U.S. Department of Transportation regulations for the movement of hazardous materials originating within the state and passing through the state; State regulations are contained in CCR Title 26. Compliance with these regulations is anticipated to lead to a less-than-significant impact.

c) **No impact.** This project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. There are no existing or proposed schools within one-quarter mile of the project site. The closest existing active school is Barry Elementary School, located approximately five miles north of the project site. Therefore, no impact is anticipated.

d) **No impact.** This project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to California Government Code §65962.5. A review of State hazardous material site databases found no records for the project site or immediate

vicinity. As a result, the project would not create a hazard to the public or the environment; therefore, no impact is anticipated.

e) **No impact**. This project is not 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; therefore, this project would not result in a safety hazard or excessive noise for people residing or working in the project area. The nearest public airport is the Yuba County Airport, which is located approximately 7.5 miles northeast of the project site. Due to the project's distance from this facility, no impact is anticipated.

f) **Less than significant impact.** This project would not impact the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan because the project site has adequate frontage on State Highway 113, and would not impede any emergency response or evacuation at or near the site. This proposed project does not pose a unique or unusual use or activity that would impair the effective and efficient implementation of an adopted emergency response or evacuation plan. A less-than-significant impact is anticipated.

g) **Less than significant impact.** This project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. The General Plan indicates the Sutter Buttes and the "river bottoms," or those areas along the Sacramento, Feather, and Bear Rivers within the levee system, are susceptible to wildfires, since much of the areas inside the levees are left in a natural state, thereby allowing combustible fuels to accumulate over long periods of time. The project site is not located in the Sutter Buttes or "river bottom" areas. The project vicinity consists of active agricultural uses and has existing fire protection services. Therefore, a significant risk of loss, injury, or death associated with wildland fires as a result of the proposed project is not anticipated, and impacts are considered less than significant.

(County of Sutter, General Plan Technical Background Report. 2008)

(California Department of Toxic Substances Control, Hazardous Waste and Substances Site List - Site Cleanup (Cortese List). 2022)

X. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			✓	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			✓	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				

i) Result in substantial erosion or siltation on- or off-site;		✓		
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or 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?			✓	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			✓	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				✓

Responses:

a) **Less than significant impact.** This project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. This project proposes the construction and operational use of a 1.33 -acre truck parking yard. Since the total land area of the project would exceed one acre, the applicant is required to obtain coverage under the State Construction General Permit, under the NPDES program (Mitigation Measure No. 3). This program requires implementation of erosion control measures designed to avoid significant erosion. The NPDES construction permit requires implementation of a SWPPP that includes storm water best management practices to control runoff, erosion, and sedimentation from the site. This would minimize potential construction impacts on water quality.

This project is not expected to violate water quality standards or waste discharge requirements. Compliance with applicable requirements would minimize the project's potential impact to water quality. No additional mitigation is necessary, and a less than significant impact is anticipated.

b) **Less than significant impact.** This project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. The project is a truck parking yard, and as such is not expected to increase use of water other than for the proposed landscaping. As described in the Project Description, the landscaping would use low-water plants and irrigation systems considered water-efficient. Under the Commercial and Employment Design Checklist, landscaping shall comply with the current Model Water Efficient Landscaping Ordinance prepared by the California Department of Water Resources, as required by the California Water Conservation in Landscaping Act (Government Code Section 65591 *et seq.*). The landscaping is not expected to use a substantial amount of groundwater. A less-than-significant impact is anticipated.

c-i, -ii, -iii) **Less than significant with mitigation incorporated**. This project would not alter the existing drainage pattern of the site or area. The project site is already substantially developed and paved, so existing drainage patterns would not be altered by the proposed land use. For the same reason, the project would not contribute additional runoff. Runoff would not exceed the capacity of existing stormwater drainage systems in

the vicinity. However, the County has indicated that a drainage study must be prepared for the project. Based on County comments on similar truck yard projects, the following mitigation measures are recommended:

> **Mitigation Measure No. 5 (Hydrology and Water Quality):** DRAINAGE STUDY. Prior to issuance of a grading permit or encroachment permit, the applicant shall obtain approval from the Director of a drainage study that reflects final design conditions for the proposed project per County Standards. The Drainage Study shall be completed and stamped by a Professional Engineer and determined by the County to be comprehensive, accurate, and adequate (SCIS Section 9).
>
> **Mitigation Measure No. 6 (Hydrology and Water Quality):** PRIVATE DRAINAGE IMPROVEMENTS. Prior to commercial use of the site, the applicant shall construct private onsite drainage ditches/basins that provide storm water retention/detention per a County-approved drainage study for this project. Owner shall limit maximum discharge rates, where applicable, to pre-project "existing" conditions for peak 10- and 100-year storms per an approved on-site drainage study for the project. The drainage ditches/basins shall not be connected to the roadside swales. The applicant must obtain a grading permit from the County prior to any grading for storm water retention/detention ditches or basins. The applicant shall provide an as-built drawing of the drainage improvements that is stamped and signed by a licensed Engineer verifying that what was constructed complies with the approved plan for the site.
>
> **Mitigation Measure No. 7 (Hydrology and Water Quality):** PRIVATE DRAINAGE FACILITIES MAINTENANCE AGREEMENT. The property owner shall enter into an agreement with Sutter County committing the property owners and all successors-in-interest to maintain the private drainage facilities (including on-site peak flow attenuation basins) in perpetuity in a manner to preserve storage capacity, drainage patterns, ultimate discharge points and quantities, and water quality treatment controls for stormwater discharges as identified in the drainage study and approved by Sutter County.
>
> **Mitigation Measure No. 8 (Hydrology and Water Quality):** GRADING AND CONSTRUCTION. All impacts to the site must be mitigated in the project area or lands acquired for mitigation by the project. Any Grading or Site Improvements shall be done per an approved plan and in accordance with Sutter County Development Standards. Plans shall be reviewed and approved for construction by the Director of Development Services prior to the start of construction.

In addition, as noted, the applicant would be required to prepare a SWPPP as a component of the General Construction Permit for storm water discharges (Mitigation Measure No. 3). This plan would be implemented during the construction phase of the project and would reduce erosion and stormwater pollution. Therefore, a less-than-significant impact is anticipated.

c-iv) **Less than significant impact.** The project site is located within Flood Zone A according to Flood Insurance Rate Map No. 0603940600E, dated December 2, 2008, issued by the Federal Emergency Management Agency (FEMA). Flood Zone A is one of the Special Flood Hazard Areas that consist of areas subject to inundation by the 1-percent-annual-chance flood event (the “100-year flood”). The applicant shall comply with

all provisions of the Sutter County Floodplain Management Ordinance and FEMA regulations, which will be included as a project condition. FEMA does not restrict parking of trucks or vehicles in Special Flood Hazard Areas. However, the applicant would be required to notify tenants who intend to use the site for truck/vehicle parking of the potential flood depths that may cause flood damage to their trucks/vehicles; this would be implemented as a project condition. With incorporation of these conditions, a less-than-significant impact is anticipated.

d) **Less than significant impact.** This project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. The proposed parking area is not anticipated to risk the release of pollutants due to project inundation in a flood hazard area. No new building construction is proposed. As noted in Section IX, Hazards and Hazardous Materials, no hazardous materials of significant quantities would be stored on the project site. It is possible that trucks on the site may release motor vehicle fuels and fluids if a flood occurs. However, such releases would be minimal and are not expected to cause a significant impact to water quality. There is no anticipated impact to this project site resulting from tsunamis and seiches because the land is not located adjacent to or near any water bodies of sufficient size to create such situations. A less-than-significant impact is anticipated.

e) **No Impact.** This project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. There are no currently adopted water quality control plans covering the project site. The County, along with other agencies, has prepared the Sutter Subbasin Groundwater Sustainability Plan that covers most of Sutter County, including the project site. The public comment period on the plan ended in April 2022. The project is not expected to interfere with implementation of the Groundwater Sustainability Plan, particularly since the project would not generate substantial new water demand. No impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

(Federal Emergency Management Agency, Flood Insurance Rate Map. 2008)

(Sutter Subbasin Groundwater Management Coordination Committee, Groundwater Sustainability Plan for the Sutter Subbasin, 2022)

XI. LAND USE AND PLANNING

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

Responses:

a) **No impact.** This project would not physically divide an established community because the project is located outside the Live Oak and Yuba City spheres of influence and the

County's recognized rural communities. This project would not result in a physical barrier that would divide any existing community, so no impact is anticipated.

b) **Less than significant impact.** This project would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, because the General Plan does not consider the site to be within a hazardous or biologically sensitive area. The County has not adopted any land use plan, policy, or regulation for the purpose of avoiding or mitigating a specific environmental effect that affects this project. Where necessary, mitigation has been incorporated into the project and no additional mitigation measures are necessary. A less-than-significant impact is anticipated.

(County of Sutter, General Plan 2030. 2011)

(County of Sutter, General Plan Technical Background Report. 2008)

(County of Sutter, Zoning Code. 2022)

XII. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
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?				✓

Responses:

a-b) **No impact.** This project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or 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. Neither the General Plan nor the State of California Division of Mines and Geology Special Publication 132 lists the project site as having any substantial mineral deposits of a significant or substantial nature. The project site is not located in the vicinity of any existing surface mines. No impact is anticipated.

(California Department of Conservation, Division of Mines and Geology, Special Report 132: Mineral Land Classification: Portland Cement Concrete-Grade Aggregate in the Yuba City-Marysville Production-Consumption Region. 1988)

(County of Sutter, General Plan Technical Background Report. 2008)

XIII. NOISE

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

Responses:

a) **Less than significant with mitigation incorporated.** To determine noise impacts from the proposed project, the project applicant hired ECORP Consulting, Inc. to prepare an environmental noise assessment. A copy of this assessment is included in Appendix C of this initial study. The noise assessment describes characteristics of noise, the existing noise setting, and the regulatory context, and it presents an analysis of potential noise impacts from project construction and operation activities.

Construction Noise

Construction noise associated with the project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities, as well as construction vehicle traffic on area roadways. During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site. Nearby noise-sensitive land uses consist of a residential property adjacent to the eastern boundary of the project site.

To estimate the worst-case onsite construction noise levels that may occur at the nearest noise-sensitive receptor in the project vicinity in order to evaluate the potential health-related effects (physical damage to the ear) from construction noise, ECORP calculated the construction equipment noise levels using the Roadway Noise Construction Model and compared them against the construction-related noise level threshold established in the *Criteria for a Recommended Standard: Occupational Noise Exposure* prepared in 1998 by the National Institute for Occupational Safety and Health. For the purposes of the analysis, the lowest, more conservative threshold of 85 dBA Leq established by the *Criteria* is used as an acceptable threshold for construction noise at the nearby sensitive receptors. Leq is the equivalent, or average, sound level, which corresponds to a steady-state, A-weighted decibel (dBA) sound level containing the same total energy as a time varying signal over a given time period. The results of the analysis indicated that the potential construction equipment that could be used on the project site would not exceed the 85-dBA at the adjacent residential property.

Project construction would result in additional traffic on adjacent roadways over the period that construction occurs. The noise assessment estimated that project construction would not instigate more than 56 trips in a single day (26 construction worker trips and 30 haul

truck trips).According to the Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol (2013), doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference). Per Caltrans traffic counts, the segment of SR 113 adjacent to the project site currently accommodates an average daily traffic count of 3,500 vehicles. Thus, project construction would not result in a doubling of traffic, and therefore its contribution to existing traffic noise would not be perceptible. Additionally, it is noted that construction is temporary, and these trips would cease upon completion of construction work.

Per Policy N 1.6 of the County's General Plan, all project-related noise-generating construction activities within 1,000 feet of noise-sensitive uses (i.e., residential uses, daycares, schools, convalescent homes, and medical care facilities) are limited to daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays, 8:00 a.m. and 5:00 p.m. on Saturdays, and prohibited on Sundays and holidays unless permission for the latter has been applied for and granted by the County. To ensure compliance with General Plan Policy N 1.6, the following mitigation measure is proposed. Compliance with this mitigation measure would make construction noise impacts less than significant.

> **Mitigation Measure No. 9 (Noise):** During construction, the applicant shall ensure that all project related noise-generating construction activities are limited to daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays, 8:00 a.m. and 5:00 p.m. on Saturdays, and are prohibited on Sundays and holidays unless permission for the latter has been applied for and granted by the County.

Project Operational Noise

Operations of the proposed project would increase ambient noise levels in the immediate vicinity, primarily through off-site traffic noise and on-site parking of trucks and trailers. The noise assessment analyzed noise impacts of off-site project traffic on nearby residences, based on trip generation rates in the Traffic Operational Assessment conducted by KD Anderson & Associates, Inc. (see Section XVII, Transportation and Appendix D). According to the Caltrans *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (2013), doubling of traffic on a roadway would result in an increase of 3 dB - a barely perceptible increase. Per Caltrans traffic counts, the segment of State Highway 113 west of the State Highway 99 intersection accommodates an average daily traffic count of 3,500 vehicles. The Traffic Operational Assessment estimated that the project would generate approximately 38 daily vehicle trips, including trucks. Based on this, the project would not result in a doubling of traffic volume; thus, its contribution to existing traffic noise would not be perceptible.

The main stationary operational noise associated with the project would be activities including internal heavy duty truck circulation/ parking lot activity (i.e., people talking, car door opening and closing and stereo music) and backup beepers from heavy duty trucks. On-site project operations were calculated using the SoundPLAN 3D noise model. The results indicated that noise levels from on-site activities would range from 38.8 to 59.9 dBA Leq. The loudest noise levels would occur at the nearest noise-sensitive receptor – the residence to the east. The Sutter County Noise Level Standards from Stationary Sources is 55 dBA Leq during daytime activities (7:00 a.m.-10:00 p.m.) and 45 dBA Leq for nighttime activities (10:00 p.m.-7:00 a.m.). Therefore, the noise level at the nearest noise sensitive receptor would at times exceed the County's daytime and nighttime noise standards.

However, the project site currently experiences an ambient noise level of 60.7 dBA at 100 feet from the centerline of State Highway 113 as a result of roadway traffic. Thus, the noise-sensitive receptors in the project vicinity already experience noise levels exceeding the predicted on-site project noise sources, and the project's contribution to the noise environment would not be readily perceivable. Additionally, the modeled noise levels were identified as a worst-case scenario. Not all events taking place on the project site would generate as much noise as predicted. The ECORP study concluded that project operational noise would not occur at a level requiring mitigation.

b) **Less than significant impact.** Increases in groundborne vibration levels attributable to the project would be primarily associated with short-term construction-related activities involving equipment. Construction on the project site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. General Plan Policy N 1.7 requires new development to minimize impacts of continuous vibration on adjacent uses during construction, based on criteria established by the County.

The ECORP study analyzed potential construction and operational impacts related to groundborne vibrations, using Caltrans standards to determine significance of impacts. Due to the temporary nature of construction activities, the County thresholds for Land Use Category 2, residences and buildings where people normally sleep, of 80 vibration decibels (VdB) for infrequent events was used in the ECORP analysis. Consistent with Federal Transit Administration recommendations for calculating vibration generated from construction equipment, construction vibration was measured from the center of the Project Site. The nearest structure of concern to the construction site is the residence located east of the project site, approximately 100 feet from the site center. The highest vibration decibel at 25 feet generated from construction equipment is 87 VdB. As ground vibration diminishes in magnitude with increases in distance, the ECORP analysis concluded that the residence would not be negatively affected. In any case, vibration from construction equipment would cease after the anticipated 30-day construction period ends.

Project operations would not include the use of any stationary equipment that would result in excessive vibration levels. Therefore, the project would not result in groundborne vibration impacts during operations. Overall, vibration impacts would be less than significant.

c) **Less than significant impact.** This project is not located within the vicinity of a public airport or public use airport; as noted in Section IX, Hazards and Hazardous Materials, the nearest public airport is the Yuba County Airport, approximately 7.5 miles northeast of the project site.

A private airstrip is located approximately one-quarter mile southeast of the project site. However, as the proposed project is a truck yard with no permanent onsite employees, noise from airstrip operations would have no adverse effect. A less-than-significant impact is anticipated.

(County of Sutter, General Plan 2030. 2011)

(County of Sutter, General Plan Technical Background Report. 2008)

(ECORP Consulting, Inc., Noise Impact Assessment, 1777 Tudor Road Rezone Project, Sutter County, California. 2022)

(KD Anderson & Associates, Inc., 1777 Tudor Road (SR 113) Truck Parking Facility, Sutter Co, CA: Traffic Operational Assessment. 2022)

XIV. POPULATION AND HOUSING

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

Responses:

a) **Less than significant impact.** This project would not induce substantial unplanned population growth in an area, directly or indirectly. No residential use is proposed with this project, so there would be no direct population impacts. The project applicant indicated that no employees would work at the project site. Therefore, the project would not induce substantial indirect population growth. The amount of population growth in the area would be negligible, and a less-than-significant impact is anticipated.

b) **No impact.** This project would not displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere, as there are no existing residents or housing on the project site. The proposed project would not expand beyond the property boundaries; therefore, it would not displace any housing or people outside these boundaries. No impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

XV. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Fire protection?			✓	
ii) Police protection?			✓	

iii) Schools?				✓
iv) Parks?				✓
v) Other public facilities?				✓

Responses:

a-i) **Less than significant impact.** Fire protection services for the project vicinity are provided by Sutter County Fire Services. The project site is in County Service Area F. The nearest fire station is the Oswald-Tudor station (Station 8), located at 1280 Barry Road at the southeast corner of State Highway 99 and Barry Road slightly more than five miles north of the project site. Response time would not be affected by the proposed project. Existing County roads would provide adequate transportation routes to reach the project site in the event of a fire. The project is a truck yard that would provide parking spaces only; no new buildings are proposed. Because of this, the construction of new fire facilities would not be required to provide adequate service to this project. A less-than-significant impact is anticipated.

a-ii) **Less than significant impact.** Law enforcement services for unincorporated portions of Sutter County are provided by the Sutter County Sheriff's Department, and traffic investigation services are provided by the California Highway Patrol. Response time would not be affected by the proposed project. Existing State Highways and County roads would provide adequate transportation routes to reach the project site in the event of an emergency. Because of this, the construction of new facilities would not be required to provide adequate law enforcement service to this project. A less-than-significant impact is anticipated. Traffic impacts are discussed in the Transportation section of this Initial Study.

a-iii) **No impact.** This project would not have a significant impact on schools because this project would not generate additional demand for school services. No new buildings or residences are proposed with this project, so no new students would be generated. No impact is anticipated.

a-iv) **No impact.** This project would not have a significant impact upon parks because it would not generate a need for additional park land or create an additional impact upon existing parks in the region. This project would not result in any new residences which require park services; therefore, this project would not have a significant impact on parks countywide. No impact is anticipated.

a-v) **No impact.** This project is not anticipated to impact other public facilities because the project would not result in the need for additional or new public facilities. No new buildings or residences are proposed with this project that would generate a demand for other public services. No impact is anticipated.

(County of Sutter, Zoning Code. 2022)

(County of Sutter, General Plan Technical Background Report. 2008)

XVI. RECREATION

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

Responses:

a-b) **No impact.** This project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. This project would not result in residential development, which would generate demand for recreational facilities such that new or expanded facilities would be required. There are no existing neighborhood or regional parks in the project vicinity that would be potentially affected. No impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

XVII. TRANSPORTATION

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

Responses:

a) **Less than significant with mitigation incorporated.** This project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. This property is in a rural area approximately six miles south of the southernmost incorporated limits of Yuba City and its sphere of influence. The project area is not served by mass transit or bicycle paths, and no sidewalks have been installed. Given the rural nature of the area, personal vehicles would be the most likely form of transportation.

The Sutter County General Plan establishes the County's Level of Service (LOS) policy for County roads. LOS is a qualitative measure of traffic flow ranging from A to F, with A representing best conditions. Policy M 2.5 is to develop and manage the County roadway segments and intersections to maintain LOS D or better during peak hours, and LOS C or better at all other times. The County LOS standards apply to all County roadway segments and intersections, unless otherwise addressed in an adopted specific plan or community plan.

A Traffic Operational Assessment was prepared for the project by KD Anderson & Associates, Inc. A copy of this assessment is included in Appendix D of this Initial Study and is being reviewed by Caltrans. The Traffic Operational Assessment documents the existing traffic setting, applicable regulations, project travel characteristics, project operational analysis under proposed project and cumulative conditions, and project impacts under CEQA.

For this project, the Traffic Operational Assessment estimated a total of 15 daily truck trips and 23 daily automobile trips that would be generated by the project, for a total of 38 daily trips. This estimate was based on trip generation rates developed from 24-hour traffic counts at a large truck traffic parking area in Yuba City. The assessment did not indicate that any changes to LOS would occur that would cause nearby roads or intersections to operate below County LOS standards.

Since the project anticipates use by STAA trucks, it is expected that Caltrans would require the project applicant to coordinate with Sutter County to process a STAA Terminal Designation application. Because of this, the following mitigation measure is recommended:

> **Mitigation Measure No. 10 (Transportation):** Prior to commercial use of the site and prior to use of this facility by Surface Transportation Assistance Act (STAA) trucks, the California Vehicle Code requires that the access route and facility meet Terminal Access (TA) classification requirements. The applicant can initiate the TA application process by submittal of a written request for TA evaluation to both the Sutter County Development Services Department and the Caltrans District Truck Coordinator. All expenses for TA evaluation, engineering, and improvements required to make the access route and facility meet TA classification requirements shall be borne by the applicant.
>
> **Mitigation Measure No. 11 (Transportation):** The applicant shall construct improvements to the entrance to the site that connects to State Route 113 with the use of STAA Truck Turning Templates. Improvements shall be constructed to allow for:
>
> - The turning of STAA Trucks into and out of the site without crossing into oncoming traffic.
> - The Entrance shall allow for two trucks to pass on site without causing a backup onto State Route 113.
> - The Entrance shall be paved to meet Caltrans Specifications and Sutter County Improvement Standards for an Industrial/Commercial Standard.

- The applicant must obtain an encroachment permit from Caltrans prior to any work in the State Route 113 right-of-way.

b) **Less than significant impact.** This project would not conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b). This section of CEQA states that vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts. VMT refers to the amount and distance of automobile travel attributable to a project. The Governor's Office of Planning and Research's (OPR's) Technical Advisory for VMT assessment clarifies that "the term 'automobile' refers to on-road passenger vehicles, specifically cars and light trucks." It does not include heavy-duty trucks, although VMT for these vehicles could be included for modeling convenience and ease of calculation.

This section also states VMT exceeding an applicable threshold of significance may indicate a significant impact. The County has not adopted a threshold of significance for VMT. Sutter County has not yet adopted guidelines or policies for dealing with VMT. Therefore, the VMT impact assessment in the project traffic analysis uses the guidance in OPR's Technical Advisory.

Screening criteria can be used to quickly identify whether sufficient evidence exists to presume a project would have a less-than-significant VMT impact without conducting a detailed study. Projects meeting at least one of the criteria below can be presumed to have a less-than-significant VMT impact, absent substantial evidence that the project would lead to a significant impact. Of these screening criteria, "small projects" applies to the proposed project.

- Small projects
- Projects near transit stations
- Affordable residential development
- Local-serving retail
- Projects in low VMT-generating area

A "small project", as defined in the Technical Advisory, is a project that generates 110 automobile trips daily or less. As noted in a), the project would generate only 23 automobile trips daily, along with 15 truck trips. Therefore, the project would be considered a small project and can be presumed to have a less-than-significant impact on VMT.

c) **Less than significant with mitigation incorporated.** The project proposes access from State Highway 113. The impacts of a project to safety on Caltrans facilities remains an issue of significance. Under current practice, safety impacts on state facilities are typically considered within the context of queuing on off-ramps and in turn lanes at intersections, truck turning requirements, and the need for alternative traffic control devices. Queuing that spills over from a turn lane or extends along an off-ramp to the mainline freeway could represent significant safety issues. Intersections where truck paths leave the pavement or encroach into opposing lanes are a safety issue. Operation of an intersection with inappropriate traffic control devices would also represent a potential safety issue. The Traffic Operational Assessment analyzed three issues related to safety: sight distances, turn lanes, and truck turning requirements.

Sight Distances

For this project, the minimum sight distance for a design speed of 60 mph is 580 feet. Similarly, for a 60-mph design speed, an entering heavy truck turning left onto eastbound

State Highway 113 would require 1,015 feet of corner sight distance looking right, and 925 feet looking left. The alignment of State Highway 113 in this area is level and straight. As a result, the view measured 15 feet from the edge of the travel way across the Caltrans right of way would satisfy corner sight distance requirements in both directions. However, there may be vegetation in the Caltrans right-of-way that would need to be maintained to perpetuate a clear view from the eye of a driver in the cab of a heavy truck. This includes a tree at the southeast corner of the site that the Traffic Operational Assessment recommended should be removed.

Turn Lanes

The Traffic Operational Assessment considered the need for left-turn lanes and right-turn lanes on State Highway 113 at the project site. There are no left turns lanes at other private access on State Highway 113 from George Washington Boulevard to State Highway 99. Caltrans determines the need for left-turn lanes at private access on state highways on a case-by-case basis, based on Chapter 4 of the Highway Design Manual, as well as guidance in the publication *A Policy on Geometric Design of Highways and Streets* by the American Association of State Highway and Transportation Officials. The volume of traffic turning left into the site is very low; therefore, the Traffic Operational Assessment concluded that a separate left turn lane is not needed.

Depending on the application, Caltrans may elect to require a right-turn lane at private access to reduce the effects of right turns on through traffic flow and safety. The decision is typically based on consideration of factors such as the number and type of vehicles turning right, and speed and volume of through traffic. The number of trucks turning right into the site over the course of a day is low, and with implementation of suggested improvements to the proposed driveway (see below), a separate westbound right-turn lane is not needed to avoid impacting mainline traffic on State Highway 113.

Truck Turning

Large trucks (53-foot trailers) are allowed on mainline State Highway 113 under the STAA, but such vehicles are not permitted on intersecting Sutter County roads unless specifically designated for their use by Caltrans and the County through evaluation of truck turning requirements. Private access anticipating trucks of this classification, as is typically the case for long haul operations, must also have access that can accommodate those vehicles.

While some of the trucks at the site may be classified as California Legal, and do not require additional approvals, trucks permitted under the STAA are also expected by the project proponents. The path of STAA trucks at the proposed site access was plotted in the Traffic Operational Assessment. The results indicate that the paths of heavy trucks with the planned driveway would require use of the full driveway width when entering and exiting in either direction, which would preclude travel through the driveway in the opposite direction. Those truck paths would travel over the graveled area along the project frontage outside of the existing four-foot shoulder.

Truck paths that take over the entire driveway width are a common practice in low traffic volume areas, where inbound trucks can pause at the entrance and wait for any occasional outbound traffic to clear without interfering with through traffic. Nevertheless, the Traffic Operational Assessment recommended, at a minimum, that site access should

be improved to meet the requirements of Highway Design Manual Figure 205.1 in terms of return radius offset and transition, and that concept should be adapted to address the actual turning path shown in the assessment. Based on this recommendation, the following mitigation measure has been identified:

> **Mitigation Measure No. 12 (Transportation):** Site access shall be improved to meet the requirements of Highway Design Manual Figure 205.1 in terms of return radius offset and transition, with necessary adaptations to address the actual turning path shown in the 2022 Traffic Operational Assessment for the project by KD Anderson & Associates, Inc. Access changes shall be incorporated within the final design plans for the project. To improve sight distances for vehicles exiting the project site, a tree at the southeastern corner of the project site shall be removed prior to start of project operations.

The Traffic Operational Assessment evaluated the feasibility of accessing the site via Burch Road, even though the project has no plans to provide access from that road. There appears to be several site limitations associated with Burch Road access for this type of use. Burch Road is not designated a truck route by Sutter County. The available right-of-way on Burch Road is narrow and improving the Burch Road/SR 113 intersection to STAA standards would likely require additional right-of-way and major improvements. Given this, access from Burch Road does not appear to be feasible.

d) **Less than significant impact.** The project would not result in inadequate emergency access. No impacts indicating inadequate access for emergency vehicles were identified by the Traffic Operational Assessment. This project would be required to comply with all County roadway safety, emergency access, and design standards. A less-than-significant impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

(County of Sutter, General Plan 2030. 2011)

(Governor's Office of Planning and Research, Technical Advisory on Evaluating Transportation Impacts in CEQA. 2018)

(KD Anderson & Associates, Inc., 1777 Tudor Road (SR 113) Truck Parking Facility, Sutter Co, CA: Traffic Operational Assessment. 2022)

XVIII. TRIBAL CULTURAL RESOURCES

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or		✓		

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?		✓		

Responses:

a) **Less than significant with mitigation incorporated.** In September of 2014, the California Legislature passed Assembly Bill (AB) 52, which added provisions to the Public Resources Code regarding the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes. Pursuant to the requirements of AB 52, County staff must provide any tribe on a notification list with notice of a proposed project and an invitation to consult within 14 days either of a project application being deemed complete. The tribe has 30 days from receipt of the notification letter to respond in writing, including the designation of a lead contact person. If the tribe requests consultation, then the lead agency has up to 30 days after receiving the tribe's request to initiate formal consultation.

On February 8, 2023, the County sent a notice of the proposed project to seven local Native American Tribes In compliance with AB 52, the 30-day timeline for tribes to request consultation closed March 10, 2023. No requests for consultation have been received for this project.

As noted in the Cultural Resources section, the project site has been extensively disturbed due to past development. The project site is not located within the vicinity of the Bear River, Sacramento River, or Feather River. There is no evidence on the project site indicating that tribal cultural resources exist. Mitigation Measure No. 2 is proposed in the Cultural Resources section to protect possible disturbance of human remains should they be encountered. With this mitigation measure in place, potential impacts on any Native American burials that could be encountered would be addressed, and a less-than-significant impact to tribal cultural resources is anticipated.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			✓	

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?			✓	
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				✓
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			✓	
e) Comply with federal, state and local management and reduction statutes and regulations related to solid waste?			✓	

Responses:

a) **Less than significant impact.** This project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. This project would require no new water service, wastewater treatment service, natural gas, or telecommunications facilities. Electric power needs would be satisfied by tying into existing utilities provided at the site.

In comment letter received from PG&E on 2/14/2023, the proposed improvements do not appear to directly interfere with existing PG&E facilities or impact easement rights. No impact is anticipated.

Existing drainage facilities shall be used by the project; no additional facilities are proposed for construction. The applicant is required to obtain coverage under the State Construction General Permit, which requires implementation of a SWPPP that includes best management practices to control runoff, erosion, and sedimentation from the site. No additional mitigation is needed, and a less than significant impact is anticipated.

b) **Less than significant impact.** This project would not place a significant demand on water supplies. As stated in the Hydrology and Water Quality section, this project is not anticipated to generate any significant water demand other than for landscaping and handwashing at portable stations, the latter to have water brought to the site. No wells or other water facilities would be installed. A less-than-significant impact is anticipated.

c) **No impact.** This project would not result in a determination by a 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. This project is not located in an area that is served by a wastewater treatment provider. As noted in the Project Description, two portable, trailer-mounted portable restrooms will be available on the project site. A minimum of one hand-washing station per restroom will also be provided. Restroom facilities will be maintained daily by the applicant's property manager. Therefore, a demand would not be placed on a local sanitary sewer system, and no impact is anticipated.

d-e) **Less than significant impact.** Solid waste from this project would be disposed of through the local waste disposal company in a sanitary landfill in Yuba County which has sufficient capacity to serve this project. Disposal of project solid waste into that facility

would comply with all federal, state, and local statutes and regulations related to solid waste. As a result, a less-than-significant impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as Very High Fire Hazard Severity Zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				✓
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				✓
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				✓
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				✓

Responses:

a-d) **No impact.** There are no state responsibility areas in Sutter County. A California Department of Forestry and Fire Protection map indicates no fire hazard severity zones have been designated on the project site or in the vicinity. The project would not be subject to any wildfire hazards. No impacts are anticipated.

(California Department of Forestry and Fire Protection, Sutter County Draft Fire Hazard Severity Zones in LRA, 2007)

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
b) Does the project have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are			✓	

considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				
c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?			✓	

RESPONSES:

a) **Less than significant with mitigation incorporated.** No environmental effects were identified in the initial study which indicate this project would have the ability to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Mitigation Measure No. 2, proposed in the Cultural Resources section, would protect possible disturbance of human remains should they be encountered.

b) **Less than significant impact.** The project site is in an area where other truck yard projects have been proposed. One project originally proposed three truck yards: two along Garden Highway and one on Tudor Road, all east of State Highway 99. The Tudor Road site currently does not have an active or pending application. However, the cumulative impact analysis would focus on the proposed project and the other three truck yards, including the one for which no application is pending.

A study analyzing the potential cumulative impacts of truck yard development, primarily along the State Highway 99 corridor south of Yuba City, was conducted for the County by ESA. The study identified six areas of potential cumulative environmental impacts: air quality, health risk from emissions, hydrology, lighting, noise, and traffic. The potential cumulative impacts of the proposed project on each of these issues is presented below.

Air Quality: Data from air quality studies indicate that operational emissions of the proposed project and the three other truck yards would not exceed the established FRAQMD thresholds of significance for criteria pollutants. Future attainment of federal and State ambient air quality standards is a function of successful implementation of the applicable attainment plans. Consequently, the application of significance thresholds for criteria pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. Since none of the proposed truck yards are anticipated to exceed the FRAQMD significance thresholds, they may be considered to have no cumulatively considerable regarding attainment of air quality plans.

Health Risk: Exposure of sensitive receptors to potential health risks are a localized impact and typically are not considered cumulative in character. Air quality analyses for this project and one of the truck yard projects along Garden Highway both concluded that there would be no significant health risks from operations.

Hydrology: As with health risks, hydrologic impacts are localized in character and typically do not have cumulative effects. As noted in the Hydrology and Water Quality section, the proposed project would not exacerbate existing drainage and runoff conditions on the project site. One of the projects along Garden Highway would have a drainage system

that would capture any runoff generated. In addition, mitigation measures described in Section X, Hydrology and Water Quality, would reduce the potential cumulative effects of the project.

Lighting: Lighting impacts are localized in character and typically do not have cumulative effects. As noted in Section I, Aesthetics, the County's Zoning Code contains specific requirements for exterior lighting for large general truck yards proposed within the AG District. The project would not make a cumulative contribution to lighting impacts.

Noise: The County analysis found that the construction of yards would not likely result in impacts from construction noise or vibration. This is confirmed by noise analyses conducted for the proposed project and for one of the proposed Garden Highway truck yards. Operational noise from proposed new truck yards could result from truck maneuvering and operation of TRUs; however, these impacts could be reduced through a combination of measures, including designation of TRU operational areas at each site and/or construction of noise barriers sufficient to block the line of sight between truck yards and receptors. These measures have been proposed for this project and for one of the Garden Highway projects. Traffic from truck yards would not significantly increase noise levels along local roadways.

Traffic: The relative cumulative traffic effects of the proposed project and the other proposed projects in the vicinity were assessed within the context of future traffic volumes and General Plan LOS thresholds. All study area roadways (Garden Highway and Tudor Road) are forecast to continue to operate within the General Plan's LOS C limit with and without the project.

As discussed in Section XVII, Transportation, the proposed project meets the criteria of a "small project" as defined in the OPR Technical Advisory. A small project is considered to not make a significant contribution to VMT; as such, the project would not have a significant cumulative effect on VMT in the area.

Based on the information provided above, and with the mitigation measures proposed in this IS/MND, this project's contribution to cumulative impacts is anticipated to be less than significant.

c) **Less than significant impact**. No environmental effects which would cause substantial adverse effects on human beings either directly or indirectly were identified in the initial study.

(ESA, Sutter County Truck Yard Study Technical Report. 2021)

(KD Anderson & Associates, Inc., 1777 Tudor Road (SR 113) Truck Parking Facility, Sutter Co, Ca: Traffic Operational Assessment. 2022)

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Mitigation Monitoring Program

Mitigation Measure	Timing	Monitoring Agency
Mitigation Measure No. 1 (Air Quality): IMPLEMENT FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT (FRAQMD) STANDARD MITIGATION MEASURES. The project applicant shall implement the following FRAQMD-recommended Standard Mitigation Measures for projects that do not exceed construction or operational thresholds of significance. ● Implement the Fugitive Dust Control Plan prior to any on-site grading, landscaping, or construction activities. The applicant shall submit the fugitive dust control plan to the FRAQMD for review and approval. A copy of the approved plan shall be submitted to the Development Services Department. ● Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions limitations (40 percent opacity or Ringlemann 2.0). ● The contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation. ● Limit idling time to 5 minutes – saves fuel and reduces emissions in accordance with 13 California Code of Regulations (CCR) Chapter 10 Section 2485 and 13 CCR Chapter 9 Article 4.8 Section 2449. ● Utilize existing power sources or clean fuel generators rather than temporary power generators. ● Develop traffic plans to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.	Prior to construction activities/Ongoing	FRAQMD/ Development Services

Mitigation Measure	Timing	Monitoring Agency
● Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require California Air Resources Board (CARB) Portable Equipment Registration with the State or a local district permit. The owner/operator shall be responsible for arranging appropriate consultation with CARB or FRAQMD to determine registration and permitting requirements prior to equipment operation at the site.		
Mitigation Measure No. 2 (Cultural Resources): If archaeological resources are discovered on the project site, potential ground disturbing activities within 100 feet of the find shall be halted immediately and the Development Services Department shall be notified. A qualified archaeologist shall examine the find and evaluate its significance. The archaeologist shall recommend measures needed to reduce effects on the cultural resource in a written report to the County. The County shall be responsible for implementing the report recommendations.	During construction activities	Construction personnel
Mitigation Measure No. 3 (Cultural Resources): California Health and Safety Code §7050.5 states that when human remains are discovered, no further site disturbance can occur until the County Coroner has made the necessary findings as to the origin of the remains and their disposition pursuant to Public Resources Code §5097.98. If the remains are recognized to be those of a Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC shall initiate the process of contacting the most likely descendant and the disposition of the remains pursuant to Public Resources Code §5097.98.	During construction activities	Construction personnel
Mitigation Measure No. 4 (Geology and Soils): STORM WATER QUALITY PROTECTION – DURING CONSTRUCTION. SWPPP - Prior to the start of construction, the applicant shall prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) to be executed through all phases of grading and project construction. The SWPPP shall incorporate Best Management	Prior to the start of construction and during construction	RWQCB/ Development Services Engineering Division

Mitigation Measure	Timing	Monitoring Agency
Practices (BMPs) to ensure that potential water quality impacts during construction phases are minimized. These measures shall be consistent with the County's Improvement Standards and Land Grading and Erosion Control Ordinance and the requirements of the National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. The SWPPP shall be submitted to the County for review and to the Central Valley Regional Water Quality Control Board (RWQCB) as required by the NPDES General Permit in effect during construction. During construction, the applicant shall implement actions and procedures established to reduce the pollutant loadings in storm drain systems. The project applicant shall implement BMPs in accordance with the SWPPP and the County's Improvement Standards. The project applicant(s) shall submit a state storm water permit Waste Discharger Identification number for each construction project. NPDES GENERAL CONSTRUCTION PERMIT – Since the project size is more than one acre, prior to construction the applicant shall file a Notice of Intent with the Central Valley RWQCB to obtain coverage under the California State Water Resources - General Construction Activity Storm Water Permit. Permits are issued by the State Water Resources Control Board, which can provide all information necessary to complete and file the necessary documents. Applicant shall comply with the terms of the General Construction Permit, the County's ordinances, and the NPDES Waste Discharge Requirements for the Sutter County Phase II NPDES Permit.		
Mitigation Measure No. 5 (Hydrology and Water Quality): DRAINAGE STUDY. Prior to issuance of a grading permit or encroachment permit, the applicant shall obtain approval from the Director of a drainage study that reflects final design conditions for the proposed project per County Standards. The Drainage Study shall be completed and stamped by a Professional Engineer and determined by the County to be comprehensive, accurate, and adequate (SCIS Section 9).	Prior to issuance of a grading permit	Development Services Engineering Division

Mitigation Measure	Timing	Monitoring Agency
Mitigation Measure No. 6 (Hydrology and Water Quality): PRIVATE DRAINAGE IMPROVEMENTS. Prior to commercial use of the site, the applicant shall construct private onsite drainage ditches/basins that provide storm water retention/detention per a County-approved drainage study for this project. Owner shall limit maximum discharge rates, where applicable, to pre-project "existing" conditions for peak 10- and 100-year storms per an approved on-site drainage study for the project. The drainage ditches/basins shall not be connected to the roadside swales. The applicant must obtain a grading permit from the County prior to any grading for storm water retention/detention ditches or basins. The applicant shall provide an as-built drawing of the drainage improvements that is stamped and signed by a licensed Engineer verifying that what was constructed complies with the approved plan for the site.	Prior to commercial use of the site	Development Services Engineering Division
Mitigation Measure No. 7 (Hydrology and Water Quality): PRIVATE DRAINAGE FACILITIES MAINTENANCE AGREEMENT. The property owner shall enter into an agreement with Sutter County committing the property owners and all successors-in-interest to maintain the private drainage facilities (including on-site peak flow attenuation basins) in perpetuity in a manner to preserve storage capacity, drainage patterns, ultimate discharge points and quantities, and water quality treatment controls for stormwater discharges as identified in the drainage study and approved by Sutter County.	Prior to commercial use of the site	Development Services Engineering Division
Mitigation Measure No. 8 (Hydrology and Water Quality): GRADING AND CONSTRUCTION. All impacts to the site must be mitigated in the project area or lands acquired for mitigation by the project. Any Grading or Site Improvements shall be done per an approved plan and in accordance with Sutter County Development Standards. Plans shall be reviewed and approved for construction by the Director of Development Services prior to the start of construction.	Prior to start of construction and during construction	Development Services Engineering Division
Mitigation Measure No. 9 (Noise): During construction, the applicant shall ensure that all project related noise-generating construction activities are limited to daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays, 8:00 a.m. and 5:00 p.m. on	Upon start of construction activities	Development Services

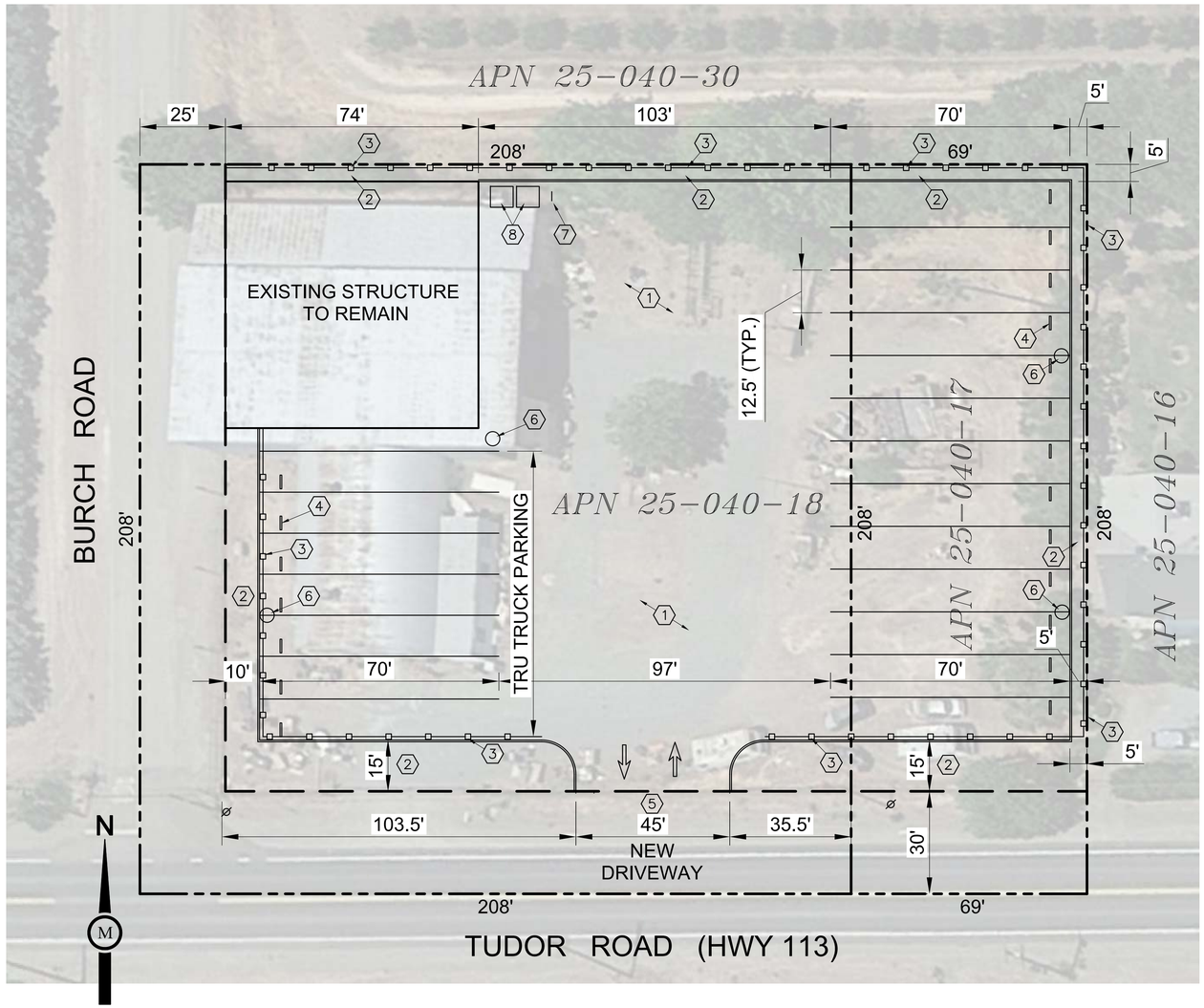
Mitigation Measure	Timing	Monitoring Agency
Saturdays, and are prohibited on Sundays and holidays unless permission for the latter has been applied for and granted by the County.		
Mitigation Measure No. 10 (Transportation): Prior to commercial use of the site and prior to use of this facility by Surface Transportation Assistance Act (STAA) trucks, the California Vehicle Code requires that the access route and facility meet Terminal Access (TA) classification requirements. The applicant can initiate the TA application process by submittal of a written request for TA evaluation to both the Sutter County Development Services Department and the Caltrans District Truck Coordinator. All expenses for TA evaluation, engineering, and improvements required to make the access route and facility meet TA classification requirements shall be borne by the applicant.	Prior to commercial use and prior to use of the site by STAA trucks	Development Services/Caltrans
Mitigation Measure No. 11 (Transportation): The applicant shall construct improvements to the entrance to the site that connects to State Route 113 with the use of STAA Truck Turning Templates. Improvements shall be constructed to allow for: ● The turning of STAA Trucks into and out of the site without crossing into oncoming traffic. ● The entrance shall allow for two trucks to pass on site without causing a backup onto State Route 113. ● The entrance shall be paved to meet Caltrans Specifications and Sutter County Improvement Standards for an Industrial/Commercial Standard. ● The applicant must obtain an encroachment permit from Caltrans prior to any work in the State Route 113 right-of-way.	Prior to the use of the site by STAA trucks.	Development Services/Caltrans
Mitigation Measure No. 12 (Transportation): Site access shall be improved to meet the requirements of Highway Design Manual Figure 205.1 in terms of return radius offset and transition, with necessary adaptations to address the actual turning path shown in the 2022 traffic analysis for the project by KD Anderson & Associates, Inc. Access changes shall be incorporated within the final design plans for the	Site access improvements prior to use of the site by STAA trucks. Tree removal prior to start of project operations.	Development Services/Caltrans

Mitigation Measure	Timing	Monitoring Agency
project. To improve sight distances for vehicles exiting the project site, a tree at the southeastern corner of the project site shall be removed prior to start of project operations.		

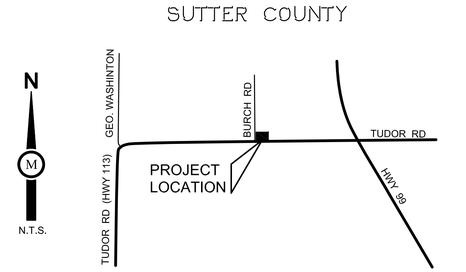
APPENDIX A
PROJECT DRAWINGS

PROPOSED TRUCK YARD

1777 TUDOR ROAD (HWY 113)
YUBA CITY, CA 95993
A.P.N. 25-040-18 & 25-040-17



SITE PLAN
1" = 20'



VICINITY MAP
NOT TO SCALE

CONSTRUCTION NOTES

1. NEW ASPHALT CONCRETE PAVEMENT
2. NEW LANDSCAPE AREA. ALL LANDSCAPE AREAS SHALL INCLUDE SIX-INCH CONCRETE CURBING TO SEPARATE LANDSCAPING FROM REQUIRED PARKING AND DRIVEWAYS.
3. NEW 6 FT. HIGH CHAIN-LINK FENCE WITH PRIVACY SLATS
4. NEW WHEELSTOP TO PREVENT TRUCK FROM HITTING FENCE OR LANDSCAPING
5. NEW DRIVEWAY PER CALTRANS STDS.
6. NEW 55 GALLON TRASH WASTE RECEPTACLE (TYPICAL OF 4)
7. NEW BICYCLE RACK (2 SPACES PROVIDED)
8. NEW PORTABLE TRAILER MOUNTED RESTROOM FACILITIES (2 RESTROOMS PROVIDED)

LOT DATA:

A.P.N.:	25-040-018 & 25-040-017
TOTAL ACREAGE:	±57,935 SF (1.33 AC)
EXISTING PARCELS:	2
PROPOSED PARCELS:	2
EXISTING ZONE:	AG - AGRICULTURE
PROPOSED ZONE:	AG - AGRICULTURE
EXISTING USE:	REPAIR SHOP / STORAGE
PROPOSED USE:	TRUCK YARD (PARKING)

PARKING DATA:

TRUCK PARKING SPACE (12.5'x70')	20 SPACES

PROPERTY DESCRIPTION

REAL PROPERTY IN THE COUNTY OF SUTTER, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEING A PORTION OF NORTHWEST QUARTER OF SECTION 4, T. 13 N., R. 3 E., M.D.B.&M.

SITE UTILITIES

SEWAGE DISPOSAL:	PRIVATE ONSITE
WATER SUPPLY:	PRIVATE ONSITE
DRAINAGE:	SUTTER COUNTY

SHEET INDEX

APPLICANT

SARB THIARA
C/O HARMINDER SINGH
(530) 682-2484

Milestone Associates Imagineering, Inc.
1000 Lincoln Road, Suite H202, Yuba City, CA 95991
(530) 755-4700

PROPOSED TRUCK YARD
1777 TUDOR ROAD (HWY 113) YUBA CITY, CA

SITE PLAN / PROJECT DATA

1

2-24-23

PRELIMINARY PLANT SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	WATER USE
PARKING LOT TREES				
	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	24" BOX	MODERATE
	PISTACIA CHINENSIS 'KEITH DAVEY'	KEITH DAVEY CHINESE PISTACHE	24" BOX	LOW
	ULMUS PARVIFOLIA	CHINESE ELM	24" BOX	MODERATE
UPRIGHT TREES				
	ACER X FREEMANII 'ARMSTRONG'	ARMSTRONG MAPLE	15 GAL	MODERATE
	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY GINKGO	15 GAL	MODERATE
	LAURUS NOBILIS 'SARATOGA'	SARATOGA LAUREL	15 GAL	LOW
GRASSES AND GRASS-LIKE PLANTS				
	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	5 GAL	LOW
	DIETES BICOLOR	FORTNIGHT LILY	5 GAL	LOW
	MUHLENBERIGA CAPILLARIS	PINK MUHLY GRASS	1 GAL	LOW
MEDIUM HEIGHT SHRUBS				
	CISTUS X PURPUREUS	ORCHID ROCKROSE	5 GAL	LOW
	MYRTUS COMMUNIS 'COMPACTA'	COMPACT MYRTLE	5 GAL	LOW
	OLEA EUROPAEA 'LITTLE OLLIE'	LITTLE OLLIE OLIVE	5 GAL	LOW
SCREEN SHRUBS / HEDGES				
	NERIUM OLEANDER	OLEANDER	5 GAL	LOW
	RHAMNUS CALIFORNICA	COFFEEBERRY	5 GAL	LOW
	XYLOSMA CONGESTUM 'COMPACTA'	COMPACT XYLOSMA	5 GAL	LOW
MISCELLANEOUS				
	2"–4" DIAMETER RIVER COBBLE			

* THE PLANTS LISTED IN THE PRELIMINARY PLANT SCHEDULE ABOVE REPRESENTS A SAMPLE OF THE TYPES OF TREES, SHRUBS, AND GROUNDCOVERS THAT WE ANTICIPATE BEING APPROPRIATE FOR THIS LOCATION AND REPRESENTS THE OVERALL DESIGN STYLE AND THEME. THE FINAL PLANT SELECTION WILL DRAW FROM THIS LIST; IN ADDITION, NOT ALL PLANS LISTED MAY BE USED AND NEW PLANT SPECIES MAY BE ADDED. HOWEVER, THE PLANTING DESIGN INTENT WILL REMAIN CONSISTENT WITH THIS PLAN AND PLANT SCHEDULE.

PRELIMINARY IRRIGATED LANDSCAPE WATER EFFICIENCY TABLE

WATER BUDGET CALCULATIONS

MAXIMUM APPLIED WATER ALLOWANCE

MAWA=(ETo)(0.62)((0.45xLA)+((1.0–0.45)xSLA))	LOCAL ETo=	LA =	SLA =		MAWA TOTAL=
	46.7	3,830	0		49,902 GAL.

ESTIMATED TOTAL WATER USE

ETWU=(ETo)(0.62)(((PFxHA)/IE)+SLA)	LOCAL ETo=	PF =	LA =	SLA =		ETWU TOTAL=
	46.7	SEE BELOW	3,830	0		42,305 GAL.

HYDROZONE INFORMATION TABLE

HYDROZONE TAG	PLANT FACTOR (PF)	IRRIGATION METHOD	IRRIGATION EFFICIENCY (IE)	ETAF (PF/IE)	LANDSCAPE AREA (SF)	ETAF X AREA	ESTIMATED TOTAL WATER USE (ETWU)
LANDSCAPE AREAS							
(TREE/RWS/MODERATE)	0.50	RWS	0.81	0.62	904 SF	558	16,157 GAL
(SHRUB/DRIP/LOW)	0.25	BUBBLER	0.81	0.31	2,926 SF	903	26,148 GAL
					TOTAL AREA= 3,830 SF	TOTAL= 1,461	TOTAL = 42,305 GAL.
SPECIAL LANDSCAPE AREAS							
				1	0 SF	0	0 GAL
					TOTAL AREA= 0 SF	TOTAL= 0	TOTAL = 0 GAL.

* THIS INFORMATION DERIVED FROM PLANT FACTOR DESIGNATIONS IN THE WUCOLS IV DOCUMENT.

PROJECT IRRIGATION NOTE

THE PROPOSED PLANTING DESIGN FOR THIS PROJECT IS COMPRISED OF PREDOMINATELY LOW–WATER USE TREES, SHRUBS, AND GROUNDCOVERS. THE TREES WILL BE IRRIGATED WITH A ROOT WATERING SYSTEM AND A SURFACE SUPPLEMENTAL BUBBLER. THE SHRUBS AND GROUNDCOVERS WILL BE IRRIGATED WITH LOW VOLUME POINT SOURCE DRIP/BUBBLERS TO PROVIDE ADEQUATE WATER TO THE PLANT ROOT ZONE. THE SITE IRRIGATION WILL BE CONTROLLED BY A 'SMART' CONTROLLER WITH WEATHER SENSING CAPABILITIES (HUNTER, RAINBIRD, OR EQUAL). THE POINT OF CONNECTION WILL UTILIZE A BACKFLOW PREVENTER, MASTER VALVE, AND FLOW SENSOR TO COMPLY WITH ALL APPLICABLE LOCAL AND STATE WATER EFFICIENT LANDSCAPE ORDINANCE CODES.

PRELIMINARY HARDSCAPE SHADING CALCULATIONS

SHADING AREA BY TREE TYPE:

PARKING LOT TREES:	0@962=0	0@707=0	6@481=2,886	0@240=0
PERIMETER SCREEN TREES:	0@491=0	0@368=0	25@246=6,150	0@123=0

TOTAL AREA SHADED BY TREES: 9,036 SF

TOTAL HARDSCAPE AREA REQUIRING SHADING: 34,828 SF

PERCENT OF HARDSCAPE SHADED: 25.9%

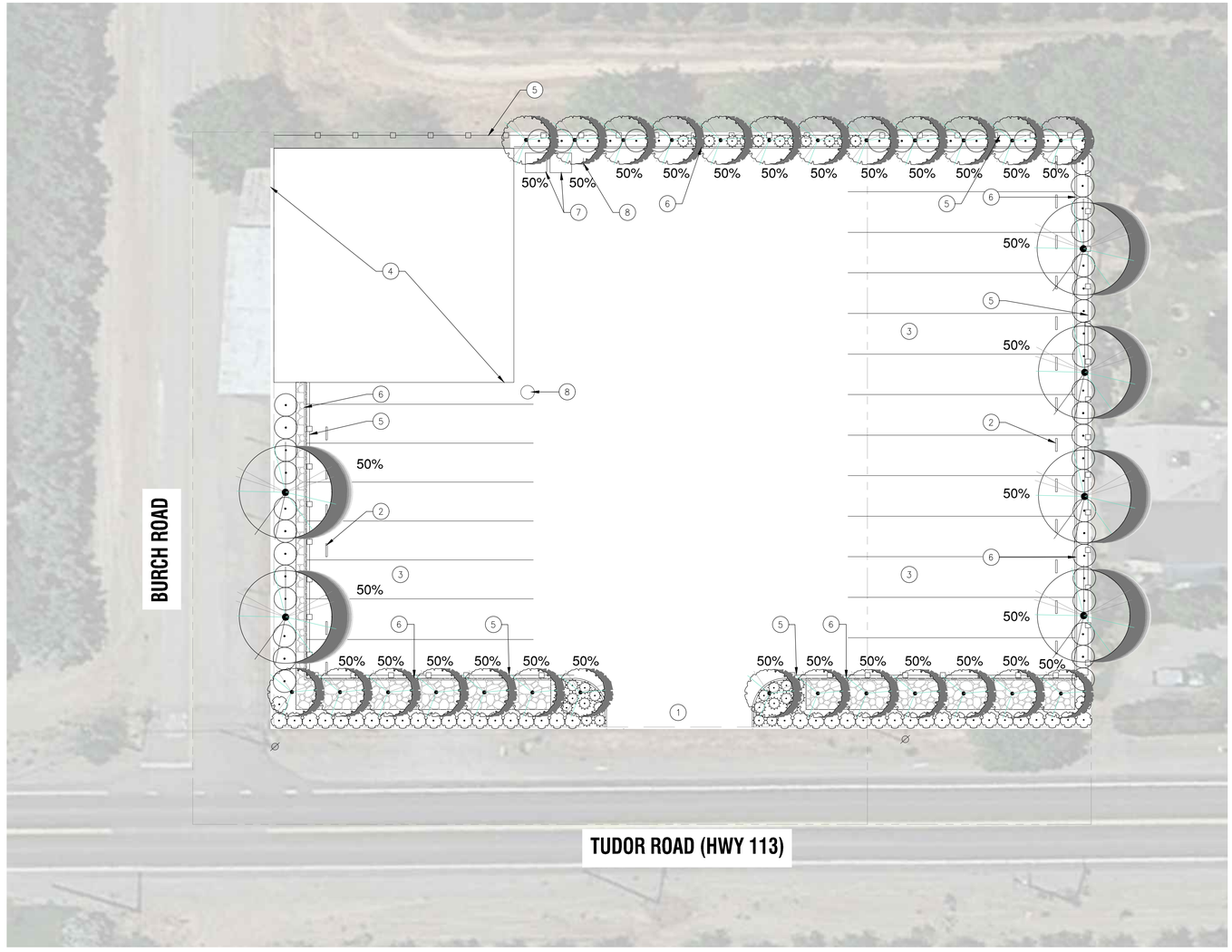
LANDSCAPE AREA CALCULATIONS

TOTAL PROJECT AREA – PARCEL SIZE:	46,200 SF	
TOTAL LANDSCAPE AREA:	5,680 SF	100%
SHRUB AND GROUNDCOVER AREA:	3,830 SF	67.4%
COBBLE AREA:	1,850 SF	32.6%

PERCENT OF SITE IN LANDSCAPE: 12.3%

LEGEND

1. ENTRY DRIVE
2. WHEEL STOPS PER ARCHITECT'S PLANS
3. PROPOSED TRUCK/TRAILER STALL (12.5'X70')
4. EXISTING STRUCTURE TO REMAIN
5. PERIMETER FENCE, PER ARCHITECT'S PLANS
6. PARKING LOT CURB, PER CIVIL ENGINEER'S PLANS
7. PORTABLE RESTROOM PER ARCHITECT'S PLANS
8. BICYCLE RACKS, PER ARCHITECTS PLAN'S
9. TRASH RECEPTACLE, PER ARCHITECT'S PLANS



N

0 10 20 40

SCALE: 1" = 20'

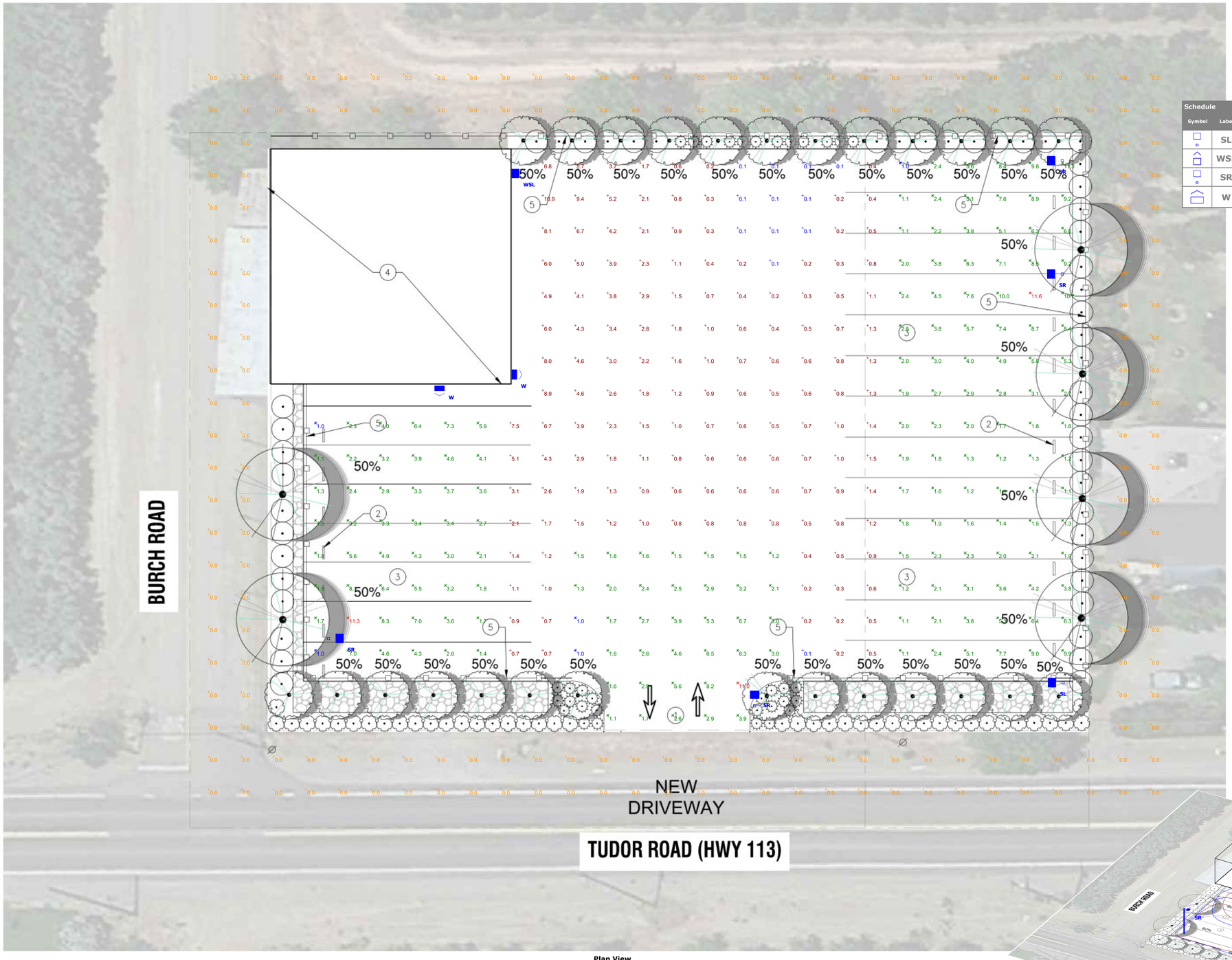
NOTE: THIS DOCUMENT IS FOR CONCEPTUAL PLANNING PURPOSES ONLY. THIS DOCUMENT IS MARKED PRELIMINARY AND NOT TO BE USED FOR CONSTRUCTION PURPOSES. ANY IMAGES SHOWN ARE TO CONVEY CONCEPT ONLY. CONSTRUCTION PLANS WILL VARY DEPENDING ON BUDGET, CLIENT DIRECTION, COMMUNITY INPUT AND FINAL MATERIALS SELECTION.

O'DELL ENGINEERING
1165 Scenic Drive, Suite A
Modesto, CA 95350
odellengineering.com

PROPOSED TRUCK YARD
1777 TUDOR ROAD (HWY 113) YUBA CITY, CA

PRELIMINARY LANDSCAPE PLAN 2

02-24-2023



Plan View
Scale - 1/16" = 1ft

Schedule

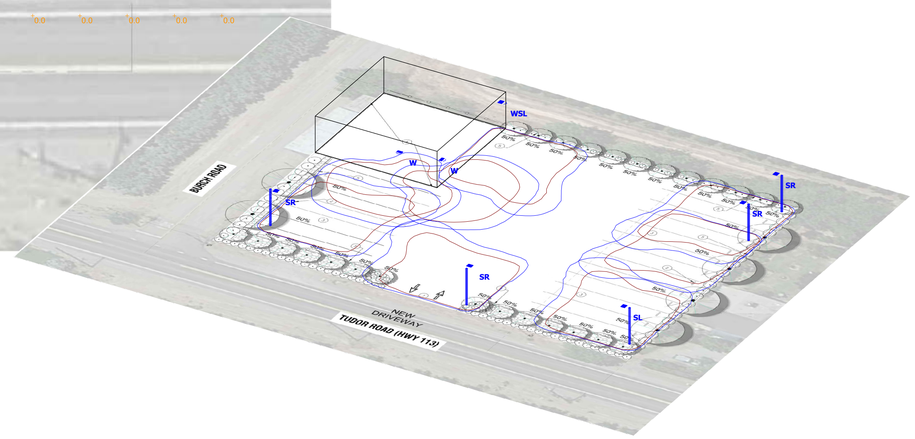
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
	SL	1	Lithonia Lighting	DSX1 LED P9 40K LCCO MVOLT	DSX1 LED P9 40K LCCO MVOLT	1	16825	0.9	241
	WSL	1	Lithonia Lighting	DSX1 LED P9 40K LCCO MVOLT	DSX1 LED P9 40K LCCO MVOLT, WALL MOUNT	1	16825	0.9	241
	SR	4	Lithonia Lighting	DSX1 LED P9 40K RCCO MVOLT	DSX1 LED P9 40K RCCO MVOLT	1	16825	0.9	241
	W	2	Lithonia Lighting	WDGE3 LED P4 70CRI RFT 40K	WDGE3 LED WITH P4 - PERFORMANCE PACKAGE, 4000K, 70CRI, FORWARD THROW OPTIC	1	12277	0.9	87.8914

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
25' PERIMETER	+	0.0 fc	0.0 fc	0.0 fc	N/A	N/A
DRIVE / PARKING	+	2.9 fc	11.6 fc	0.1 fc	116.0:1	29.0:1
EAST PARKING STALLS	+	4.0 fc	11.6 fc	1.0 fc	11.6:1	4.0:1
ENTRANCE	+	3.2 fc	11.0 fc	1.0 fc	11.0:1	3.2:1
WEST PARKING STALLS	+	3.8 fc	11.3 fc	1.0 fc	11.3:1	3.8:1

Luminaire Locations

Label	MH
SL	22.00
SR	22.00
W	16.00
WSL	20.00



South East View

Disclaimer
Photometric analyses performed by CJS Lighting are intended or informational and/or estimation purposes only. Using industry-recognized software, calculations correspond to the information provided to CJS Lighting, and are subject to the limitations of the software. Assumptions may be made for information that is not provided or available. It is the responsibility of the client to verify that the input data is consistent with actual field conditions.
Due to the above considerations, CJS Lighting does not guarantee that actual light levels measured in the field will match initial calculations, and recommend that drawings be submitted to a certified electrical engineer for verification.

CJS Lighting

TUDOR REZONE
SITE rev4

Designer
DEW
Date
07/06/2022 rev4
Scale
Not to Scale
Drawing No.

Summary

APPENDIX B
AIR QUALITY AND GREENHOUSE GAS ANALYSIS

Draft Analysis of Impacts to Air Quality and Greenhouse Gas from Proposed Truck Yard

Yuba City, California

June 24, 2022

Prepared For:
Milestone Associates
1000 Lincoln Road
Yuba City, CA 95991
Contact: Julio Tinajero

Prepared By:
Environmental Permitting Specialists
7068 Riverside Boulevard
Sacramento, CA 95831
Contact: Ray Kapahi, Principal
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Ray.Kapahi@gmail.com

TABLE OF CONTENTS

SECTION 1: INTRODUCTION

Environmental Permitting Specialists (EPS) has been retained by Milestone Associates to evaluate impacts to air quality, greenhouse gas (GHG) and public health risks associated with the proposed rezoning of a general truck yard in Sutter County. The proposed truck yard is located at 1777 Tudor Road, Yuba City. This analysis has been prepared in support of an environmental review being conducted by the Planning Department at Sutter County.

The project, is located at 1777 Tudor Road at the Northeast corner of Tudor Road and Burch Road in the rural section of Sutter County. It is approximately 1 acre and has been assigned an Assessor's Parcel Number 25-040-018 (Figure 1). The site is currently vacant with one structure that will remain at the site (Figure 1-2). The parking yard will be a self-serve type with no employees or attendants. It would operate 24 hours per day, 7 days per week. Trucks would travel from the yard to nearby arterial roads and highways such as Routes 113, 99 and Interstate-5.

Construction at the site would involve minimal grading and site work followed by paving. No demolition is planned. Construction is expected to begin sometime in 2022 and would be completed in 30 days. The following impacts are evaluated:

Project Phase	Air Quality	Public Health	Greenhouse Gas
Construction	x		x
Operational (Occupancy)	x	x	x

The overall approach used in this analysis is to quantify the emission rates of regulated air pollutants for the construction and occupancy phases and then compare the emission rates with thresholds of significance established by the Feather River Air Quality Management District (FRAQMD). The project is considered to have potentially significant environmental impact if any of the emission rates exceed the thresholds of significance established by FRAQMD. The thresholds of significance are discussed in Section 3.

This report is divided into 3 main sections. Immediately following this Introduction, the project emissions are discussed in Section 2. The significance of project emissions and their impacts is discussed in Section 3. Technical details and calculations are provided in the Appendix.

Figure 1-1
Vicinity Map

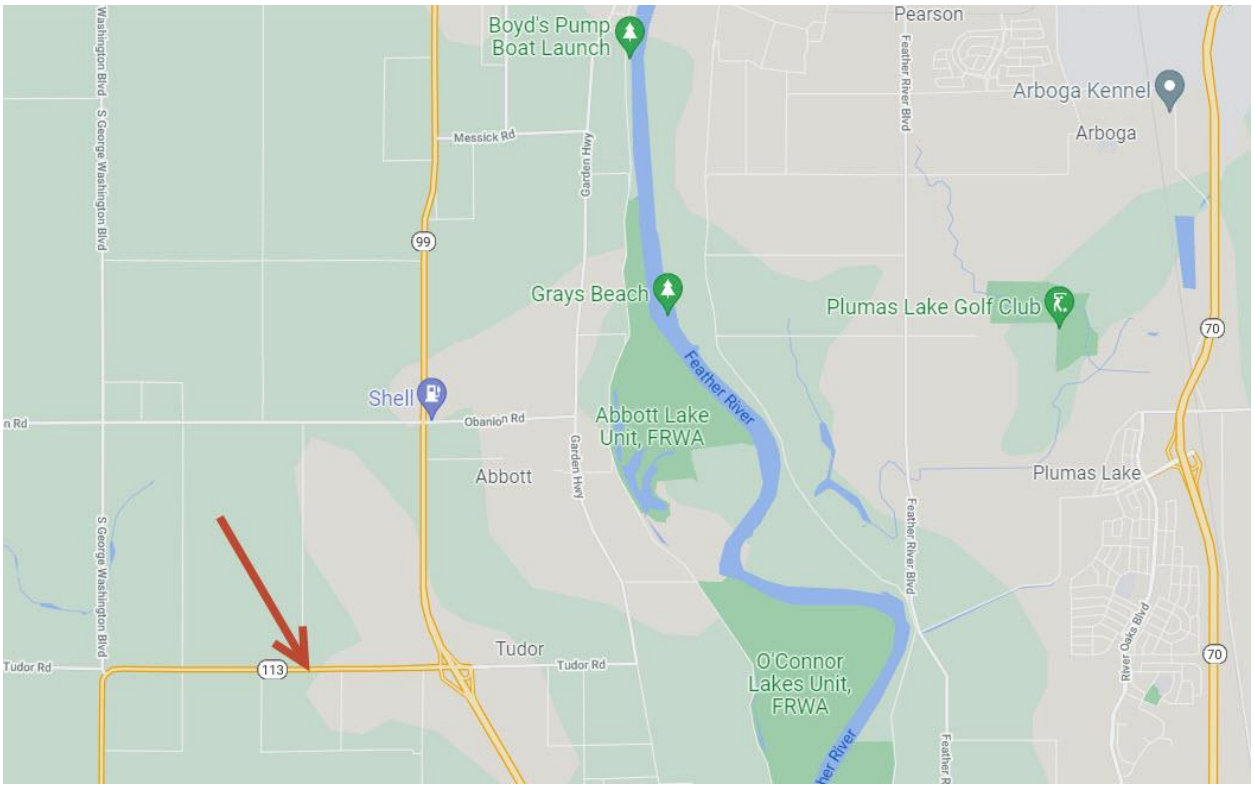

Figure 1-2
Site Map

SECTION 2: PROJECT EMISSIONS

The construction and operation of the truck parking yard would release a variety of emissions. These can be divided into three categories:

A. Criteria air emissions
   - Oxides of nitrogen (NOx)
   - Carbon monoxide (CO)
   - Volatile organic compounds (VOCs)
   - Oxides of sulfur (SOx)
   - Fine particulate matter (PM-10)
   - Ultra-fine particulate matter (PM-2.5)

B. Emissions of toxic air contaminants (TACs)
   - Primarily diesel particulate matter (DPM, same as exhaust PM-10))

C. Emissions of greenhouse gases
   - Carbon dioxide (CO_2)
   - Methane (CH_4)
   - Nitrous Oxide (N_2O_2)

2.1 Construction Emissions

As noted in the Introduction, construction would consist of site work, some minimal grading and paving. These activities would release fugitive dust from grading and site-work, exhaust emissions from construction equipment and VOC emissions from the asphaltic concrete.

The emission rates were calculated using the California Emissions Estimator Model (CalEEMod) developed by the California Air Pollution Control Officers Association. Version 2020.4.0 of this model was used to calculate the emissions. The results are summarized in Figures 2-1 and 2-2.

Figure 2-1
Maximum Daily Emissions – Construction Phase

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year	lb/day									
2022	1.5868	12.0213	7.5960	0.0147	5.1125	0.5562	5.6301	2.5574	0.5184	3.0336
Maximum	**1.5868**	**12.0213**	**7.5960**	**0.0147**	**5.1125**	**0.5562**	**5.6301**	**2.5574**	**0.5184**	**3.0336**

Figure 2-2
Maximum Daily GHG Emissions – Construction Phase

Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day					
0.0000	1,425.8505	1,425.8505	0.4432	3.6900e-003	1,437.4192
0.0000	1,425.8505	1,425.8505	0.4432	3.6900e-003	1,437.4192

A copy of the CalEEMod emissions reports are provided in Appendix 1.

2.2 Operational Emissions

Operating emissions consist of truck and light duty vehicle exhaust emissions and any fugitive road dust from vehicle travel on paved roads. Vehicle exhaust emissions were calculated using the Emissions Factor (EMFAC) model developed by the California Air Resources Board to assess mobile source emissions for each air basin, county or the whole state. EMFAC 2021 was used for vehicle emissions for calendar year 2022 and is based on an aggregate of all model years currently operating statewide. The EMFAC 2021 model provides emissions in terms of grams per mile for each vehicle category as well as emissions during truck idling in terms of grams per 8 hour day. An excerpt of the EMFAC 2021 model is shown in Figure 2-3.

Figure 2-3
Excerpt of EMFAC Model Output for Sutter County

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: Statewide
Region: California
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC202x Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHE

Region	CY	Veh Category	Model Year	Speed	Fuel	NOx_RUNEX	NOx_IDLEX	PM2.5_RUNEX	PM2.5_IDLEX	PM10_RUNEX	PM10_IDLEX
Statewide	2022	LDA	Aggregate	Aggregate	Gasoline	0.05398061	0	0.00138461	0	0.001505864	0
Statewide	2022	T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	1.67187442	15.70238928	0.028147738	0.080828335	0.029420454	0.084483033

Daily emissions were calculated as follows:

$$\text{Daily Emissions in pounds} = \frac{\text{Emission Factor (grams/mile) x Miles Travelled per Day.}}{\text{454 grams/pound}}$$

Emissions of fugitive road dust were estimated using data published by ARB "Entrained Road Travel, Paved Road Dust" (ARB 2018). Data are provided for each County It is based on annual vehicle miles travelled and the amount of road dust that is entrained into the atmosphere. For 2018, ARB reported 798 million miles were travelled (VMT) resulting in emissions of 55.74 tons of PM-10 from major roads. This equates to 0.00014 pounds of PM-10 emissions per VMT.

For daily vehicle trips, EPS relied on the traffic study completed by K. D. Anderson, Inc. indicated the following daily traffic volumes:

Figure 2-4
Estimate of Daily Vehicle Trips

	HD Trucks	Light Duty Cars and Trucks
Daily Volume	16	24

An estimate of daily emissions based on these trips is provided in Tables 2-1 and 2-2 for light duty vehicles and trucks respectively. An estimate of GHG emissions is included in these tables.

Table 2-1

Emissions from Automobiles and Light Duty Trucks

Pollutant	EF (g/mile)	Emissions (lbs/day)	Emissions (lbs/yr)	Emissions (tons/yr)
NOx	0.0540	0.03	10.4	0.005
PM-2.5				
Exhaust	0.0014	0.00	0.3	0.0001
Road Dust	2.10E-05	1.11E-05	4.04E-03	2.02E-06
Total	0.0014	0.0007	0.2712	0.0001
PM-10				
Exhaust	0.0015	0.0008	0.291	0.0001
Road Dust	1.40E-04	7.38E-05	2.70E-02	1.35E-05
Total	0.0016	0.0009	0.3175	0.0002
ROG	0.0128	0.01	2.5	0.001
SOx	0.0029	0.00	0.6	0.000
CO	0.8922	0.47	172.2	0.086
CO2(e)	298.3421	157.71	57,566	28.783

Notes		
No. of Vehicles:	24	vehicles/day
Trip Length:	10	miles
Operating Days/yr:	365	days/yr
Ratio PM-2.5/PM-10:	0.15	Ref: ARB Road Dust Speciation Profile #471

Table 2-2

Emissions from Automobiles and Heavy Duty Trucks

Pollutant	EF (g/mile)	Emissions (lbs/day)	Emissions (lbs/yr)	Emissions (tons/yr)
NOx	1.6719	1.18	430.1	0.215
PM-2.5				
Exhaust	0.0281	0.02	7.2	0.0036
Road Dust	2.10E-05	1.48E-05	5.39E-03	2.70E-06
Total	0.0282	0.0199	7.2469	0.0036
PM-10				
Exhaust	0.0294	0.0207	7.569	0.0038
Road Dust	0.0001	0.0001	0.036	0.0000
Total	0.0296	0.0208	7.6049	0.0038
ROG	0.0598	0.04	15.4	0.008
SOx	0.0105	0.01	2.7	0.001
CO	0.1847	0.13	47.5	0.024
CO2(e)	1168.0	823.2	300,486	150.2

Notes		
No. of Vehicles:	16	vehicles/day
Trip Length:	20	miles
Operating Days/yr:	365	days/yr
Ratio PM-2.5/PM-10:	0.15	Ref: ARB Road Dust Speciation Profile #471

SECTION 3: SIGNIFICANCE OF PROJECT IMPACTS

The emissions presented in Section 2 for criteria air pollutants are compared with mass emission thresholds established by the FRAQMD and Sutter County. The current project is classified as a General Truck Yard by the County.

3.1 Significance Criteria

The significance criteria are summarized below.

FRAQMD MASS EMISSIONS THRESHOLDS OF SIGNIFICANCE

	NO_x	ROG	PM_{10}
Construction	25ppd, not to exceed 4.5tpy[a]	25ppd, not to exceed 4.5tpy[a]	80ppd
Operation	25ppd	25ppd	80ppd

NOTES:

a NO_x and ROG construction emissions may be averaged over the life of the project, but may not exceed 4.5 tpy. tpy=tons per year; ppd=pounds per day

SOURCE: Feather River Air Quality Management District (FRAQMD), 2010. *Indirect Source Review Guidelines; Chapter 3: Thresholds of Significance*. June 7, 2020. Available at https://www.fraqmd.org/files/658e76309/Chapter+3.pdf. Accessed September 2, 2020.

In addition, Sutter County had adopted significance criteria on June 28, 2016 that applies to annual GHG emissions. These criteria specified a threshold of 3,000 metric tonnes of carbon dioxide equivalents [MT CO_2(e)]. Projects with annual GHG emissions below 3,000 MT CO_2(e) are considered to have negligible impacts individually and cumulatively.

For toxic air, the significance criteria are follows:

Cancer Risk:	Maximum 10 cancers/million
Non-Cancer Hazard Index:	Maximum 1.0

3.2 Project Impacts

3.2.1 Criteria Pollutant Emissions

The project's short-term operating emissions and a comparison with the significance thresholds are summarized in Table 3-1.

Table 3-1
Comparison of Daily Construction Emissions with Thresholds of Significance

Pollutant	Emissions	Threshold of Significance	Impact Significant?
NOx	12.02	25	No
ROG	1.59	25	No
PM-10	5.63	80	No

The project's long-term operating emissions and a comparison with the significance thresholds are summarized in Table 3-2.

Table 3-2
Summary of Long-Term Emissions of Criteria Air Pollutants

Pollutant	Emissions (lbs/day)			Threshold of Significance	Impact Significant ?
	Autos	Trucks	Total		
NOx	0.029	1.178	1.21	25	No
PM-2.5	0.00	0.0199	0.02	No Threshold	N/A
PM-10	0.00	0.0208	0.02	80	No
ROG	0.01	0.0068	0.01	25	No
SOx	0.00	0.0074	0.01	No Threshold	N/A
CO	0.47	0.130	0.60	No Threshold	N/A
CO2e (tons/yr)	28.8	150.2	179.0	Exempt	No

3.2.2 GHG Emissions

The annual GHG emissions for the current project are approximately 179 MT CO_2(e) per year [28.78 from autos + 150.2 from trucks]. These annual emissions are well below the 3,000 MT CO_2(e) threshold established by the County and therefore GHG impacts are considered less than significant.

3.2.3 Emissions of Toxic Air Contaminants

For toxic air pollutants, the main TAC is diesel exhaust particulate matter (DPM). DPM is regulated as a carcinogen by the FRAQMD and the California Air Resources Board. The emission rates of exhaust PM-10 are considered a surrogate for DPM. For the current project, annual on-site emission rates of exhaust PM-10 were estimated. These emissions occur during truck idling. As shown in Figure 2-3, on-site truck idle emissions are only 0.084 grams per 8 hour day or 0.0105 grams per hour. For the current analysis, each truck was assumed to idle 15 minutes. For all 16 trucks, this equates to 240 minutes (4 hours) of idle time per day or 1,460 hours per year.

Annual DPM are estimated as follows:

$$\text{Annual Emissions} = \frac{1{,}460 \text{ hrs/yr} \times 0.0105 \text{ grams/hr}}{454 \text{ grams/lb}} = 0.034 \text{ lbs/yr}$$

Given the very low level of annual DPM emissions, a detailed health risk assessment is not warranted. Therefore, a screening level risk analysis was completed. A screening level risk analysis provides a conservative estimate of potential health risks. A "cancer risk score" is calculated for various distances from the project site. If the cancer risk score is above 10 at the nearest home, then the risk is considered significant and then a more detailed health risks analysis is prepared.

The results of the screening level risk analysis are shown in Table 3-3. The cancer risk score is given for various distances (in meters). For example, the score is 7.85E-02 (0.0785) for distances between 0 to 100 meters (0 to 328 feet). For distances greater than 100 meters, the risk score is 1.96E-02 (0.0196) or lower. These results indicate that exposure to DPM would not result in a significant impact to public health.

Table 3-3

Results of Screening Level Risk Analysis

Prioritization Calculator							
Applicability	Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in gray areas.						
Author or updater	Ray Kapahi		*Last Update*	June 24, 2022			
Facility:	Tudor Road Re-Zone, Sutter County, CA						
ID#:	Based on 0.034 lbs/yr of On-Site DPM						
Project #:							
Unit and Process#							
Operating Hours hr/yr	8,760.00						
Receptor Proximity and Proximity Factors	Cancer Score	Chronic Score	Acute Score	Max Score	Receptor proximity is in meters. Priortization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.		
0< R<100 1.000	7.85E-02	1.16E-04	0.00E+00	7.85E-02			
100≤R<250 0.250	1.96E-02	2.91E-05	0.00E+00	1.96E-02			
250≤R<500 0.040	3.14E-03	4.66E-06	0.00E+00	3.14E-03			
500≤R<1000 0.011	8.64E-04	1.28E-06	0.00E+00	8.64E-04			
1000≤R<1500 0.003	2.36E-04	3.49E-07	0.00E+00	2.36E-04			
1500≤R<2000 0.002	1.57E-04	2.33E-07	0.00E+00	1.57E-04			
2000<R 0.001	7.85E-05	1.16E-07	0.00E+00	7.85E-05			
0	Enter the unit's CAS# of the substances emitted and their amounts.				Prioritzation score for each substance generated below. Totals on last row.		
Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute
Diesel engine exhaust, particulate matter (Diesel PM)	9901	3.40E-02		3.88E-06	7.85E-02	1.16E-04	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.3 Summary of Project Impacts

The result of the current analysis demonstrates that the construction and operation of the proposed truck parking yard would not any significant impact to air quality, greenhouse gas or public health. For all categories of impacts, the emissions are well below significance criteria set forth by the FRAQMD and Sutter County. No further analysis is needed.

SECTION 4: REFERENCES

CalEEMod (2020): California Emissions Estimator Model. Information available at: http://www.caleemod.com/

CAPCOA (2008). CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to CEQA. January 2008.

CARB (2018): "Miscellaneous Process Methodology 7.9 – Entrained Road Travel, Paved Road Dust", March 2018. Available at: https://ww3.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2018.pdf

FAQMD (2010): "Thresholds of Significance", Chapter 3, Indirect Source Review Guidelines", June 7, 2010. Available at: https://www.fraqmd.org/ceqa-planning

Sutter County (2016): "Greenhouse Gas Pre-Screening Measures for Sutter County", Adopted by the Board of Supervisors June 28, 2016.

APPENDIX 1

Calculation of Emissions from Construction and Operational Phases

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Tudor Road Re-Zone

Sutter County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	61
Climate Zone	3			**Operational Year**	2022
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No Demolition
Minimal Grading, No Trenchong, No Building Construction

Off-road Equipment - Minimal Grading

Grading - Max 1 acre to be graded

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	10.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	5.00	3.00
tblConstructionPhase	NumDays	1.00	2.00
tblConstructionPhase	PhaseEndDate	7/18/2022	7/11/2022
tblConstructionPhase	PhaseEndDate	7/4/2022	2/14/2022
tblConstructionPhase	PhaseEndDate	2/9/2022	3/31/2022
tblConstructionPhase	PhaseEndDate	2/14/2022	4/18/2022
tblConstructionPhase	PhaseEndDate	7/11/2022	4/22/2022
tblConstructionPhase	PhaseEndDate	2/10/2022	4/4/2022
tblConstructionPhase	PhaseStartDate	1/27/2022	4/1/2022
tblConstructionPhase	PhaseStartDate	2/11/2022	4/15/2022
tblConstructionPhase	PhaseStartDate	7/5/2022	4/20/2022
tblConstructionPhase	PhaseStartDate	2/10/2022	4/1/2022
tblGrading	AcresOfGrading	1.50	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	4.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.5868	12.0213	7.5960	0.0147	5.1125	0.5562	5.6301	2.5574	0.5184	3.0336	0.0000	1,425.8505	1,425.8505	0.4432	3.6900e-003	1,437.4192
Maximum	**1.5868**	**12.0213**	**7.5960**	**0.0147**	**5.1125**	**0.5562**	**5.6301**	**2.5574**	**0.5184**	**3.0336**	**0.0000**	**1,425.8505**	**1,425.8505**	**0.4432**	**3.6900e-003**	**1,437.4192**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.5868	12.0213	7.5960	0.0147	5.1125	0.5562	5.6301	2.5574	0.5184	3.0336	0.0000	1,425.8505	1,425.8505	0.4432	3.6900e-003	1,437.4192
Maximum	**1.5868**	**12.0213**	**7.5960**	**0.0147**	**5.1125**	**0.5562**	**5.6301**	**2.5574**	**0.5184**	**3.0336**	**0.0000**	**1,425.8505**	**1,425.8505**	**0.4432**	**3.6900e-003**	**1,437.4192**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0237	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0237**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0237	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0237**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/1/2022	3/31/2022	5	0	
2	Site Preparation	Site Preparation	4/1/2022	4/4/2022	5	2	
3	Grading	Grading	4/15/2022	4/18/2022	5	2	
4	Building Construction	Building Construction	2/15/2022	2/14/2022	5	0	
5	Paving	Paving	4/20/2022	4/22/2022	5	3	
6	Architectural Coating	Architectural Coating	7/12/2022	7/11/2022	5	0	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1

Acres of Paving: 1

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,614 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	18.00	7.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367		942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**		**942.5179**	**942.5179**	**0.3048**		**950.1386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0185	0.0104	0.1559	3.8000e-004	0.0411	2.0000e-004	0.0413	0.0109	1.9000e-004	0.0111		38.1442	38.1442	1.1100e-003	1.0300e-003	38.4776
Total	**0.0185**	**0.0104**	**0.1559**	**3.8000e-004**	**0.0411**	**2.0000e-004**	**0.0413**	**0.0109**	**1.9000e-004**	**0.0111**		**38.1442**	**38.1442**	**1.1100e-003**	**1.0300e-003**	**38.4776**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367	0.0000	942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**	**0.0000**	**942.5179**	**942.5179**	**0.3048**		**950.1386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0185	0.0104	0.1559	3.8000e-004	0.0411	2.0000e-004	0.0413	0.0109	1.9000e-004	0.0111		38.1442	38.1442	1.1100e-003	1.0300e-003	38.4776
Total	**0.0185**	**0.0104**	**0.1559**	**3.8000e-004**	**0.0411**	**2.0000e-004**	**0.0413**	**0.0109**	**1.9000e-004**	**0.0111**		**38.1442**	**38.1442**	**1.1100e-003**	**1.0300e-003**	**38.4776**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.0468	0.0000	5.0468	2.5399	0.0000	2.5399			0.0000			0.0000
Off-Road	1.0832	12.0046	5.9360	0.0141		0.5173	0.5173		0.4759	0.4759		1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**1.0832**	**12.0046**	**5.9360**	**0.0141**	**5.0468**	**0.5173**	**5.5641**	**2.5399**	**0.4759**	**3.0158**		**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0296	0.0166	0.2494	6.0000e-004	0.0657	3.2000e-004	0.0660	0.0174	3.0000e-004	0.0177		61.0307	61.0307	1.7800e-003	1.6400e-003	61.5642
Total	**0.0296**	**0.0166**	**0.2494**	**6.0000e-004**	**0.0657**	**3.2000e-004**	**0.0660**	**0.0174**	**3.0000e-004**	**0.0177**		**61.0307**	**61.0307**	**1.7800e-003**	**1.6400e-003**	**61.5642**

Tudor Road Re-Zone - Sutter County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.0468	0.0000	5.0468	2.5399	0.0000	2.5399			0.0000			0.0000
Off-Road	1.0832	12.0046	5.9360	0.0141		0.5173	0.5173		0.4759	0.4759	0.0000	1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**1.0832**	**12.0046**	**5.9360**	**0.0141**	**5.0468**	**0.5173**	**5.5641**	**2.5399**	**0.4759**	**3.0158**	**0.0000**	**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0296	0.0166	0.2494	6.0000e-004	0.0657	3.2000e-004	0.0660	0.0174	3.0000e-004	0.0177		61.0307	61.0307	1.7800e-003	1.6400e-003	61.5642
Total	**0.0296**	**0.0166**	**0.2494**	**6.0000e-004**	**0.0657**	**3.2000e-004**	**0.0660**	**0.0174**	**3.0000e-004**	**0.0177**		**61.0307**	**61.0307**	**1.7800e-003**	**1.6400e-003**	**61.5642**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758		1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.8733					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5203**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**		**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0666	0.0374	0.5612	1.3600e-003	0.1479	7.3000e-004	0.1486	0.0392	6.7000e-004	0.0399		137.3190	137.3190	4.0000e-003	3.6900e-003	138.5193
Total	**0.0666**	**0.0374**	**0.5612**	**1.3600e-003**	**0.1479**	**7.3000e-004**	**0.1486**	**0.0392**	**6.7000e-004**	**0.0399**		**137.3190**	**137.3190**	**4.0000e-003**	**3.6900e-003**	**138.5193**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758	0.0000	1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.8733					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5203**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**	**0.0000**	**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0666	0.0374	0.5612	1.3600e-003	0.1479	7.3000e-004	0.1486	0.0392	6.7000e-004	0.0399		137.3190	137.3190	4.0000e-003	3.6900e-003	138.5193
Total	**0.0666**	**0.0374**	**0.5612**	**1.3600e-003**	**0.1479**	**7.3000e-004**	**0.1486**	**0.0392**	**6.7000e-004**	**0.0399**		**137.3190**	**137.3190**	**4.0000e-003**	**3.6900e-003**	**138.5193**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.491726	0.046816	0.174288	0.165875	0.042775	0.009340	0.015448	0.021765	0.000361	0.000000	0.026038	0.001433	0.004134

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0237	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.0237	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.3000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0154					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.0237**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.3000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0154					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.0237**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX 2

Trip Generation Report

Source: K. D. Anderson, Inc. (January 21, 2022)

Project Travel Characteristics

Type of Operation. The operational characteristics of the project have been identified in terms of the amount of truck activity and the time periods of that travel. Typically, trucking operations fall into two categories: "Long haul" or "Local Distribution or Agricultural Harvesting / Processing support". For long haul trucks the typical routine sees drivers away from the site for extended periods of time. Most trucks return to the site on Friday and leave early Sunday or Monday, and most drivers try to operate outside peak traffic hours. During the week some trucks may come and go for inspection or maintenance or if the drivers have to come home during the week. Alternatively, local based trucking typically leaves the site each weekday and returns that afternoon /evening. In each case, a driver would travel by automobile to and from the site before beginning or ending his trips. Some of the truck drivers would park their personal auto at the site and others would be dropped off.

The project proponents report that long haul trucking is anticipated.

Trip Generation. The project's trip generation was estimated based on available resources and our understanding of the characteristics of these uses. We have assumed that all of the trucks are long haul.

Long haul truck trip generation rates were developed from 24-hr truck traffic counts at a large (440 spaces) truck parking area in Yuba City. That site generated 334 total truck trips (143 in and 191 out) on a Thursday, or 7.6 daily truck trips per 10 spaces. It was assumed that drivers would generate automobile trips at the same time that trucks entered and exited and that ½ of the drivers would be dropped off / picked up.

The project results in the daily and peak hour trip generation forecasts presented in Table 1. As shown, 2 trips are projected in the a.m. and p.m. peak hours, while the project is projected to generate 40 daily trips. Of the total, 16 trips would be long haul trucks.

TABLE 1

PROJECT TRIP GENERATION

Unit	Unit	Quantity	Trucks			Automobiles			Total		
			In	Out	Total	In	Out	Total	In	Out	Total
A.M. Peak Hour											
Long Haul	10 spaces	1 All	8%	92%	0.55	64%	36%	0.82	42%	58%	1.36
Proposed	**21 spaces**	**2.1**	**0**	**1**	**1**	**1**	**1**	**2**	**1**	**2**	**3**
P.M. Peak Hour											
Long Haul	10 spaces	1	71%	29%	0.55	43%	57%	0.82	54%	46%	1.36
Proposed	**21 spaces**	**2.1**	**1**	**0**	**1**	**1**	**2**	**2**	**2**	**1**	**3**
Daily											
Long Haul	10	1	50%	50%	7.64	50%	50%	11.45	50%	50%	19.10
Proposed	**21 spaces**	**2.1**			**16**			**24**			**40**

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APPENDIX C
ENVIRONMENTAL NOISE ANALYSIS

Noise Impact Assessment

1777 Tudor Road Project

Sutter County, California

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July 2022

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
CNEL	Community Noise Equivalent Level
County	Sutter County
dB	Decibel
dBA	Decibel is A-weighted
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
ITE	Institute of Transportation Engineers
L_{eq}	Measure of ambient noise
OPR	Office of Planning and Research
OSHA	Federal Occupational Safety and Health Administration
PPV	Peak particle velocity
Project	1777 Tudor Road Project
RMS	Root mean square
SR	State Route
WEAL	Western Electro-Acoustic Laboratory, Inc.

1.0 INTRODUCTION

This report documents the results of a Noise Impact Assessment completed for the 1777 Tudor Road Project (Project), which proposes the development of a 1.33-acre site which would employ a use permit to allow for a Light Industrial (M-1) use. The M-1 zoning district accommodates the development of a small truck yard in Sutter County, California. This assessment was prepared as a comparison of predicted Project noise levels to noise standards promulgated by the Sutter County General Plan and Municipal Code. The purpose of this report is to estimate Project-generated noise levels and to determine the level of impact the Project would have on the environment.

1.1 Project Location and Description

The Project Site is located in Sutter County (County) on two parcels that total 1.33-acres. The rectangular shaped site is generally bound by agricultural land to the north, residences to the east, State Route (SR) 113 to the south, with agricultural land and residences beyond, and Burch Road to the west. The Project is proposing the development of a small truck yard that would service long-haul and local distribution or agricultural harvesting/ processing support. The Project Site is relatively flat and currently accommodates two existing metal structures, one of which is proposed for demolition while the other would be retrofitted and used for the Project. Additionally, the Project Site would be repaved to accommodate twenty-one heavy-duty truck parking spaces.

The Project Site is currently zoned Agriculture (AG) but is proposing a use permit to allow a M-1 use. M-1 zoning is intended to provide for a full range of lower intensity manufacturing, assembly, processing, fabrication, bulk handling of products, storage, warehousing, and other similar uses conducted in a fashion that minimizes visual and operational impacts on adjoining uses. M-1 uses are to be compatible when operating in relatively close proximity to residential and commercial uses (Sutter County 2021).

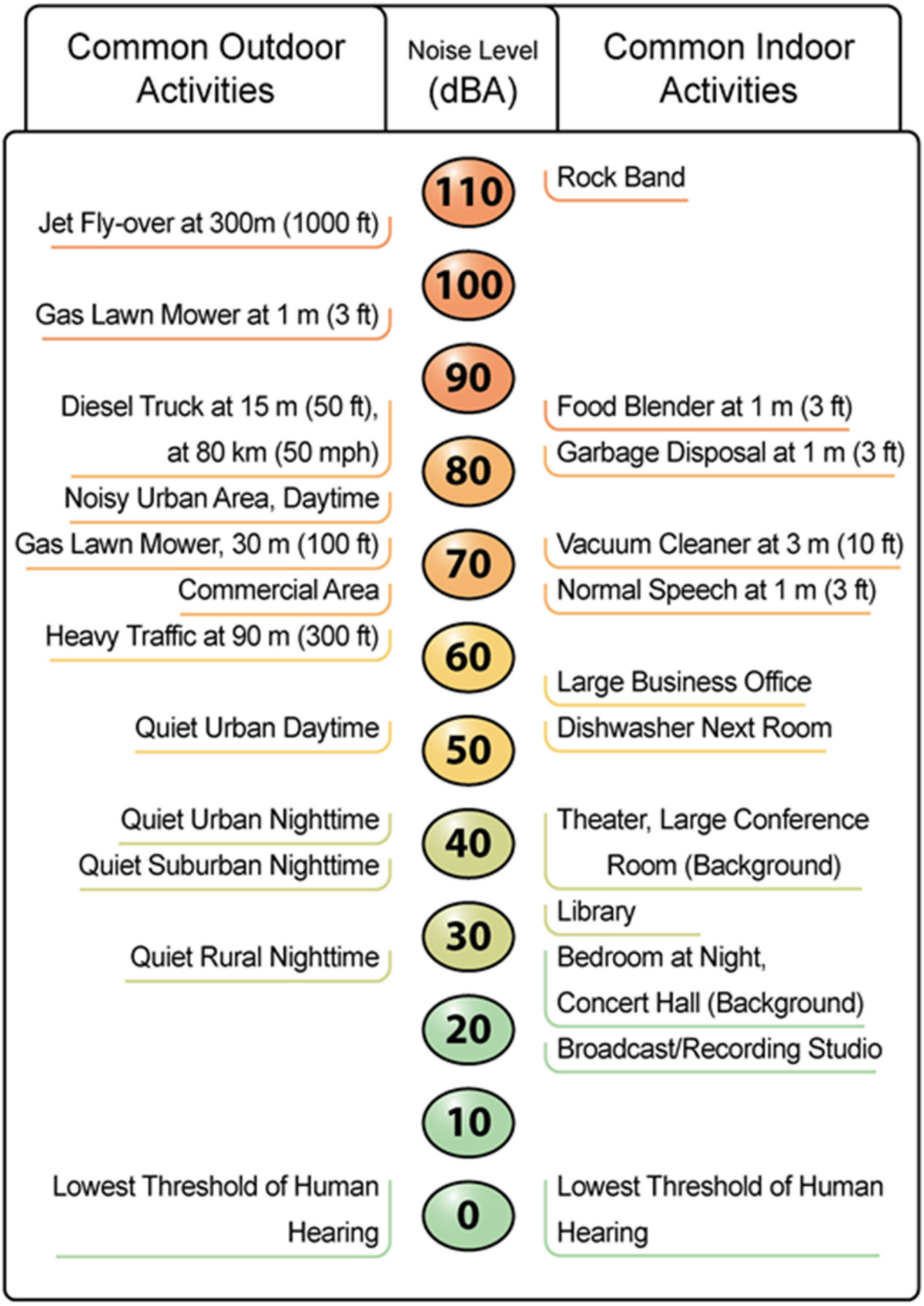
2.0 ENVIRONMENTAL NOISE AND GROUNDBORNE VIBRATION ANALYSIS

2.1 Fundamentals of Noise and Environmental Sound

2.1.1 Addition of Decibels

The decibel (dB) scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted (dBA), an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be three dB higher than one source under the same conditions (Federal Transit Administration [FTA] 2018). For example, a 65-dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by three dB). Under the decibel scale, three sources of equal loudness together would produce an increase of five dB.

Typical noise levels associated with common noise sources are depicted in Figure 2-1.



Source: California Department of Transportation (Caltrans) 2020a

Figure 2-1. Common Noise Levels

2.1.2 Sound Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately six dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately three dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2011). No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of three dB per doubling of distance is assumed (FHWA 2011).

Noise levels may also be reduced by intervening structures; generally, a single row of detached buildings between the receptor and the noise source reduces the noise level by about five dBA (FHWA 2006), while a solid wall or berm generally reduces noise levels by 10 to 20 dBA (FHWA 2011). However, noise barriers or enclosures specifically designed to reduce site-specific construction noise can provide a sound reduction 35 dBA or greater (Western Electro-Acoustic Laboratory, Inc. [WEAL] 2000). To achieve the most potent noise-reducing effect, a noise enclosure/barrier must physically fit in the available space, must completely break the “line of sight” between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. Noise barriers must be sizable enough to cover the entire noise source and extend lengthwise and vertically as far as feasibly possible to be most effective. The limiting factor for a noise barrier is not the component of noise transmitted through the material, but rather the amount of noise flanking around and over the barrier. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver.

The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). The exterior-to-interior reduction of newer residential units is generally 30 dBA or more (Harris Miller, Miller & Hanson Inc. [HMMH] 2006). Generally, in exterior noise environments ranging from 60 dBA Community Noise Equivalent Level (CNEL) to 65 dBA CNEL, interior noise levels can typically be maintained below 45 dBA, a typically residential interior noise standard, with the incorporation of an adequate forced air mechanical ventilation system in each residential building, and standard thermal-pane residential windows/doors with a minimum rating of Sound Transmission Class (STC) 28. (STC is an integer rating of how well a building partition attenuates airborne sound. In the U.S., it is widely used to rate interior partitions, ceilings, floors, doors, windows, and exterior wall configurations.) In exterior noise environments of 65 dBA CNEL or greater, a combination of forced-air mechanical ventilation and sound-rated construction methods is often required to meet the interior noise level limit. Attaining the necessary noise reduction from exterior to interior spaces is readily achievable in noise environments less than 75 dBA CNEL with proper wall construction techniques following California Building Code methods, the selections of proper windows and doors, and the incorporation of forced-air mechanical ventilation systems.

2.1.3 Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL (Community Noise Equivalent Level) are measures of community noise. Each is applicable to this analysis and defined in Table 2-1.

Table 2-1. Common Acoustical Descriptors

Descriptor	Definition
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average acoustic energy content of noise for a stated period of time. Thus, the Leq of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	A 24-hour average Leq with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour Leq would result in a measurement of 66.4 dBA Ldn.
Community Noise Equivalent Level, CNEL	A 24-hour average Leq with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour Leq would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.

The A weighted decibel sound level scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a

method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about ±1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends on the distance between the receptor and the noise source. Close to the noise source, the models are accurate to within about ±1 to 2 dBA.

2.1.4 Human Response to Noise

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

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

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

2.1.5 Effects of Noise on People

2.1.5.1 Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The Occupational Safety and Health Administration (OSHA) has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

2.1.5.2 Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources.

2.2 Fundamentals of Environmental Groundborne Vibration

2.2.1 Vibration Sources and Characteristics

Sources of earthborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or manmade causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage. For human response, however, an average vibration amplitude is more appropriate because it takes time for the human body to respond to the excitation (the human body responds to an average vibration amplitude, not a peak amplitude). Because the average particle velocity over time is zero, the RMS amplitude is typically used to assess human response. The RMS value is the average of the amplitude squared over time, typically a 1- sec. period (FTA 2018).

Table 2-2 displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high-noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. For instance, heavy-duty trucks generally generate groundborne vibration velocity levels of 0.006 PPV at 50 feet under typical circumstances, which as identified in Table 2-2 is considered very unlikely to cause damage to buildings of any type. Common sources for groundborne vibration are planes, trains, and construction activities such as earth-moving which requires the use of heavy-duty earth moving equipment.

Table 2-2. Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibration Levels

Peak Particle Velocity (inches/second)	Approximate Vibration Velocity Level (VdB)	Human Reaction	Effect on Buildings
0.006–0.019	64–74	Range of threshold of perception	Vibrations unlikely to cause damage of any type
0.08	87	Vibrations readily perceptible	Recommended upper level to which ruins and ancient monuments should be subjected
0.1	92	Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities	Virtually no risk of architectural damage to normal buildings
0.2	94	Vibrations may begin to annoy people in buildings	Threshold at which there is a risk of architectural damage to normal dwellings
0.4–0.6	98–104	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Architectural damage and possibly minor structural damage

Source: Caltrans 2020b

3.0 EXISTING ENVIRONMENTAL NOISE SETTING

3.1 Noise Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as hospitals, historic sites, cemeteries, and certain recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The nearest existing noise-sensitive land use to the Project Site is a residential property directly adjacent to the eastern Project Site boundary.

3.2 Existing Ambient Noise Environment

Sutter County contains extensive agricultural land uses along with a range of residential, industrial, commercial, recreational, and open space areas. Key noise sources in the County include motor vehicle traffic, agricultural activities, airplane traffic, railroads, and stationary sources such as food processing plants. The Project Site is surrounded mainly by rural agricultural lands and rural residencies. SR 113 traverses and provides access to the Project Site and is also the main source of noise in the Project Area. The Transportation and Circulation Element of the County's General Plan Environmental Impact Report classifies SR 113 as an expressway within the County. Expressways serve both inter-regional and intraregional circulation needs and have the highest carrying capacity with the maximum speed limits allowed by law.

Per the California Department of Transportation (Caltrans) traffic counts, the segment of SR 113 traversing the Project Area (the segment of SR 113 between George Washington Boulevard and the SR 99 Junction) accommodates an average daily traffic count of 3,500 vehicles (Caltrans 2021). According to the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108), which calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions; the Project Area, as a result of roadway traffic on SR 113, has an ambient noise level of 60.7 dBA CNEL at 100 feet from the centerline. Vehicular noise varies with the volume, speed, and type of traffic. Slower traffic produces less noise than fast-moving traffic. Trucks typically generate more noise than cars. Infrequent or intermittent noise also is associated with vehicles including sirens, vehicle alarms, slamming of doors, garbage and construction vehicle activity, and honking of horns. These noises add to urban noise and are regulated by a variety of agencies.

3.2.1 Existing Ambient Noise Measurements

The Project Site currently accommodates two metal structures, one of which is proposed for demolition, and is surrounded mainly by agricultural and residential land uses. In order to quantify existing ambient noise levels in the Project Area, ECORP Consulting, Inc. conducted three short-term noise measurements on March 4, 2022. These short-term noise measurements are representative of typical existing noise

exposure within and immediately adjacent to the Project Site during the daytime (see Attachment A). The 15-minute measurements were taken between 9:52 a.m. and 10:49 a.m. The average noise levels and sources of noise measured at each location are listed in Table 3-1.

Table 3-1. Existing (Baseline) Noise Measurements

Location Number	Location	L_{eq} dBA	L_{min} dBA	L_{max} dBA	Time
1	On Burch Road Approximately 290 feet North of the Project Site	**54.3**	35.7	77.2	9:52 a.m. – 10:07 a.m.
2	On SR 133 adjacent to Hobbs Road	**67.3**	35.6	82.8	10:12 a.m. – 10:27 a.m.
3	On Schlagle Road adjacent to SR 113	**55.0**	33.4	72.1	10:34 a.m. – 10:49 a.m.

Source: Measurements were taken by ECORP with a Larson Davis SoundExpert LxT precision sound level meter, which satisfies the American National Standards Institute for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator. See Attachment A for noise measurement outputs.

Notes: L_{eq} is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. L_{min} is the minimum noise level during the measurement period and L_{max} is the maximum noise level during the measurement period.

As shown in Table 3-1, the ambient recorded daytime noise levels range from 54.3 to 67.3 dBA L_{eq} over the course of the three short-term noise measurements taken in the Project vicinity. The most common noise in the Project vicinity is produced by automotive vehicles (e.g., cars, trucks, buses, motorcycles) on SR 113.

4.0 REGULATORY FRAMEWORK

4.1 Federal

4.1.1 Occupational Safety and Health Act of 1970

OSHA regulates onsite noise levels and protects workers from occupational noise exposure. To protect hearing, worker noise exposure is limited to 90 decibels with A-weighting (dBA) over an eight-hour work shift (29 Code of Regulations 1910.95). Employers are required to develop a hearing conservation program when employees are exposed to noise levels exceeding 85 dBA. These programs include provision of hearing protection devices and testing employees for hearing loss on a periodic basis.

4.1.2 U.S. Environmental Protection Agency Office of Noise Abatement and Control

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate Federal noise control activities. In 1981, USEPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to State and local governments. However, documents and research completed by the EPA Office of Noise Abatement and Control continue to provide value in the analysis of noise effects.

4.1.3 National Institute of Occupational Safety and Health

A division of the US Department of Health and Human Services, the National Institute for Occupational Safety and Health (NIOSH) has established a construction-related noise level threshold as identified in the Criteria for a Recommended Standard: Occupational Noise Exposure prepared in 1998. NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. The intention of these thresholds is to protect people from hearing losses resulting from occupational noise exposure.

4.2 State

4.2.1 State of California General Plan Guidelines

The State of California regulates vehicular and freeway noise affecting classrooms, sets standards for sound transmission and occupational noise control, and identifies noise insulation standards and airport noise/land-use compatibility criteria. The State of California General Plan Guidelines, published by the Governor's Office of Planning and Research (OPR), also provides guidance for the acceptability of projects within specific CNEL/L_{dn} contours. The guidelines also present adjustment factors that may be used in order to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

4.2.2 State Office of Planning and Research Noise Element Guidelines

The State OPR Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL.

4.2.3 California Department of Transportation

In 2020, Caltrans published the Transportation and Construction Vibration Manual (Caltrans 2020b). The manual provides general guidance on vibration issues associated with the construction and operation of projects concerning human perception and structural damage. Table 2-2 presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

4.3 Local

4.3.1 Sutter County General Plan

The Noise Element of the General Plan provides policy direction for minimizing noise impacts on the community and for coordinating with surrounding jurisdictions and other entities regarding noise control. By identifying noise-sensitive land uses and establishing compatibility guidelines for land use and noises, noise considerations will influence the general distribution, location, and intensity of future land uses. The result is that effective land use planning and mitigation can alleviate the majority of noise problems.

The Noise Element contains goals, policies and implementation programs that are intended to achieve the vision of the Noise Element and guide the County's efforts to minimize noise-land use incompatibilities and support the health and serenity of its citizens. The General Plan goals and policies applicable to the Proposed Project are listed below.

Goal N 1: Protect the health and safety of County residents from the harmful effect of exposure to excessive noise and vibration.

Policy N 1.2: *Exterior Incremental Environmental Noise Standards*. Require new development to mitigate noise impacts on noise sensitive uses where the projected increases in exterior noise levels exceed those shown in Table 4-1 (Exterior Incremental Environmental Noise Impact Standards for Noise-Sensitive Uses [dBA]).

Table 4-1. Exterior Incremental Environmental Noise Impact Standards for Noise-Sensitive Uses (dBA)			
Residences and Buildings Where People Normally Sleep[1]		**Institutional Land Uses with Primarily Daytime and Evening Uses[2]**	
Existing L_{dn}/CNEL	**Allowable Noise Increment**	**Existing Peak Hour L_{eq}**	**Allowable Noise Increment**
45	8	45	12
50	5	50	9
55	3	55	6
60	2	60	5
65	1	65	3
70	1	70	3
75	0	75	1
80	0	80	0

Source: Sutter County 2011

Notes:

Noise levels are measured at the property line of the noise-sensitive use.

1. This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.
2. This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material.

Policy N 1.3: *Interior Noise Standards*. Require new development to mitigate noise impacts to ensure acceptable interior noise levels appropriate to the land use type as shown in Table 4-2 (Maximum Allowable Environmental Noise Standards).

Table 4-2. Maximum Allowable Environmental Noise Standards			
Land Use	**Exterior Noise Level Standard for Outdoor Activity Areas[1]**	**Interior Noise Level Standard**	
	L_{dn}/CNEL, dB	**L_{dn}/CNEL, dB**	**L_{eq}, dB[2]**
Residential (Low Density Residential, Duplex, Mobile Homes)	60[3]	45	N/A
Residential (Multi Family)	65[4]	45	N/A
Transient Lodging (Motels/Hotels)	65[4]	45	N/A
Schools, Libraries, Churches, Hospitals, Nursing Homes, Museums	70	45	N/A
Theaters, Auditoriums	70	N/A	35
Playgrounds, Neighborhood Parks	70	N/A	N/A
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75	N/A	N/A
Office Buildings, Business Commercial and Professional	70	N/A	45
Industrial, Manufacturing, Utilities, and Agriculture	75	N/A	45

Source: Sutter County 2011

Notes: Where a proposed use is not specifically listed on this table, the use shall comply with the noise exposure standards for the nearest similar use as determined by the Community Services Department.

1. Outdoor activity areas for residential developments are considered to be the back yard patios or decks of single-family residential units, and the patios or common areas where people generally congregate for multi-family development.
   Outdoor activity areas for nonresidential developments are considered to be those common areas where people generally congregate, including outdoor seating areas.
   Where the location of outdoor activity areas is unknown, the exterior noise standard shall be applied to the property line of the receiving land use.
2. As determined for a typical worst-case hour during periods of use.
3. Where it is not possible to reduce noise in outdoor activity areas to 60 dB, L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior level of up to 65 dB, L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.
4. Where it is not possible to reduce noise in outdoor activity areas to 65 dB, L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior level of up to 70 dB, L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Policy N 1.4: *New Stationary Noise Sources.* Require new stationary noise sources to mitigate noise impacts on noise-sensitive uses wherever the noise from that source alone exceeds the exterior levels specified in Table 4-3 (Noise Level Standards from Stationary Sources).

Table 4-3. Noise Level Standards from Stationary Sources		
Noise Level Descriptor	**Daytime (7:00 a.m. to 10:00 p.m.)**	**Nighttime (10:00 p.m. to 7:00 a.m.)**
Hourly L_{eq}, dB	55	45
Maximum level, dB	70	65

Source: Sutter County 2011
Notes: Noise levels are measured at the property line of the noise-sensitive use.

Policy N 1.6: *Construction Noise.* Require discretionary projects to limit noise-generating construction activities within 1,000 feet of noise-sensitive uses (i.e., residential uses, daycares, schools, convalescent homes, and medical care facilities) to daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays, 8:00 a.m. and 5:00 p.m. on Saturdays, and prohibit construction on Sundays and holidays unless permission for the latter has been applied for and granted by the County.

Policy N 1.7: *Vibration Standards.* Require construction projects and new development anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby noise-sensitive uses based on Federal Transit Administration criteria as shown in Table 4-4 (Groundborne Vibration Impact Criteria for General Assessment).

Table 4-4. Groundborne Vibration Impact Criteria for General Assessment			
Land Use Category	**Impact Levels (VdB)**		
	Frequent Events[1]	**Occasional Events[2]**	**Infrequent Events[3]**
Category 1: Buildings where vibration would interfere with interior operations	65[4]	65[4]	65[4]
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime uses	75	78	83

Source: Sutter County 2011
Notes: Vibration levels are measured in or near the vibration-sensitive use.

1. "Frequent Events" is defined as more than 70 vibration events of the same source per day.
2. Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.
3. "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.
4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels.

4.3.2 Sutter County Municipal Code

The County regulations with respect to noise are also included in Article 21.5, *Noise Control*, of the County's Municipal Code. The regulations presented in this Municipal Code are the same as those listed above.

5.0 IMPACT ASSESSMENT

5.1 Thresholds of Significance

The impact analysis provided below is based on the following California Environmental Quality Act Guidelines Appendix G thresholds of significance. The Project would result in a significant noise-related impact if it would produce:

1) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

2) Generation of excessive groundborne vibration or groundborne noise levels.

3) 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.

For purposes of this analysis, the County noise standards were used for evaluation of Project-related noise impacts.

5.2 Methodology

This analysis of the existing and future noise environments is based on noise-prediction modeling and empirical observations. In order to estimate the worst-case construction noise levels that may occur at the nearest noise-sensitive receptors in the Project vicinity, predicted construction noise levels were calculated utilizing the FHWA's Roadway Construction Noise Model (2006). Groundborne vibration levels associated with construction-related activities for the Project were evaluated utilizing typical groundborne vibration levels associated with construction equipment. Potential groundborne vibration impacts related to structural damage and human annoyance were evaluated, taking into account the distance from construction activities to nearby structures.

An assessment of the Project's impact on the existing noise environment was completed by conducting existing ambient baseline noise measurements around the Project Site with the use of a Larson Davis SoundExpert LxT precision sound level meter, which satisfies the American National Standards Institute standard for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator. Additionally, onsite stationary source noise levels have been calculated with the SoundPLAN 3D noise model, which predicts noise propagation from a noise source based on the location, noise level, and frequency spectra of the noise sources as well as the geometry and reflective properties of the local terrain, buildings and barriers. In the analysis below the size, location and noise producing level of each source is discussed in detail. The Project's contribution to roadway noise levels is discussed qualitatively with operational daily trips counts provided by KD Anderson & Associates, Inc. (2022).

5.3 Impact Analysis

5.3.1 Would the Project Result in Short-Term Construction-Generated Noise in Excess of Standards?

Onsite Construction Noise

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

Nearby noise-sensitive land uses consist of a residential property directly adjacent to the eastern Project Site boundary. As previously described, the County limits all noise associated with construction within 1,000 feet of a noise-sensitive uses to daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays, 8:00 a.m. and 5:00 p.m. on Saturdays, and prohibits construction on Sundays and holidays unless permission has been applied for and granted by the County. It is typical to regulate construction noise with time limits as opposed to numeric noise thresholds since construction noise is temporary, short term, intermittent in nature, and would cease on completion of the Project. Furthermore, construction would occur through the Project Site and would not be concentrated at one point.

To estimate the worst-case onsite construction noise levels that may occur at the nearest noise-sensitive receptor in the Project vicinity in order to evaluate the potential health-related effects (physical damage to the ear) from construction noise, the construction equipment noise levels were calculated using the Roadway Noise Construction Model and compared against the construction-related noise level threshold established in the *Criteria for a Recommended Standard: Occupational Noise Exposure* prepared in 1998 by National Institute for Occupational Safety and Health (NIOSH). A division of the US Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. For the purposes of this analysis, the lowest, more conservative threshold of 85 dBA L_{eq} is used as an acceptable threshold for construction noise at the nearby sensitive receptors.

The anticipated short-term construction noise levels generated for the necessary equipment were calculated using the Roadway Noise Construction Model for the demolition, site preparation, grading, paving and painting anticipated for the Proposed Project. It is acknowledged that the majority of construction equipment is not situated at any one location during construction activities, but rather spread throughout the Project Site and at various distances from sensitive receptors. Therefore, this analysis employs Federal Transit Administration (FTA) guidance for calculating construction noise, which recommends measuring construction noise produced by all construction equipment operating simultaneously from the center of the construction site (FTA 2018), which in this case is approximately 100 feet distant from the nearest sensitive receptors to the east. The anticipated short-term construction noise levels generated for the necessary equipment is presented in Table 5-1.

Table 5-1. Construction Average (dBA) Noise Levels at Nearest Receptor- Project Site			
Equipment	**Estimated Exterior Construction Noise Level at Nearest Residences**	**Construction Noise Standards (dBA L_{eq})**	**Exceeds Standards?**
Demolition			
Concrete/Industrial Saws (1)	76.6	*85*	**No**
Rubber Tired Dozers (1)	71.1	*85*	**No**
Tractors/Loaders/Backhoes (3)	74.0 (each)	*85*	**No**
Combined Demolition Equipment	**81.3**	*85*	**No**
Site Preparation			
Graders (1)	75.0	*85*	**No**
Rubber Tired Dozers (1)	71.1	*85*	**No**
Tractors/Loaders/Backhoes (1)	74.0	*85*	**No**
Combined Site Preparation Equipment	**78.5**	*85*	**No**
Grading			
Graders (1)	75.0	*85*	**No**
Rubber Tired Dozers (1)	71.1	*85*	**No**
Tractors/Loaders/Backhoes (2)	74.0 (each)	*85*	**No**
Combined Grading Equipment	**79.8**	*85*	**No**
Paving			
Cement and Mortar Mixers (1)	68.8	*85*	**No**
Pavers (1)	68.2	*85*	**No**
Paving Equipment (1)	68.2	*85*	**No**
Rollers (1)	67.0	*85*	**No**
Tractors/Loaders/Backhoes (1)	74.0	*85*	**No**
Combined Paving Equipment	**77.1**	*85*	**No**
Painting			
Air Compressors (1)	67.7	*85*	**No**
Combined Paining Equipment	**67.7**	*85*	**No**

Source: Construction noise levels were calculated by ECORP Consulting using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Attachment B for Model Data Outputs.

Notes: Construction equipment used during construction derived from the California Emission Estimator Model (CalEEMod) 2020.4.0. CalEEMod contains default construction equipment and usage parameters for typical construction projects based on several construction surveys conducted in order to identify such parameters. Consistent with FTA recommendations for calculating construction noise, construction noise was measured from the center of the Project Site (FTA 2018), which is 100 feet from the nearest residence.

L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time.

As shown in Table 5-1, during construction activities no individual piece of construction equipment would exceed the NIOSHA threshold of 85 dBA L_{eq} at the nearest residence located directly east of the Project Site.

Offsite Construction Worker Traffic Noise

Project construction would result in additional traffic on adjacent roadways over the period that construction occurs. According to the California Emission Estimator Model, which is used to predict the number of on-road Project construction-related trips, Project construction would not instigate more than 56 trips in a single day (26 construction worker trips and 30 haul truck trips). According to the Caltrans *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (2013), doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference). The Project Site is accessible from SR 113. Per Caltrans traffic counts, the segment of SR 113 traversing the Project Area (the segment of SR 113 between George Washington Boulevard and the SR 99 Junction) currently accommodates an average daily traffic count of 3,500 vehicles (Caltrans 2021). Thus, the Project construction would not result in a doubling of traffic, and therefore its contribution to existing traffic noise would not be perceptible. Additionally, it is noted that construction is temporary, and these trips would cease upon completion of the Project.

5.3.2 Would the Project Result in a Substantial Permanent Increase in Ambient Noise Levels in Excess of City Standards During Operations?

As previously described, noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise-sensitive and may warrant unique measures for protection from intruding noise. The nearest existing noise-sensitive land uses to the Project Site is residential property directly adjacent to the eastern Project Site boundary. However, there are numerous other rural residential properties in the Project Area.

Operational noise sources associated with the Proposed Project include several onsite sources (i.e., backup beepers, internal circulation/ parking lot activity).

Operational Offsite Traffic Noise

Project operation would also result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the Project vicinity. According to the Tudor Road Trip Generation Analysis prepared by KD Anderson (2022), the Project is projected to generated 38 daily trips. The Project Site would be accessible from SR 113. As previously described, SR 113 is classified as an expressway within the County and has a high carrying capacity for inter-regional and intraregional circulation needs. According to the Caltrans *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (2013), doubling of traffic on a roadway would result in an increase of 3 dB (a barely perceptible increase). Per Caltrans traffic counts, the segment of SR 113 traversing the Project Area (the segment of SR 113 between George Washington Boulevard and the SR 99 Junction) accommodates an average daily traffic count of 3,500 vehicles (Caltrans 2021). Therefore, the Project would not result in a doubling of traffic, thus its contribution to existing traffic noise would not be perceptible.

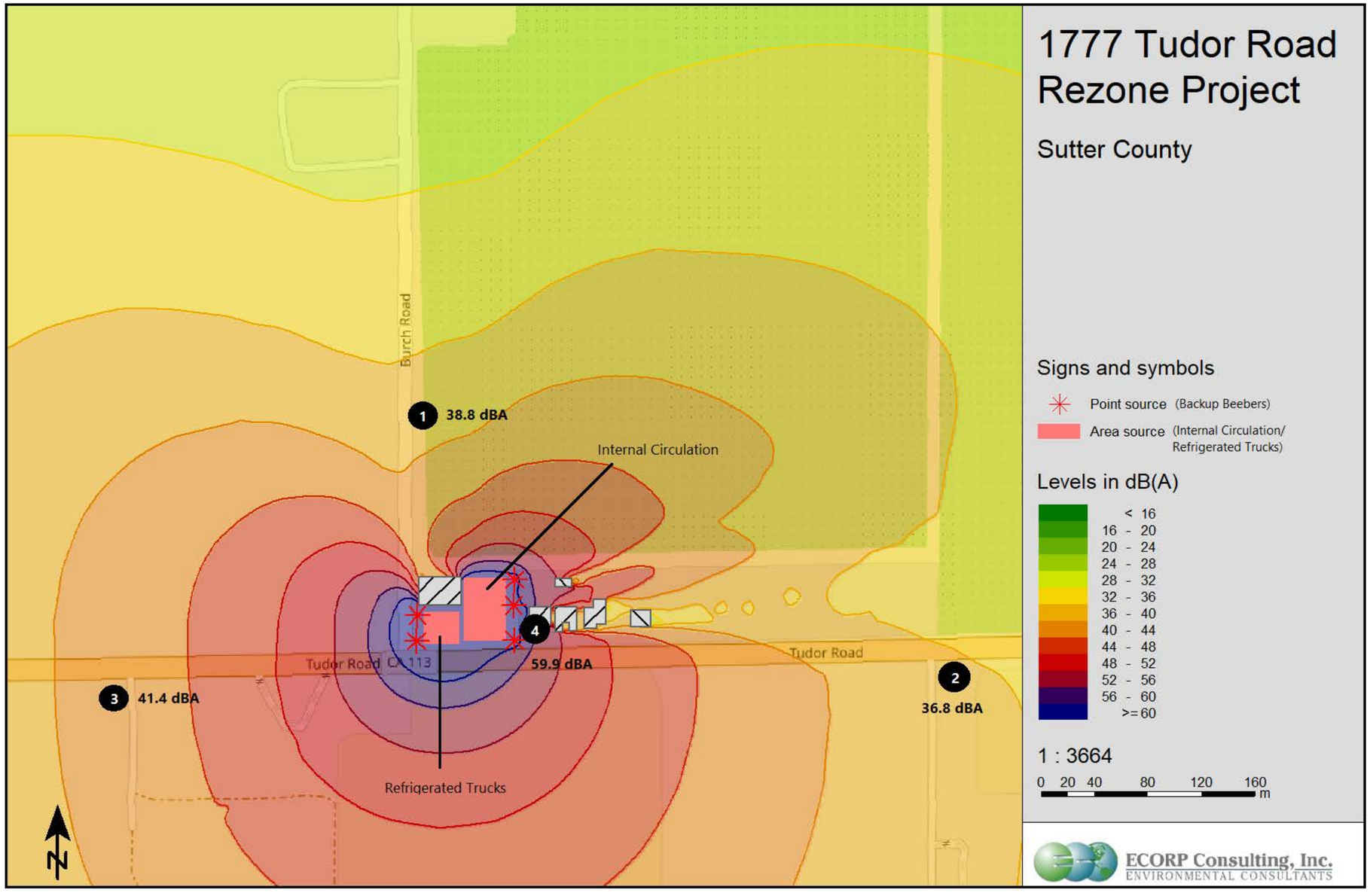
Operational Onsite Stationary Noise

The main stationary operational noise associated with the Project would be activities occurring on the Project Site. Such activity would include internal heavy duty truck circulation/ parking lot activity (i.e., people talking, car door opening and closing and stereo music), the engine and ventilator from refrigerated trucks and backup beepers from heavy duty trucks. On-site Project operations have been calculated using the SoundPLAN 3D noise model. The results of this model can be found in Attachment C. Table 5-2 shows the predicted Project noise levels at four locations in the Project vicinity, as predicted by SoundPLAN. Three of these locations (Site Locations 1 - 3) correspond with the locations where existing baseline noise measurements were taken (see Table 3-1), while the additional location correlates with the nearest noise sensitive receptor relative to the Project Site, which will be affected by Project operations. Additionally, a noise contour graphic (see Figure 5-1) has been prepared to provide a visual depiction of the predicted noise levels in the Project vicinity from Project operations.

Table 5-2. Modeled Operational Noise Levels

Site Location	Location	Modeled Operational Noise Attributed to Project (L_{eq} dBA)	County Noise Standard Day/Night (L_{eq} dBA)
1	On Burch Road Approximately 290 Feet North of the Project Site	38.8	*55/45*
2	On SR 133 Adjacent to Hobbs Road	36.8	*55/45*
3	On Schlagle Road Adjacent to SR 113	41.4	*55/45*
4	Residence Directly East of Project Site	59.9	*55/45*

Source: Stationary source noise levels were modeled by ECORP Consulting using SoundPLAN 3D noise model. Refer to Attachment C for noise modeling assumptions and results.



Map Date: *6/1/2022*
Photo (or Base) Source: *SoundPLAN*

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Figure 5-1. Onsite Project Noise

2022-048

As shown in Table 5-2, predicted Project noise levels would range from 36.8 to 59.9 dBA L_{eq} during Project operations. The loudest noise levels as a result of Project onsite operations would occur at the nearest noise sensitive receptor, Site Location 4. This residence would have the potential to experience Project noise as high as 59.9 dBA L_{eq} during some Project activities.

As shown in Table 4-3, the Sutter County Noise Level Standards from Stationary Sources is 55 dBA L_{eq} during daytime activities (7:00 a.m.-10:00 p.m.) and 45 dBA L_{eq} for nighttime activities (10:00 p.m.-7:00 a.m.). The Project is proposing to operate 24-hours a day, seven days a week. As shown, the noise level at the nearest noise sensitive receptor, located directly east of the Project Site, exceeds the County's daytime and nighttime noise standards. However, as previously described, SR 113 traverses the Project Site and is the main noise producing source in the Project Area. According to the calculations modeled from the existing traffic on SR 113 coupled with the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108), which calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions, the Project Area currently has an ambient noise level of 60.7 dBA CNEL at 100 feet from the centerline as a result of roadway traffic on SR 113 under existing conditions. Thus, the noise sensitive receptors in the Project Area already experience noise levels in excess of the predicted onsite Project noise sources and the Project's contribution to the noise environment would not be readily perceivable. Additionally, it is noted that the modeled noise levels identified are a worst-case scenario. Not all events taking place on the Project Site would generate as much noise as predicted.

5.3.3 Would the Project Expose Structures to Substantial Groundborne Vibration During Construction?

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

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. It is noted that pile drivers would not be necessary during Project construction. Vibration decreases rapidly with distance and it is acknowledged that construction activities would occur throughout the Project Site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment at 25 feet distant are summarized in Table 5-3.

Table 5-3. Representative Vibration Source Levels for Construction Equipment	
Equipment Type	**Approximate Vibration Decibels (VdB) at 25 Feet**
Large Bulldozer	87
Caisson Drilling	87
Loaded Trucks	86
Hoe Ram	87
Jackhammer	79
Small Bulldozer/Tractor	58

Source: FTA 2018; Caltrans 2020b

The County's construction vibration threshold requires construction projects and new development anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby noise-sensitive uses using the standards presented in Table 4-4 of this document. These standards are based on criteria from the FTA. The nearest existing noise-sensitive land use to the Project Site is a residential property directly adjacent to the eastern Project Site boundary. Thus, due to the temporary nature of construction activities, the thresholds for Land Use Category 2, residences and buildings where people normally sleep, of 80 VdB for infrequent events will be used in this analysis.

Consistent with FTA recommendations for calculating vibration generated from construction equipment, construction vibration was measured from the center of the Project Site (FTA 2018). The nearest structure of concern to the construction site is the residences located directly adjacent to the eastern Project Site boundary, approximately 100 feet from the Project Site center. As shown in Table 5-3, the highest vibration decibel at 25 feet generated from construction equipment is 87 VdB. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. Therefore, the structure located at 100 feet from the Project Site center would not be negatively affected. Project vibration levels at the nearest structure would not exceed recommended criteria.

5.3.4 Would the Project Expose Structures to Substantial Groundborne Vibration During Operations?

Project operations would not include the use of any stationary equipment that would result in excessive vibration levels. Therefore, the Project would not result in groundborne vibration impacts during operations.

5.3.5 Would the Project Expose People Residing or Working in the Project area to Excessive Airport Noise?

The Project Site is located approximately 7.5 miles northeast of the Yuba County Airport. According to the Yuba County Airport Land Use Compatibility Plan (2010), the Project Site is located outside of the 55 CNEL

Noise Contour. Thus, the Proposed Project would not expose people working on the Project Site to excess airport noise levels and would not hinder aircraft activity.

6.0 REFERENCES

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LIST OF ATTACHMENTS

Attachment A - Baseline (Existing) Noise Measurements – Project Site and Vicinity

Attachment B – Federal Highway Administration Roadway Construction Noise Model Outputs – Project Construction

Attachment C- SoundPLAN Outputs – Onsite Project Noise

ATTACHMENT A

Baseline (Existing) Noise Measurements – Project Site and Vicinity

3/10/2022

Baseline Noise Measurement Locations

171777 Tudor Road Truck Stop Project Site

1:4,514

0 0.03 0.06 0.12 mi

0 0.05 0.1 0.19 km

Esri Community Maps Contributors, California State Parks, ©

Map Date: *3/10/2022*
Photo (or Base) Source: *ArcGIS Online 2022*

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Baseline Noise Measurement Locations

2022-048 1777 Tudor Road Truck Yard

Site Number: 1			
Recorded By: Rosey Worden			
Job Number: 2022-048			
Date: 3/4/2022			
Time: 9:52 a.m. – 10:07 a.m.			
Location: On Burch Road approximately 290 feet north of the Project Site			
Source of Peak Noise: Vehicles on SR 133 and farming equipment on adjacent properties			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
54.3	35.7	77.2	101.1

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Larson Davis**	**LxT SE**	**0005120**	**11/29/2021**	
	Microphone	**Larson Davis**	**377B02**	**334361**	**11/30/2021**	
	Preamp	**Larson Davis**	**PRMLxT1L**	**042852**	**11/30/2021**	
	Calibrator	**Larson Davis**	**CAL200**	**14105**	**11/10/2021**	

Weather Data			
Est.	**Duration:** 15 min.		**Sky:** Clear
	Note: dBA Offset = -0.01		**Sensor Height (ft):** 4.5
	Wind Ave Speed (mph)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (hPa)**
	9	59	

Photo of Measurement Location

Measurement Report

Report Summary

Meter's File Name	LxT_Data.410	Computer's File Name	SLM_0005120_LxT_Data_410.00.ldbin
Meter	LxT SE		
Firmware	2.404		
User		Location	
Description			
Note			
Start Time	2022-03-04 09:52:20	Duration	0:15:00.0
End Time	2022-03-04 10:07:20	Run Time	0:15:00.0
Pause Time	0:00:00.0		

Results

Overall Metrics

LA_{eq}	54.3 dB		
LAE	83.9 dB	SEA	--- dB
EA	27.0 µPa²h		
LZ_{peak}	101.1 dB	2022-03-04 10:00:56	
LAS_{max}	77.2 dB	2022-03-04 09:57:38	
LAS_{min}	35.7 dB	2022-03-04 10:03:26	
LA_{eq}	54.3 dB		
LC_{eq}	63.6 dB	LC_{eq} - LA_{eq}	9.3 dB
LAI_{eq}	58.7 dB	LAI_{eq} - LA_{eq}	4.4 dB

Exceedances	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZpeak > 135.0 dB	0	0:00:00.0
LZpeak > 137.0 dB	0	0:00:00.0
LZpeak > 140.0 dB	0	0:00:00.0

Community Noise	LDN	LDay	LNight
	54.3 dB	54.3 dB	0.0 dB

	LDEN	LDay	LEve	LNight
	54.3 dB	54.3 dB	--- dB	--- dB

Any Data	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	54.3 dB		63.6 dB		--- dB	
$Ls_{(max)}$	77.2 dB	2022-03-04 09:57:38	--- dB		--- dB	
$LS_{(min)}$	35.7 dB	2022-03-04 10:03:26	--- dB		--- dB	
$L_{Peak(max)}$	--- dB		--- dB		101.1 dB	2022-03-04 10:00:56

Overloads	Count	Duration	OBA Count	OBA Duration
	0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	50.2 dB
LAS 10.0	47.1 dB
LAS 33.3	44.3 dB
LAS 50.0	42.9 dB
LAS 66.6	41.7 dB
LAS 90.0	39.6 dB

Site Number: 2			
Recorded By: Rosey Worden			
Job Number: 2022-048			
Date: 3/4/2022			
Time: 10:12 a.m. – 10:27 a.m.			
Location: On SR 133 adjacent to Hobbs Road			
Source of Peak Noise: Vehicles on SR 133 and farming equipment on adjacent properties			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
67.3	35.6	82.8	101.5

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Larson Davis**	**LxT SE**	**0005120**	**11/29/2021**	
	Microphone	**Larson Davis**	**377B02**	**334361**	**11/30/2021**	
	Preamp	**Larson Davis**	**PRMLxT1L**	**042852**	**11/30/2021**	
	Calibrator	**Larson Davis**	**CAL200**	**14105**	**11/10/2021**	

Weather Data			
Est.	**Duration:** 15 min.		**Sky:** Clear
	Note: dBA Offset = -0.01		**Sensor Height (ft):** 4.5
	Wind Ave Speed (mph)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (hPa)**
	9	59	

Photo of Measurement Location

Measurement Report

Report Summary

Meter's File Name	LxT_Data.411	Computer's File Name	SLM_0005120_LxT_Data_411.00.ldbin
Meter	LxT SE		
Firmware	2.404		
User		Location	
Description			
Note			
Start Time	2022-03-04 10:12:57	Duration	0:15:00.0
End Time	2022-03-04 10:27:57	Run Time	0:15:00.0
		Pause Time	0:00:00.0

Results

Overall Metrics

LA_{eq}	67.3 dB		
LAE	96.8 dB	SEA	--- dB
EA	536.1 µPa²h		
LZ_{peak}	101.5 dB	2022-03-04 10:19:58	
LAS_{max}	82.8 dB	2022-03-04 10:14:35	
LAS_{min}	35.6 dB	2022-03-04 10:25:22	
LA_{eq}	67.3 dB		
LC_{eq}	71.6 dB	LC_{eq} - LA_{eq}	4.3 dB
LAI_{eq}	70.3 dB	LAI_{eq} - LA_{eq}	3.0 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZpeak > 135.0 dB	0	0:00:00.0
LZpeak > 137.0 dB	0	0:00:00.0
LZpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
67.3 dB	67.3 dB	0.0 dB

LDEN	LDay	LEve	LNight
67.3 dB	67.3 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	67.3 dB		71.6 dB		--- dB	
$Ls_{(max)}$	82.8 dB	2022-03-04 10:14:35	--- dB		--- dB	
$LS_{(min)}$	35.6 dB	2022-03-04 10:25:22	--- dB		--- dB	
$L_{Peak(max)}$	--- dB		--- dB		101.5 dB	2022-03-04 10:19:58

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	75.0 dB
LAS 10.0	71.7 dB
LAS 33.3	59.7 dB
LAS 50.0	53.0 dB
LAS 66.6	49.0 dB
LAS 90.0	42.1 dB

Site Number: 3			
Recorded By: Rosey Worden			
Job Number: 2022-048			
Date: 3/4/2022			
Time: 10:34 a.m. – 10:49 a.m.			
Location: On Schlagle adjacent to SR 113			
Source of Peak Noise: Vehicles on SR 113			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
55.0	33.4	72.1	93.0

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Larson Davis**	**LxT SE**	**0005120**	**11/29/2021**	
	Microphone	**Larson Davis**	**377B02**	**334361**	**11/30/2021**	
	Preamp	**Larson Davis**	**PRMLxT1L**	**042852**	**11/30/2021**	
	Calibrator	**Larson Davis**	**CAL200**	**14105**	**11/10/2021**	

Weather Data			
Est.	**Duration:** 15 min.		**Sky:** Clear
	Note: dBA Offset = -0.01		**Sensor Height (ft):** 4.5
	Wind Ave Speed (mph)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (hPa)**
	9	59	

Photo of Measurement Location

Measurement Report

Report Summary

Meter's File Name	LxT_Data.412	Computer's File Name	SLM_0005120_LxT_Data_412.00.ldbin
Meter	LxT SE		
Firmware	2.404		
User		Location	
Description			
Note			
Start Time	2022-03-04 10:34:46	Duration	0:15:00.0
End Time	2022-03-04 10:49:46	Run Time	0:15:00.0
Pause Time	0:00:00.0		

Results

Overall Metrics

LA_{eq}	55.0 dB		
LAE	84.6 dB	SEA	--- dB
EA	31.8 µPa²h		
LZ_{peak}	93.0 dB	2022-03-04 10:44:27	
LAS_{max}	72.1 dB	2022-03-04 10:44:27	
LAS_{min}	33.4 dB	2022-03-04 10:37:12	
LA_{eq}	55.0 dB		
LC_{eq}	64.4 dB	LC_{eq} - LA_{eq}	9.4 dB
LAI_{eq}	57.4 dB	LAI_{eq} - LA_{eq}	2.4 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZpeak > 135.0 dB	0	0:00:00.0
LZpeak > 137.0 dB	0	0:00:00.0
LZpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
55.0 dB	55.0 dB	0.0 dB

LDEN	LDay	LEve	LNight
55.0 dB	55.0 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	55.0 dB		64.4 dB		--- dB	
$Ls_{(max)}$	72.1 dB	2022-03-04 10:44:27	--- dB		--- dB	
$LS_{(min)}$	33.4 dB	2022-03-04 10:37:12	--- dB		--- dB	
$L_{Peak(max)}$	--- dB		--- dB		93.0 dB	2022-03-04 10:44:27

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	60.7 dB
LAS 10.0	58.3 dB
LAS 33.3	50.1 dB
LAS 50.0	45.3 dB
LAS 66.6	42.1 dB
LAS 90.0	38.2 dB

ATTACHMENT B

Federal Highway Administration Roadway Construction Noise Model Outputs – Project Construction

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/9/2022
Case Description: Demolition

Description	**Affected Land Use**
Demolition	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**
Concrete/Industrial Saws	No	20		89.6	100
Rubber Tired Dozers	No	40		81.7	100
Tractors/Loaders/Backhoes	No	40	84		100
Tractors/Loaders/Backhoes	No	40	84		100
Tractors/Loaders/Backhoes	No	40	84		100

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Concrete/Industrial Saws	83.6	76.6
Rubber Tired Dozers	75.6	71.7
Tractors/Loaders/Backhoes	78	74
Tractors/Loaders/Backhoes	78	74
Tractors/Loaders/Backhoes	78	74
Total	**83.6**	**81.3**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/9/2022
Case Description: Site Preparation

Description	**Affected Land Use**
Site Preparation	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**
Grader	No	40	85		100
Rubber Tired Dozers	No	40		81.7	100
Tractors/Loaders/Backhoes	No	40	84		100

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Grader	79	75
Rubber Tired Dozers	75.6	71.7
Tractors/Loaders/Backhoes	78	74
Total	**79**	**78.5**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/9/2022
Case Description: Grading

Description	**Affected Land Use**
Grading	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**
Grader	No	40	85		100
Rubber Tired Dozers	No	40		81.7	100
Tractors/Loaders/Backhoes	No	40	84		100
Tractors/Loaders/Backhoes	No	40	84		100

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Grader	79	75
Rubber Tired Dozers	75.6	71.7
Tractors/Loaders/Backhoes	78	74
Tractors/Loaders/Backhoes	78	74
Total	**79**	**79.8**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/9/2022
Case Description: Paving

Description	**Affected Land Use**
Paving	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**
Cement and Mortar Mixers	No	40		78.8	100
Paver	No	50		77.2	100
Paving Equipment	No	50		77.2	100
Roller	No	20		80	100
Tractors/Loaders/Backhoes	No	40	84		100

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Cement and Mortar Mixers	72.8	68.8
Paver	71.2	68.2
Paving Equipment	71.2	68.2
Roller	74	67
Tractors/Loaders/Backhoes	78	74
Total	**78**	**77.1**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/9/2022
Case Description: Painting

Description	Affected Land Use
Painting	Residential

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)
Compressor (air)	No	40		77.7	100

Calculated (dBA)

Equipment		*Lmax	Leq
Compressor (air)		71.6	67.7
	Total	**71.6**	**67.7**

*Calculated Lmax is the Loudest value.

ATTACHMENT C

SoundPLAN Outputs – Onsite Project Noise

SoundPLAN
Output Source Information

Number	Reciever Name	Location	Level at Ground
1	Residential	On Burch Road approximately 290 feet north of the Project Site	38.8 dBA
2	Residential	On SR 133 adjacent to Hobbs Road	36.8 dBA
3	Residential	On Schlagle adjacent to SR 113	41.4 dBA
4	Residential	Residence directly east of Project Site	59.9 dBA

Number	Noise Source Information	Citation	Level at Sour
1	Internal Circulation/ Parking Lot Activity	ECORP Consultinjg, Inc. Refrence Noise Measurment (Parking Lot Noise)	61.8 dBA
2	Refrigerated Trucks	New York State Department of Transportation Feasibility of installing Noise Reduction Technologies on Commercial Vehicles to Support Off-Hour Deliveries (2013)	74.0 dBA
3	Truck Loading Dock	City of San Jose 2014 Midpoint at 237 Loading Dock Noise Study	79.0 dBA

APPENDIX D
TRANSPORTATION IMPACT ANALYSIS

July 1, 2022

Mr. Julio Tinajero
Milestone Associates Imagineering, Inc.
1000 Lincoln Road, Suite H202
Yuba City, CA 95991

RE: 1777 TUDOR ROAD (SR 113) TRUCK PARKING FACILITY, SUTTER CO, CA: TRAFFIC OPERATIONAL ASSESSMENT

Dear Mr. Tinajero:

Thank you for contacting our firm regarding the Truck Parking Facility proposed at 1777 Tudor Road (SR 113) in Sutter County, CA. As we understand the proposed project will occupy 1.3 acres at the northeast corner of Burch Road & Tudor Road (SR 113) about 4,500 feet west of the SR 99 / Tudor Road (SR 113) interchange. The project would provide space for 20 tractor-trailer combinations on the site. Access is proposed at a new 45 foot driveway on Tudor Road about 100 feet from Burch Road which would replace an existing driveway about 35 feet from Burch Road that served the site's previous agricultural-industrial use. This access would not be gated. No access from the truck parking area to Burch Road is proposed. The project would generally provide parking for trucks already using SR 99 and SR 113.

Sutter County has reviewed the project, and while a full transportation impact analysis is not required, normal questions have been raised to be resolved in a focused Traffic Analysis Report (TAR). These questions include:

1. What types of trucks will be using the site, and if STAA trucks are anticipated, is the route to and from SR 113 legally adequate for these vehicles?
2. At what time and in what number will trucks will be leaving and arriving at the proposed facility daily?
3. What are the effects on mainline SR 113 traffic created by project's truck traffic, and are improvements to the site access available that would address Caltrans concerns?

BACKGROUND INFORMATION

Existing Facilities / Traffic Operating Conditions

SR 99 / Burch Road Traffic Volumes. Caltrans reports that State Route 113 (SR 113) carried an Annual Average Daily Traffic (AADT) volume of 4,500 (2019) / 3,750 (2020) vehicles per day in the area of the proposed project west of the SR 99 interchange. Of that total, trucks comprise 7%

of the daily volumes, based on Caltrans data for the portion of SR 113 north of SR 45 in Yolo County.

The ***SR 113 / Burch Road intersection*** was observed on Tuesday January 4, 2022 during the typical morning (i.e., 7:00 to 9:00 a.m.) and evening (i.e., 4:00 to 6:00 p.m.) peak commute traffic hours. The number of trucks and automobiles already on Burch Road are noted in the attached counts, along with automobile and truck traffic on SR 113. Those counts indicated that Burch Road carried a total of 4 vehicles in the two hour morning observation and 5 in the two evening hours. Of these totals there were no "heavy trucks" (i.e., larger than SU trucks). It is recognized that traffic on Sutter County roads vary seasonally, and more automobiles and trucks could use Burch Road during the agricultural harvest season. At the same time there were 337 morning and 662 evening vehicles on Tudor Road (SR 113) and of these 55 and 23 were heavy trucks during the a.m. and evening periods, respectively. Heavy trucks represented 16% and 3% of the daily traffic during those two periods. The morning share may be higher than the daily average reported by Caltrans because automobile traffic could be lower at that time due to schools being closed.

SR 113 / Burch Road intersection Layout. Today the area around the Tudor Road (SR 113) / Burch Road intersection has not been improved to Caltrans current standards. SR 113 has two 12-foot travel lanes, double yellow center line stripe and a 4-foot paved shoulder. An 8-foot gravel shoulder exists beyond the pavement along the project frontage. Burch Road is roughly 20 feet wide and 25-foot returns are available on the north corners. A gravel shoulder exists on the east side of the road along the project frontage in the area just north of SR 113 where a rolling gate in the fence exist today. This gate is not a part of the proposed plan. The existing structure that is to remain on-site also has access onto Burch Road.

This "T" intersection is controlled by a stop sign on the southbound Burch Road approach, and appliable markings are provided. There is no left turn lane on SR 113 in this area, and the posted speed limit is 55 mph.

Regulations - State of California

SB 743. With the adoption and 2020 implementation of SB 743, CEQA analysis of transportation impacts has moved from analysis of motorist delay based on Level of Service to consideration of a project's contribution to global climate change as expressed in terms of Vehicle Miles Traveled (VMT). While capacity analysis and Level of Service can still be considered by local agencies in addressing General Plan consistency, Level of Service is no longer a CEQA topic.

State of California Department of Transportation (Caltrans). Caltrans has jurisdiction over state highways. Caltrans' policy documents and analysis guidelines provide direction for transportation impact analysis.

Highway Design Manual, 7th Edition (HDM). The HDM establishes uniform policies and procedures to carry out the state highway design functions of the California Department of

Transportation. The HDM establishes uniform policies and procedures to carry out the state highway design functions of the Department. It is neither intended as, nor does it establish, a legal standard for these functions. The standards, procedures, and requirements established and discussed herein are for the information and guidance of the officers and employees of the Department. Many of the instructions given herein are subject to amendment as conditions and experience warrant. Special situations may call for deviation from policies and procedures, subject to Division of Design approval, or such other approval as may be specifically provided for in the text of the HDM.

Encroachment Permits Manual. As a state highway, access to Tudor Road (SR 113) is controlled by Caltrans. The Encroachment Permits Manual describes Caltrans' policy, revisions and legislative actions that affect the encroachment permit process. It also provides information on the intergovernmental review process, procedures of the permitting process, storm water management, as-built plan requirements, utility encasement requirements, and other related programs and policies. ***Appendix J Road Connections and Driveways*** includes *Design Guidelines for Typical Rural Driveways on State Highways*. (Attached)

Because access to many other properties along this portion of SR 113 has been developed over time, few if any of the driveways meet all of the requirements of these guidelines.

We are not aware of the status of any existing Caltrans permit for current site access on SR 113. In many cases old access points without permits have been perpetuated as improvements are made to state highways. Officially, an encroachment permit is linked to a specific location, a specific use and a specific property owner, and any change to any of these conditions requires an amendment to an existing permit. In this case, while the current access is moving, the proposed activity may be more "heavy truck" centric than that which has existed in the past. Any driveway improvements made in the Caltrans right of way will require a new or amended encroachment permit.

Truck Turning Requirements. Large trucks (53-foot trailers) are allowed on mainline SR 113 under the Surface Transportation Authorization Act (STAA), but such vehicles are not permitted on intersecting Sutter County roads unless specifically designated for their use by Caltrans and the local agency (i.e., Sutter County) through evaluation of truck turning requirements. Private access anticipating trucks of this classification, as is typically the case for long haul operations, must also have access that can accommodate those vehicles.

Need for Left Turn Lanes. There are no left turns lanes at other private access on Tudor Road (SR 113) in the area from George Washington Blvd to SR 99. Caltrans determines the need for left turn lanes at private access on state highways on a case-by-case basis. The volume of automobile and truck traffic associated with an intersection is a consideration, as well as sight distance and available right of way. Caltrans makes use of Chapter 4 of the HDM, as well as guidance in the American Association of State Highway and Transportation Officials (AASHTO) publication *A Policy on Geometric Design of Highways and Streets*. AASHTO guidelines take

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two forms. These guidelines are presented the 11th Edition (2011) in their Exhibit 9-29 and Table 14 and base the need for a left turn lane on the volume of approaching and opposing traffic on the mainline road and the relative percentage of that traffic that turns. These criteria are applicable to intersections where the major street traffic proceeds freely and where side street traffic is controlled by stop signs.

The AASHTO publication was updated in December 2018 and different guidelines are now available. The new guidelines suggest that a left turn lane could be beneficial based on the volume of traffic turning and the total volume per lane on the street. This guidance is presented in their Figure 9-36 Table 15 which follows. These guidelines also suggest volume thresholds for creation of a "bypass" lane that, absent a full turn lane, would allow through traffic to proceed around a vehicle stopped to turn left at a "tee" intersection. The information supporting the 2018 guidelines note, however, that *The volume based guidelines or warrants presented below indicate situations where a left turn lane may be desirable, not necessarily situations where a left-turn lane is definitely needed.*

Need for and Length of Right Turn Lanes. Again, depending on the application, Caltrans may elect to require a right turn lane at private access to reduce the effects of right turns on through traffic flow and safety. The decision is typically based on consideration of factors such as the number and type of vehicles turning right, and speed and volume of through traffic. The length of right turn lanes is based on deceleration requirements contained in HDM Table 405.2b, and a 530 foot deceleration distance is identified for 60 mph design. For simple situations where a full right turn lane is not required, the standard rural road encroachment illustrated in the *Design Guidelines for Typical Rural Driveways on State Highways* and based on HDM Figure 205.1 is available. This figure (attached) illustrates 25-foot returns offset 8 feet from the shoulder proceed by a 50-foot transitions

TABLE 14
ASSESSMENT OF JUSTIFICATION FOR LEFT TURN LANES
UNDER 2011 AASHTO

Opposing Volume (veh/hr)	Advancing Volume (veh/hr)			
	5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
40-mph operating speed				
800	330	240	180	160
600	410	305	225	200
400	510	380	275	245
200	640	470	350	305
100	720	515	390	340

Source: *A Policy on Geometric Design of Highway and Streets, AASHTO, 2011.*

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TABLE 15 ASSESSMENT OF JUSTIFICATION FOR LEFT TURN LANES UNDER 2018 AASHTO		
Left Turn Lane Volume (VPH)	**Major Road Two-Lane Highway Peak-Hour Volume (VPH/Lane)**	
	Three-Leg Intersection	**Four-Leg Intersection**
	Warrants a Left Turn Lane	**Warrants a Left Turn Lane**
5	200	150
10	100	50
15	100	50
20	50	< 50
25	50	< 50
30	50	< 50
35	50	< 50
40	50	< 50
45	50	< 50
50 or more	50	< 50
Source: *A Policy on Geometric Design of Highway and Streets, AASHTO, 2018.*		

Sight Distance. The HDM presents two standards for sight distance:

- Minimum stopping sight distance: HDM Table 201.1
- Corner Sight Distance HDM Table 4.05.A

Table 405.1B notes the application of these two measures for public and private roads.

In this case the minimum sight distance for a design speed of 60 mph is 580 feet. For private roads the minimum requirement is the Minimum Stopping Sight Distance.

Similarly, for a 60 mph design speed, an entering heavy truck turning left onto eastbound SR 113 would require 1,015 feet of Corner Sight Distance looking right and 925 feet looking left.

PROPOSED PROJECT

Project Travel Characteristics

Type of Operation. The operational characteristics of the project have been identified in terms of the amount of truck and automobile activity and the time periods of that travel. Typically, trucking operations fall into two categories: "Long haul" or "Local Distribution or Agricultural Harvesting

/ Processing Support". For long haul trucks the typical routine sends drivers away from the site for extended periods of time. On a typical weeklong haul, most trucks return to the site on Friday and leave early Sunday or Monday, and most drivers try to operate outside peak traffic hours. Trips to the east coast can take longer. During the week some trucks may come and go for inspection or maintenance or if the drivers have to come home during the week. Alternatively, local based trucking typically leaves the site each weekday and returns that afternoon /evening. In both cases, a driver would travel by automobile to and from the site before beginning or ending his trips. Some of the truck drivers would park their personal auto at the site and others would be dropped off.

Trip Generation. This project's trip generation was estimated based on available resources and our understanding of the characteristics of these uses. You have indicated that this site will be used by long haul truckers.

Long haul truck trip generation rates were developed from 24-hr truck traffic counts at a large (440 spaces) truck parking area in Yuba City. That site generated 334 total truck trips (143 in and 191 out) on a Thursday, or 7.6 daily truck trips per 10 spaces. It was assumed that drivers would generate automobile trips at the same time that trucks entered and exited and that ½ of the drivers would be dropped off / picked up.

Alternative for local trucks it would be assumed that all would move to and from the site each day, or 20 daily truck trips per 10 spaces. Typically, much local truck activity begins in the morning before the typical commute hour, and trucks return outside of the p.m. peak hour. For this analysis we have assumed that 1/3 of the local trucks will travel to and from the site during peak hour, and that ½ of the drivers will be dropped off / picked up.

Assuming project trucks are all long haul the project results in the daily and peak hour trip generation forecasts presented in Table 1. As shown, 3 trips are projected in the a.m. and p.m. peak hours, while the project is projected to generate 38 daily trips. Of the total, 15 trips would be long haul trucks.

TABLE 1
PROJECT TRIP GENERATION

Unit	Unit	Quantity	Trucks			Automobiles			Total		
			In	Out	Total	In	Out	Total	In	Out	Total
A.M. Peak Hour											
Long Haul	10 spaces	1	8%	92%	0.55	64%	36%	0.82	42%	58%	1.36
Proposed	**20 spaces**	**2.0**	**0**	**1**	**1**	**1**	**1**	**2**	**1**	**2**	**3**
P.M. Peak Hour											
Long Haul	10 spaces	1	71%	29%	0.55	43%	57%	0.82	54%	46%	1.36
Proposed	**20 spaces**	**2.0**	**1**	**0**	**1**	**1**	**2**	**2**	**2**	**1**	**3**
Daily											
Long Haul	10	1	50%	50%	7.64	50%	50%	11.45	50%	50%	19.10
Proposed	**20 spaces**	**2.0**			**15**			**23**			**38**

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Proposed SR 113 Access. The proposed access to SR 113 is 45 feet wide at an opening in the fence along the state right of way 30 feet from the centerline of SR 113. The driveway would not be gated. No improvements within the Caltrans right of way are proposed. The project and its access are within a ¼ mile long portion of SR 113 east of Burch Road where access at 10 other residential and agricultural-industrial driveways already exists on the north side of the highway.

Project Effects / Recommended Improvements

Because the volume of new traffic associated with this use is low, its effects on the state highway would primarily relate to:

- The availability of adequate sight distance for exiting vehicles for other motorists who are approaching the access when a truck is accessing the driveway.
- the ability of large trucks to enter and exit the site without interfering with the flow of background traffic on SR 113.
- the need for a left turn on eastbound SR 113.

Sight Distance. The alignment of SR 113 in this area is level and straight. As a result, the view measured 15 feet from the edge of the travel way across the Caltrans right of way would satisfy corner sight distance requirements in both directions. However, there may be vegetation in Caltrans right of way that would need to be maintained to perpetuate a clear view from the eye of a driver in the cab of a heavy truck. This includes a tree at the southeast corner of the site that should be removed.

STAA Trucks. While some of the trucks at the site may be classified as California Legal, and do not require additional approvals, trucks permitted under the Surface Transportation Authorization Act (STAA) are also expected by the project proponents. The path of STAA trucks at the site access has been plotted, and the results are attached. As shown, the paths of heavy trucks with the planned 45 foot opening would require use of the full driveway width when entering and exiting in either direction, and as a result would preclude travel in the opposite direction. Those paths would travel over the graveled area along the project frontage outside of the existing 4 foot shoulder.

Truck paths that take over the entire driveway width are a common practice in low traffic volume areas where inbound trucks can pause at the entrance and wait for any occasional outbound traffic to clear without interfering with through traffic. The applicability of this design will be considered by Caltrans. The driveway would need to be much wider if it was necessary to ensure that an inbound truck avoided the outbound lane and vice versa.

At a minimum the access should be improved to meet the requirements of HDM Figure 205.1 in terms of return radius offset and transition, and that concept should be adapted to address the actual turning path that has been shown in our exhibits.

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Left Turn Lane. The volume of traffic turning left into the site is very low, and a separate left turn lane is not needed.

Right Turn Lane. The number of trucks turning right into the site over the course of a day is low, and with implementation of Figure 205.1 improvements a separate westbound right turn lane is not needed to avoid impacting mainline traffic on SR 113. Because the access is not gated arriving trucks will not have to stop outside of the driveway to open a gate. If it were necessary to provide space for trucks outside of mainline SR 113, an alternative would be to reconstruct the area beyond the shoulder along the project site and along its neighbor to the east.

Alternatives to SR 113 Access. Because the site abuts Burch Road, Caltrans will ask whether it is feasible to access the site via that road instead of SR 113.

There appears to be several site limitations associated with Burch Road access for this type of use. First, Burch Road is not designated a truck route by Sutter County.

The available right of way on Burch Road is narrow and improving the Burch Road / SR 113 intersection to STAA standards would likely require additional right of way and major improvements.

Conclusions With adaptation and implementation of the access improvements included in HDM Figure 205.1 the proposed project with 20 truck / trailer spaces can be developed without significant safety impacts to SR 113 in this area.

Please feel free to call me if you have any questions.

Sincerely Yours,

KD Anderson & Associates, Inc.

Kenneth D. Anderson, P.E.
President

Attachments: traffic count, truck turn plots. Caltrans documents

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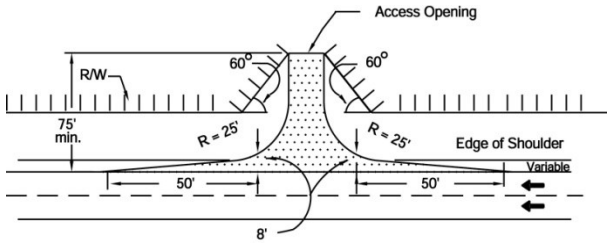
Figure 205.1

Access Openings on Expressways



RECESSED OPENING

NOTES:

- By widening the expressway shoulder, deceleration lanes may be provided where justified.
- This detail, without the recess, may be used on conventional highways.

205.3 Urban Driveways

These instructions apply to the design of driveways to serve property abutting on State highways in cities or where urban type development is encountered.

Details for driveway construction are shown on the Standard Plans. Corner sight distance requirements are not applied to urban driveways. See Index 405.1(2) for further information.

(1) Correlation with Local Standards. Where there is a local requirement regulating driveway construction, the higher standard will normally govern.

(2) Driveway Width. The width of driveways for both residential and commercial usage is measured at the throat, exclusive of any flares. ("W" as shown in Standard Plan A87A).

(3) Residential Driveways. The width of single residential driveways should be 12 feet minimum and 20 feet maximum. The width of a double residential driveway such as used for multiple dwellings should be 20 feet minimum and 30 feet maximum. The width selected should be based on an analysis of the anticipated volume, type and speed of traffic, location of buildings and garages, width of street, etc.

(4) Commercial Driveways. Commercial driveways should be limited to the following maximum widths:

(a) When the driveway is used for one-way traffic, the maximum width should be 25 feet. If the driveway serves a large parcel, where large volumes of vehicles or large vehicles are expected, the entrance maximum width should be 40 feet and the exit maximum width should be 35 feet.

(b) When the driveway is used for two-way traffic, the maximum width should be 35 feet. If the driveway serves a large parcel, where large volumes of vehicles or large vehicles are expected, then the maximum width should be 45 feet.

(c) When only one driveway serves a given property, in no case should the width of the driveway including the side slope distances exceed the property frontage.

(d) When more than one driveway is to serve a given property, the total width of all driveways should not exceed 70 percent of the frontage where such a frontage is 100 feet or less. Where the frontage is more than 100 feet, the total driveway width

Prepared by National Data & Surveying Services

Burch Rd & SR 113

Peak Hour Turning Movement Count

ID: 22-070009-001
City: Yuba City

Day: Tuesday
Date: 1/4/2022

PEAK HOURS

AM: 07:00 AM - 08:00 AM
NOON: NONE
PM: 04:00 PM - 05:00 PM

COUNT PERIODS

AM: 7:00 AM - 09:00 AM
NOON: NONE
PM: 4:00 PM - 06:00 PM

SOUTHBOUND (Burch Rd)

AM	1	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	1	0	1	0	1	PM

EASTBOUND (SR 113)

AM	NOON	PM	
155	0	107	⇦
0	0	0	↶ 0
0	0	1	↱ 0
95	0	291	→ 0
0	0	0	↴ 0
AM	NOON	PM	

WESTBOUND (SR 113)

PM	NOON	AM	
0	0	0	0 ↰
106	0	154	0 ←
0	0	1	0 ↰
0	0	0	0 ↰
292	0	95	⇨
PM	NOON	AM	

NORTHBOUND (Burch Rd)

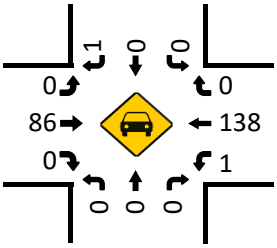
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	1	0	0	0	0	AM

CONTROL

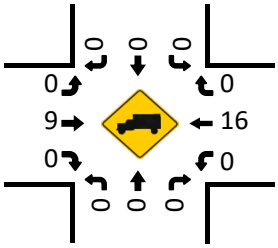
1-Way Stop(SB)

TEV	251 AM	0 NOON	400 PM
PHF	0.85		0.84

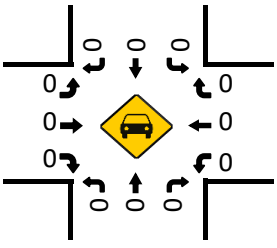
Cars (AM)



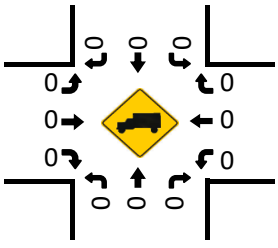
HT (AM)



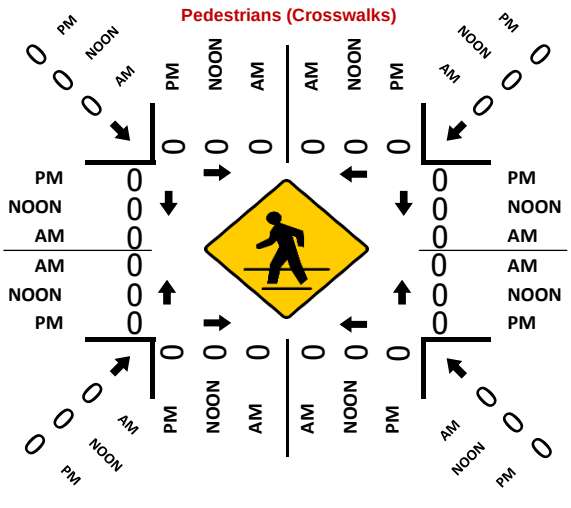
Cars (NOON)



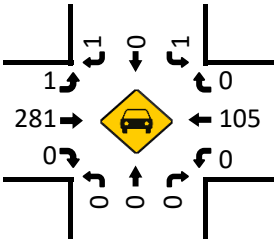
HT (NOON)



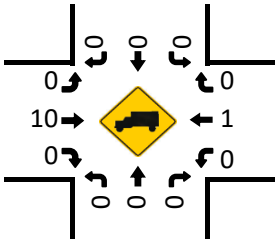
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Burch Rd & SR 113
City: Yuba City
Control: 1-Way Stop(SB)

Project ID: 22-070009-001
Date: 1/4/2022

Data - Total

NS/EW Streets:	Burch Rd				Burch Rd				SR 113				SR 113				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	25	0	0	1	48	0	0	74
7:15 AM	0	0	0	0	0	0	1	0	0	30	0	0	0	38	0	0	69
7:30 AM	0	0	0	0	0	0	0	0	0	16	0	0	0	43	0	0	59
7:45 AM	0	0	0	0	0	0	0	0	0	24	0	0	0	25	0	0	49
8:00 AM	1	0	0	0	2	0	0	0	0	25	0	0	0	20	0	0	48
8:15 AM	0	0	0	0	0	0	0	0	0	21	0	0	0	24	0	0	45
8:30 AM	0	0	0	0	0	0	0	0	0	21	0	0	0	28	0	0	49
8:45 AM	0	0	0	0	1	0	0	0	0	20	0	0	0	34	0	0	55
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	0	0	0	3	0	1	0	0	182	0	0	1	260	0	0	448
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	75.00%	0.00%	25.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.38%	99.62%	0.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	0	95	0	0	1	154	0	0	251
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.792	0.000	0.000	0.250	0.802	0.000	0.000	0.848
					0.250				0.792				0.791				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	0	0	0	0	1	0	0	0	0	82	0	0	0	28	0	0	111
4:15 PM	0	0	0	0	0	0	1	0	1	90	0	0	0	27	0	0	119
4:30 PM	0	0	0	0	0	0	0	0	0	69	0	0	0	31	0	0	100
4:45 PM	0	0	0	0	0	0	0	0	0	50	0	0	0	20	0	0	70
5:00 PM	0	0	0	0	0	0	0	0	0	61	0	1	0	18	1	0	81
5:15 PM	0	0	0	0	0	0	0	0	0	32	0	0	0	28	0	0	60
5:30 PM	0	0	0	0	0	0	0	0	0	62	0	0	0	26	1	0	89
5:45 PM	0	0	0	0	0	0	0	0	0	22	0	0	0	12	0	0	34
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	1	0	1	468	0	1	0	190	2	0	664
APPROACH %'s :					50.00%	0.00%	50.00%	0.00%	0.21%	99.57%	0.00%	0.21%	0.00%	98.96%	1.04%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	1	0	1	291	0	0	0	106	0	0	400
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.250	0.808	0.000	0.000	0.000	0.855	0.000	0.000	0.840
					0.500				0.802				0.855				

National Data & Surveying Services Intersection Turning Movement Count

Location: Burch Rd & SR 113
City: Yuba City
Control: 1-Way Stop(SB)

Project ID: 22-070009-001
Date: 1/4/2022

Data - Cars

NS/EW Streets:	Burch Rd				Burch Rd				SR 113				SR 113				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	20	0	0	1	42	0	0	63
7:15 AM	0	0	0	0	0	0	1	0	0	28	0	0	0	35	0	0	64
7:30 AM	0	0	0	0	0	0	0	0	0	15	0	0	0	38	0	0	53
7:45 AM	0	0	0	0	0	0	0	0	0	23	0	0	0	23	0	0	46
8:00 AM	1	0	0	0	2	0	0	0	0	21	0	0	0	16	0	0	40
8:15 AM	0	0	0	0	0	0	0	0	0	19	0	0	0	17	0	0	36
8:30 AM	0	0	0	0	0	0	0	0	0	17	0	0	0	26	0	0	43
8:45 AM	0	0	0	0	1	0	0	0	0	16	0	0	0	31	0	0	48
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	0	0	0	3	0	1	0	0	159	0	0	1	228	0	0	393
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	75.00%	0.00%	25.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.44%	99.56%	0.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	0	86	0	0	1	138	0	0	226
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.768	0.000	0.000	0.250	0.821	0.000	0.000	0.883
					0.250				0.768				0.808				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	1	0	0	0	0	81	0	0	0	28	0	0	110
4:15 PM	0	0	0	0	0	0	1	0	1	85	0	0	0	27	0	0	114
4:30 PM	0	0	0	0	0	0	0	0	0	67	0	0	0	31	0	0	98
4:45 PM	0	0	0	0	0	0	0	0	0	48	0	0	0	19	0	0	67
5:00 PM	0	0	0	0	0	0	0	0	0	59	0	1	0	17	1	0	78
5:15 PM	0	0	0	0	0	0	0	0	0	31	0	0	0	28	0	0	59
5:30 PM	0	0	0	0	0	0	0	0	0	57	0	0	0	23	1	0	81
5:45 PM	0	0	0	0	0	0	0	0	0	22	0	0	0	12	0	0	34
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	1	0	1	450	0	1	0	185	2	0	641
APPROACH %'s :					50.00%	0.00%	50.00%	0.00%	0.22%	99.56%	0.00%	0.22%	0.00%	98.93%	1.07%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	1	0	1	281	0	0	0	105	0	0	389
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.250	0.826	0.000	0.000	0.000	0.847	0.000	0.000	0.853
					0.500				0.820				0.847				

National Data & Surveying Services Intersection Turning Movement Count

Location: Burch Rd & SR 113
City: Yuba City
Control: 1-Way Stop(SB)

Project ID: 22-070009-001
Date: 1/4/2022

Data - HT

NS/EW Streets:	Burch Rd				Burch Rd				SR 113				SR 113				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	6	0	0	11
7:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	5
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	0	6
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	8
8:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	7	0	0	9
8:30 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	6
8:45 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	23	0	0	0	32	0	0	55
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	9	0	0	0	16	0	0	25
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.450	0.000	0.000	0.000	0.667	0.000	0.000	0.568
									0.450				0.667				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5
4:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0	0	8
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	18	0	0	0	5	0	0	23
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	10	0	0	0	1	0	0	11
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.250	0.000	0.000	0.550
									0.500				0.250				

National Data & Surveying Services Intersection Turning Movement Count

Location: Burch Rd & SR 113
City: Yuba City
Control: 1-Way Stop(SB)

Project ID: 22-070009-001
Date: 1/4/2022

Data - Bikes

NS/EW Streets:	Burch Rd				Burch Rd				SR 113				SR 113				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

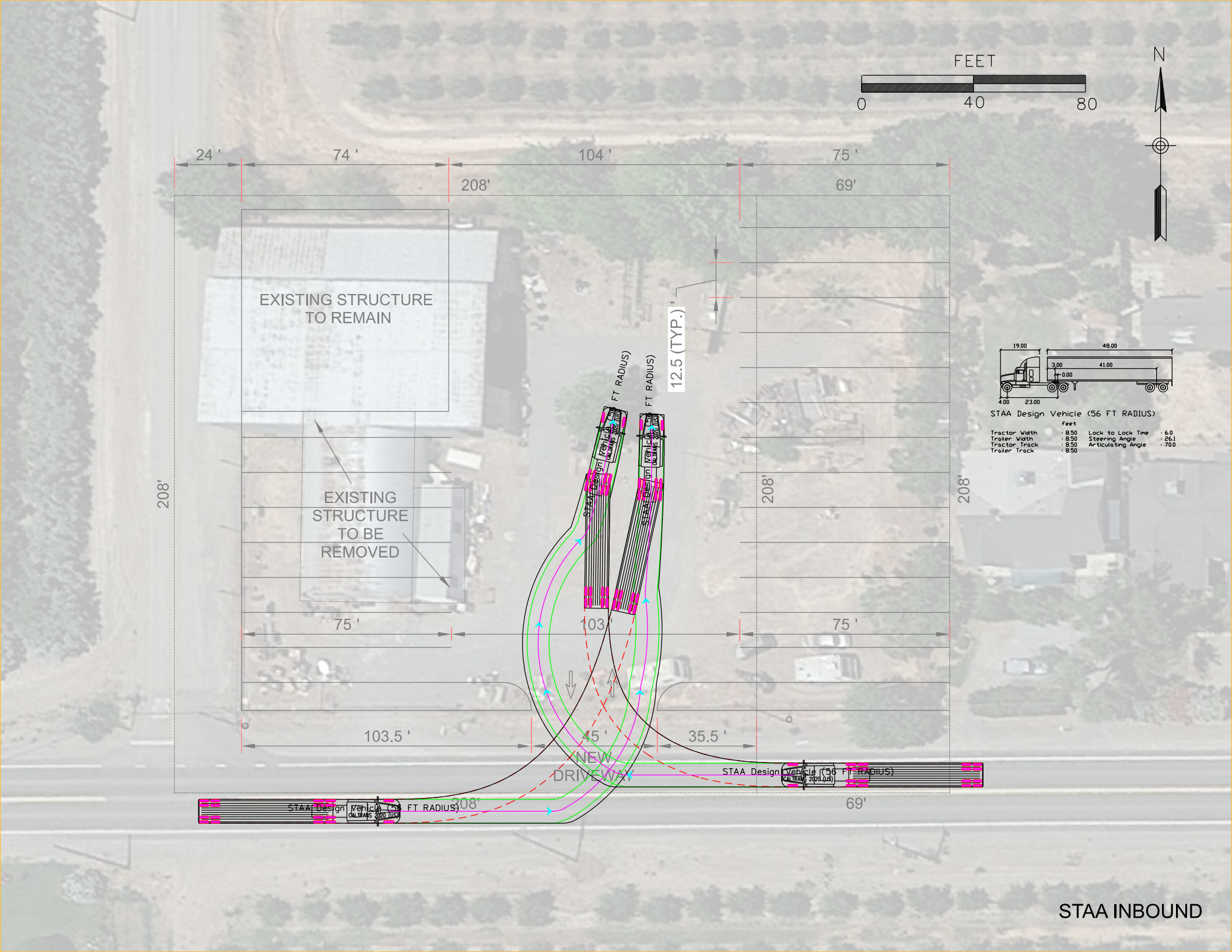
National Data & Surveying Services Intersection Turning Movement Count

Location: Burch Rd & SR 113
City: Yuba City
Project ID: 22-070009-001
Date: 1/4/2022

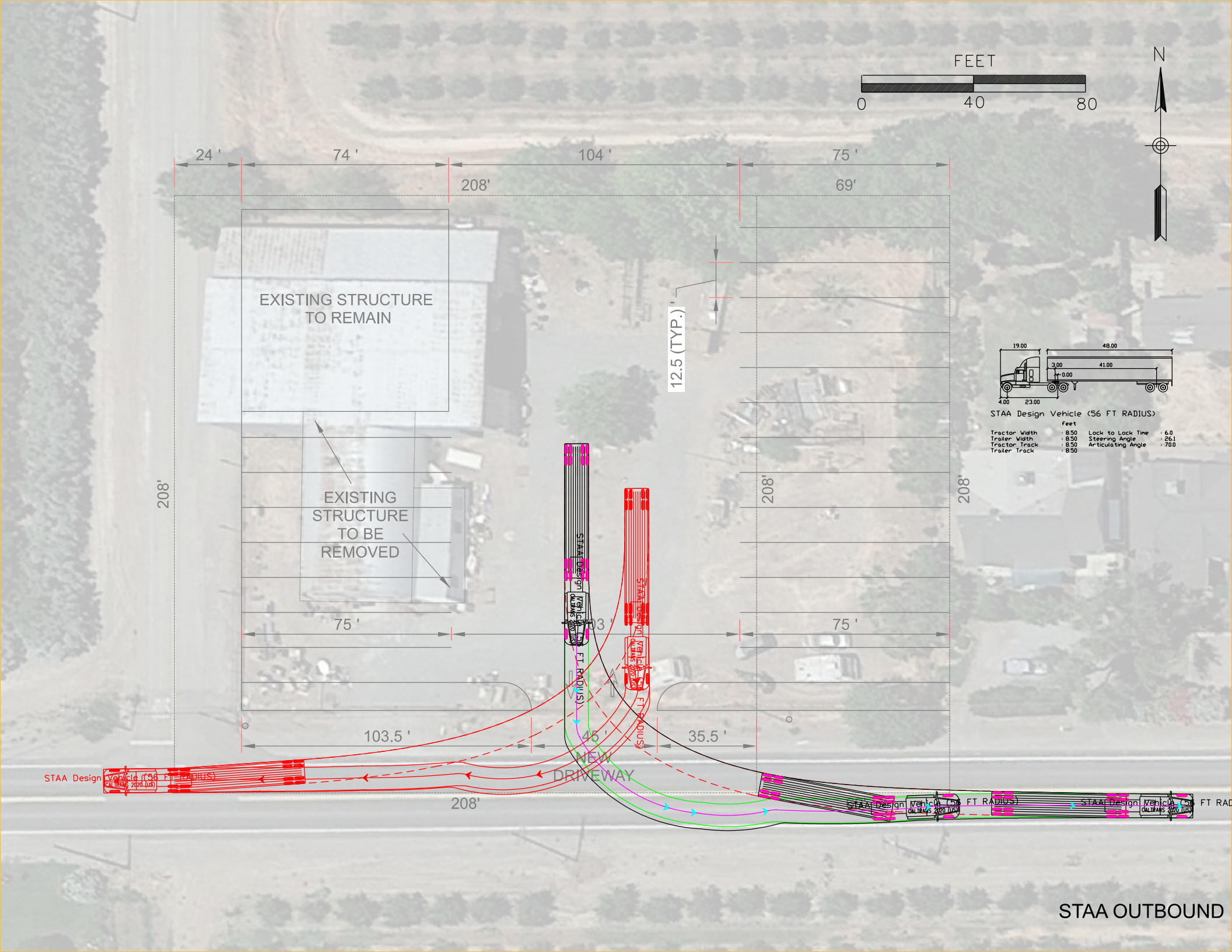
Data - Pedestrians (Crosswalks)

NS/EW Streets:	Burch Rd		Burch Rd		SR 113		SR 113		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	07:00 AM - 08:00 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									



STAA INBOUND



STAA OUTBOUND

Appendix J – Road Connections and Driveways

Table of Contents

Design Guidelines for Typical Rural Driveways in State Right of Way

REFERENCES:

Please always refer to the latest Highway Design Manual (HDM) for most up to date guidelines. The HDM indexes referenced in the guidelines below can be accessed online from the following link:

https://dot.ca.gov/programs/design/manual-highway-design-manual-hdm

Initial Driveway Design Considerations:

1. **Location of the driveway shall be designed to maximize corner sight distance.** For corner sight distance, see HDM Index 405.1 (2)(c). Driveway proposals that do not meet sight distance requirements will not be permitted. The minimum corner sight distance shall be equal to the stopping sight distance as given in HDM Table 201.1. HDM Table 101.2 shows appropriate ranges of design speeds that shall be used for the various types of facilities, place types, and conditions listed (see HDM Table 101.2 Vehicular Design Speed; Table 201.1 Sight Distance Standards; Index 205.4 Driveways on Frontage roads and in Rural Areas; Index 405.1 (2) Corner Sight Distance).

2. **Driveways connecting to State highways shall be paved a minimum of 20 feet from the edge of shoulder** or to the edge of State right of way, whichever is less to minimize or eliminate gravel from being scattered on the highway and to provide a paved surface for vehicles and bicycles to accelerate and merge. Where larger design vehicles are using the driveway (e.g., dump trucks, flatbed trucks, moving vans, etc.), extend paving so the drive wheels will be on a paved surface when accelerating onto the roadway (see HDM Index 205.4 Driveways on Frontage roads and in Rural Areas).

Driveway Design Details: Once considerations 1 and 2 above are met, driveway shall be designed per the following requirements:

3. Where County or City Regulations differ from the State's, it may be desirable to follow their regulations (See HDM Index 205.4 Driveways on Frontage roads and in Rural Areas).

OR

4. Design details are shown on HDM Figure 205.1. This detail, without the recess, may be used on conventional highways (see HDM Figure 205.1 Access Openings on Expressways, Note 2).

5. Approach and departure tapers should be 50 feet longitudinal and 8 feet from edge of traveled way at the end of the taper. Approach and departure tapers are not required where the existing paved shoulder is at least 8 feet wide (see HDM Figure 205.1 Access Openings on Expressways).

Structural Section Design Details: Driveways structural section has to meet the following requirements:

6. Approach and departure tapers should have structural sections matching the existing State highway shoulders. An alternate shoulder design is allowed. See HDM Figure 613.5B for details. For asphalt driveway the structural section should be equal to or greater than edge of shoulder or approach and

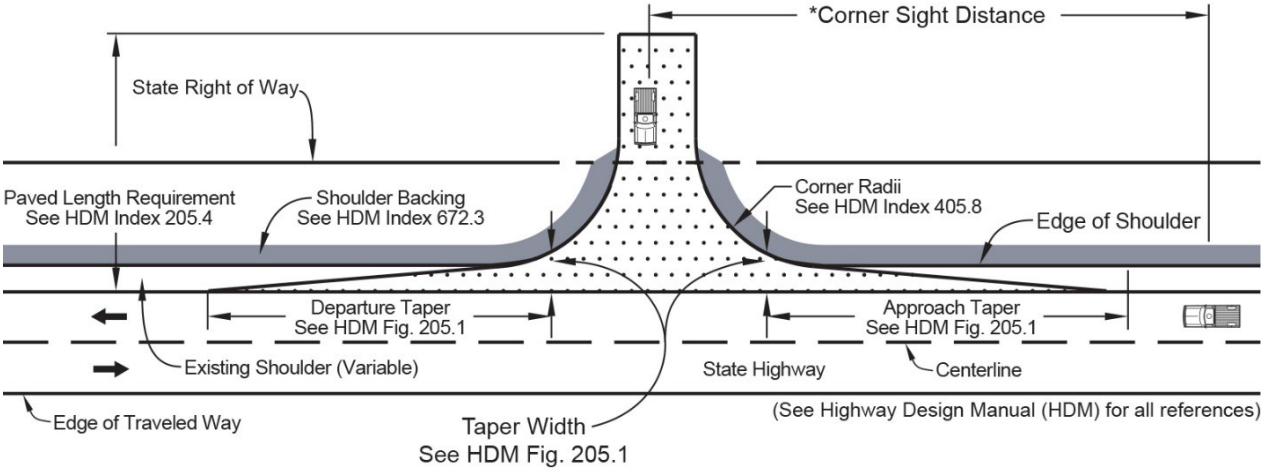
departure tapers. Minimum thickness of surface course is 0.35 foot. Aggregate base depth should match State highway shoulders. Details (cross section, etc.) for concrete driveways are shown on Standard Plan A87A. Minimum thickness at driveway shall be 4 inches for residential and 6 inches for commercial. (See HDM 613.5 (2) Shoulders; Standard Plan A87A Curb and Driveways; Standard Plans are available at:

https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications

7. Place shoulder backing from the edge of pavement (EP) to the hinge point (HP). Shoulder backing should be placed on a width of at least 2 feet from EP. For placement of shoulder backing thickness greater than 0.5 foot for slope repair; shoulder backing behind dikes; and where longitudinal drainage are present; see HDM for details (see HDM Index 672 Shoulder Backing and HDM Figures 672.3 A through E).

The Figure below is provided to assist driveway design for rural areas and to clarify terminologies used in the above guidance. This figure is provided for general illustration purposes and is not be used for design details. It should not to be used as a drawing in the encroachment permit application for the driveway.

Driveway Design Requirements for Rural Areas with Unimproved Frontage on Conventional State Highways



*Corner Sight Distance shall be calculated from all directions of approach. See HDM Index 405.1(2) & Figure 405.7 for set back and sight distance calculations.

Purpose: The above excerpts from the Department's HDM are shown for reference. The design standards used for any project should equal or exceed the minimum given in the manual to the maximum extent feasible. They do not replace engineering knowledge, experience, and judgment in the design of driveways.

Special situations may call for variation from policies and procedures, subject to the appropriate approval. This is not intended to, nor does it establish a legal standard or any other standard of conduct or duty toward the public.