City of
SACRAMENTO

COMMUNITY DEVELOPMENT
DEPARTMENT

ENVIRONMENTAL PLANNING
SERVICES

300 Richards Boulevard
Third Floor
Sacramento, CA 95811

RECIRCULATED MITIGATED NEGATIVE DECLARATION

The City of Sacramento, California, a municipal corporation, does hereby prepare, declare, and publish this Negative Declaration for the following described project:

Elite Truck Repair Project (P22-007) The proposed project consists of a request to construct a new truck service facility to provide minor truck service, truck parking, warehouse space, and administrative office space on a 4.99-acre site located at 2041 Rene Avenue in the City of Sacramento. The proposed project is being designed to provide service to electric powered trucks. The proposed truck service building is approximately 20,850 square feet and includes: a pre-engineered metal building combined with an office standard metal frame; five service bays for minor repairs and service; a warehouse; truck driver and mechanic locker rooms, visiting trucker lounge and laundry; parts storage, storage area; administrative offices; and a dispatch office. The site would provide truck maintenance service, oil changes, brake service, alignments, and tire changes. Photovoltaic solar panels will be mounted on a "cool" roof. No emergency generators would be required for the facility.

The Lead Agency is the City of Sacramento. The City of Sacramento, Community Development Department, has reviewed the proposed project and, on the basis of the whole record before it, has determined that there is no substantial evidence that the project, as identified in the attached Initial Study, will have a significant effect on the environment. This Mitigated Negative Declaration reflects the lead agency's independent judgment and analysis. An Environmental Impact Report is not required pursuant to the Environmental Quality Act of 1970 (Sections 21000, et seq., Public Resources Code of the State of California).

This Mitigated Negative Declaration has been prepared pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 et seq.), CEQA Guidelines (Title 14, Sections 15000 et seq. of the California Code of Regulations), the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento, and the Sacramento City Code.

Due to concerns over COVID-19, the City of Sacramento, Community Development Department's Public Counter, at 300 Richards Boulevard, 3rd Floor, Sacramento, CA 95811 is open by appointment on Tuesdays and Wednesdays. A copy of this document and all supportive is available on the City's EIR Webpage at:

http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports

Environmental Services Manager, City of Sacramento,
California, a municipal corporation

By: Scott Johnson

Date: September 6, 2023

City of SACRAMENTO

ELITE TRUCK REPAIR PROJECT
[P22-007]

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION FOR ANTICIPATED SUBSEQUENT PROJECTS UNDER THE 2035 GENERAL PLAN MASTER EIR

This Initial Study has been prepared by the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15000 *et seq.* of the California Code of Regulations) and the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento.

ORGANIZATION OF THE INITIAL STUDY

This Initial Study is organized into the following sections:

SECTION I - BACKGROUND: Provides summary background information about the project name, location, sponsor, and the date this Initial Study was completed.

SECTION II - PROJECT DESCRIPTION: Includes a detailed description of the proposed project.

SECTION III - ENVIRONMENTAL CHECKLIST AND DISCUSSION: Reviews proposed project and states whether the project would have additional significant environmental effects (project-specific effects) that were not evaluated in the Master EIR for the 2035 General Plan.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Identifies which environmental factors were determined to have additional significant environmental effects.

SECTION V - DETERMINATION: States whether environmental effects associated with development of the proposed project are significant, and what, if any, added environmental documentation may be required.

REFERENCES CITED: Identifies source materials that have been consulted in the preparation of the Initial Study.

APPENDICES: Appends technical information that was referenced as attached in the preparation of the Initial Study/Mitigated Negative Declaration.

Revisions have been made based upon comments received during the public review process. Revisions have been made to the Project Description, attachments, and Noise sections additions are shown in underline text and any deletions are shown in strikethrough text.

SECTION I - BACKGROUND

Project Name and File Number:	Elite Truck Repair (P22-007)
Project Location:	2041 Rene Avenue, Sacramento, CA 95838 Assessor's Parcel Numbers (APNs) 238-0150-020
Project Applicant:	Lex Coffroth - Architect PO Box 811 14138 Dye Street Walnut Grove, CA 95690 (916) 801-1808 lcaarch@citilink.net
Project Planner:	Jose Quintanilla, Associate Planner, North Area City of Sacramento Community Development Department 300 Richards Boulevard, 3rd Floor Sacramento, CA 95811 jquintanilla@cityofsacramento.org
Environmental Planner:	Ron Bess, Associate Planner (916) 808-8272 Rbess@cityofsacramento.org
Date Initial Study Completed:	~~December 2022~~June 2023

This Initial Study was prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 1500 *et seq*.). The Lead Agency is the City of Sacramento.

The City of Sacramento, Community Development Department, has reviewed the proposed project and, on the basis of the whole record before it, has determined that the proposed project is an anticipated subsequent project identified and described in the 2035 General Plan Master EIR and is consistent with the land use designation and the permissible densities and intensities of use for the project site as set forth in the 2035 General Plan. See CEQA Guidelines Section 15176 (b) and (d).

The City has prepared the attached Initial Study to review the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the 2035 General Plan Master EIR to determine their adequacy for the project (see CEQA Guidelines Section 15178(b),(c)) and identify any potential new or additional project-specific significant environmental effects that were not analyzed in the Master EIR and any mitigation measures or alternatives that may avoid or mitigate the identified effects to a level of insignificance, if any.

As part of the Master EIR process, the City is required to incorporate all feasible mitigation measures or feasible alternatives appropriate to the project as set forth in the Master EIR (CEQA Guidelines Section 15177(d)) Policies included in the 2035 General Plan that reduce significant impacts identified in the Master EIR are identified and discussed. See also the Master EIR for the 2035 General Plan. The mitigation monitoring plan for the 2035 General Plan, which provides references to applicable general plan policies that reduce the environmental effects of development that may occur consistent with the general plan, is included in the adopting resolution for the Master EIR.

The analysis contained in this IS/MND incorporates by reference the general discussion portions of the 2035 General Plan Master EIR. (CEQA Guidelines Section 15150(a)). The Master EIR and resolution is available for public review at the link listed below:

http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.aspx

A copy of this document and all supportive documentation may be reviewed through the City's website at:

http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.aspx

The City of Sacramento will circulate a Notice of Availability/Notice of Intent (NOA/NOI) that confirms the City's intention to adopt the Mitigated Negative Declaration and provides dates for public comment. The NOA/NOI will be available on the City's website set forth above.

The City is soliciting views of interested persons and agencies on the content of the environmental information presented in this document. Written comments should be sent at the earliest possible date, but no later than the 30-day review period ending ~~February~~ September , 2023.

Please send written responses to:

Ron Bess, Associate Planner
Community Development Department
City of Sacramento
300 Richards Blvd, 3rd Floor
Sacramento, CA 95811
Direct Line: (916) 808-8272
Rbess@cityofsacramento.org

SECTION II - PROJECT DESCRIPTION

This document provides a description of the Elite Truck Repair Project (proposed project) and includes background, location, existing conditions, surrounding land uses,and project components.

Project Location

The project site consists of a vacant parcel totaling approximately 4.81-acre located north of Rene Avenue, generally between Pinell Street and Astoria Street, in the City of Sacramento, California (APN 238-0150-002) (Figures 1 and 2). The project site is situated approximately 6 miles northeast of downtown Sacramento.

Existing Conditions and Surrounding Land Uses

The project site is currently vacant and highly disturbed due to regular disking for weed abatement. The project site is zoned as Light Industrial/Special Planning District (M-1-SPD). The Sacramento 2035 General Plan designates the project site as Employment Center Low Rise.

The project site is bordered by industrial buildings to the north, east, and west, by residential buildings to the south, and a vacant, ruderal lot to the west (Figure 3). The Bell Avenue Elementary School is located approximately 600 feet northwest of the project site.

The project site is located within the McClellan Heights and Parker Homes Special Planning District of the North Sacramento Community Plan area. The North Sacramento Community Plan[1] area is in the northeastern part of the City of Sacramento and encompasses approximately 13 square miles. Consistent with the 2035 General Plan, the North Sacramento Community Plan designates the project site as Employment Center Low Rise. The North Sacramento Community Plan area includes unique policies that are intended to supplement those contained in the 2035 General Plan.

Project Description

The owners of the parcel, Elite Truck Repair LLC, propose to construct a new truck service facility to provide minor truck service, truck parking, warehouse space, and administrative office space. The proposed project is being designed to provide service to electric powered trucks. The proposed truck service building is approximately 20,850 square feet and includes: a pre-engineered metal building combined with an office standard metal frame; five service bays along the northern building facade for minor repairs and service; a warehouse; truck driver and mechanic locker rooms, visiting trucker lounge and laundry; parts storage, storage area; administrative offices; and a dispatch office (Figure 4). The site would provide truck maintenance service, oil changes, brake service, alignments, and tire changes. Photovoltaic solar panels will be mounted on a “cool” roof. No emergency generators would be required for the facility.

The business would be operational 5 days a week, Monday through Friday from 6 am to 5 pm and would employ the use of a forklift and an air compressor. Noise generated operations would not occur out of during the daytime hours as per Sacramneto City noise ordinance (7:00 am to 10:00 pm) and are anticipated to be from 7 am to 5 pm.

Approximately 10 to 15 employees would be onsite daily. Approximately 40 vehicles (30 trucks and 10 cars) would be parked onsite.

Construction is anticipated to take approximately 10 to 12 months and is anticipated to begin in ~~spring/early~~ late summer 2023 with the proposed project operational in ~~late~~ early 202~~3~~4.

[1] City of Sacramento. *North Sacramento Community Plan.* March 2015.

Zoning and Land Use

The City of Sacramento zoning currently designates the parcel as Light Industrial (M-1-SPD) within the McClellan Heights and Parker Homes Special Planning District. The proposed project would be consistent with the current zoning and with the 2035 General Plan designation of Employment Center Low Rise.

Site Access and Parking

Regional access to the project site would be provided by Interstate 80 (I-80), which is located approximately 0.35-mile south of the project site. Primary site access would be provided from Rene Avenue by one proposed 45-foot-wide driveway centrally located along the southern frontage of the project site. The driveway would provide access to the loading and parking areas associated with the facility. Implementation of the proposed project would include roadway frontage improvements including sidewalk, curb, gutter, and planter strip along Rene Avenue that would tie to existing facilities to the east and west.

The proposed project would include approximately 20 car parking spaces which includes 1 Americans with Disabilities Act (ADA) compliant space and 60 truck parking spaces. Car parking spaces would be situated along the southern portions of the parcel, while the truck parking spaces would be situated along the north portion and the northern parts of the east and west portions of the site.

Utilities

A 10-inch sewer line and an 8-inch water line are present within the Rene Avenue right of way (ROW) to the south of the project site. Overhead electrical facilities are found at the frontage of the project site along Rene Avenue. Implementation of the proposed project would include connection of the proposed metal building structure to the existing utility infrastructure within the Rene Avenue ROW.

Stormwater within the site would be directed to a bio-retention area located along the eastern and northeastern corner of the site. The bio-retention area contains two drainage inlets connected to a 12-inch perforated drain pipe. The 12-inch drain pipe would be connected to the City's existing 42-inch stormwater drain located within the Rene Avenue ROW near its intersection with Dayton Street. A 10-foot buffer would surround the bio-retention area on all sides, separating it from the adjacent parcels on the north and east, the parking lot to the west, and the sidewalk and frontage improvements to the south. (Figure 4).

Landscaping and Fencing

New landscaping including trees, shrubs, and groundcover will be placed around the perimeter of the project site. All plants utilized in landscaping are listed as low or very low water users in the State of California Water Use Classification of Landscape Species database. It is anticipated trees will be planted along the perimeter surrounding the proposed project. Additionally, it is anticipated shrub and groundcover species will be interspersed with the trees. The bio-retention area will be vegetated and is anticipated to include manzanita, sedge, deer grass, and California rose.

Fencing will be utilized to secure the facility. Perimeter fencing at interior property lines will be 6-foot-high chain link with razor wire. Fencing facing Rene Avenue will be 6-foot-high steel tube fencing. A security gate will be present on the east side of the metal building to secure the back parking area and truck entry to the metal building. The gate will be a 35-foot-wide sliding gate. A concrete block trash enclosure with metal gates will be present along the eastern boundary of the parcel adjacent to the security gate.

A 6-foot-high noise barrier will be constructed along the western property line to an approximate length of 180 feet. A 10-foot-high noise barrier will be constructed along the eastern property line to an approximate length of of 245 feet. The barriers will be constructed of masonry block or material of similar density and usage with no visible air gaps at the base of the barrier or between construction materials.

Project Approvals

The proposed project includes the following discretionary entitlement approvals from the City of Sacramento:

- California Environmental Quality Act (CEQA) Approval through an Addendum to the 2035 General Plan Master EIR or adoption of an Initial Study/Mitigated Negative Declaration; and
- Approval of Site Plan and Design Review

Attachments
Attachment 1 – Proposed Project Vicinity

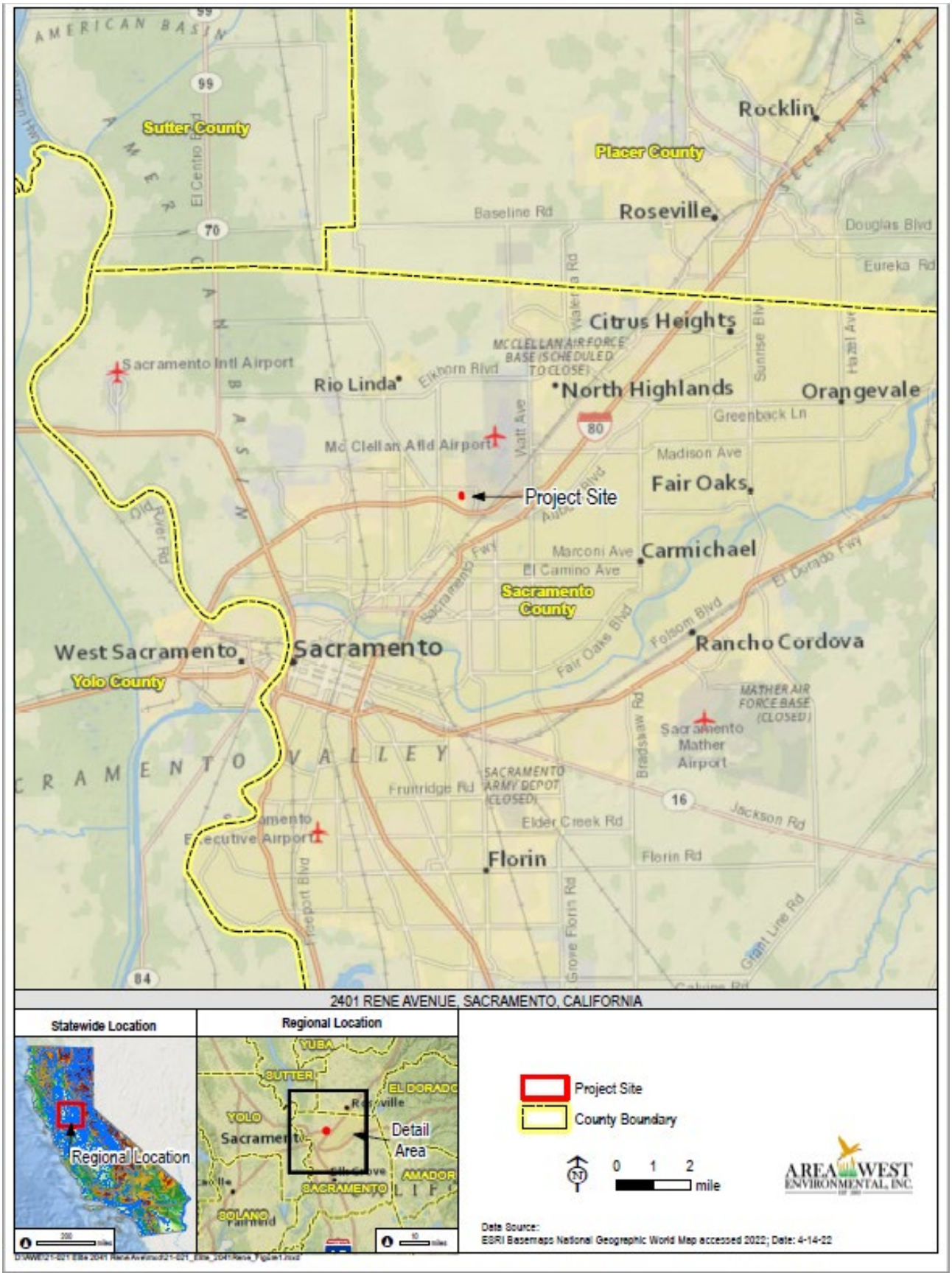
Attachment 2 – Proposed Project Location

Attachment 3 – Proposed Project Site

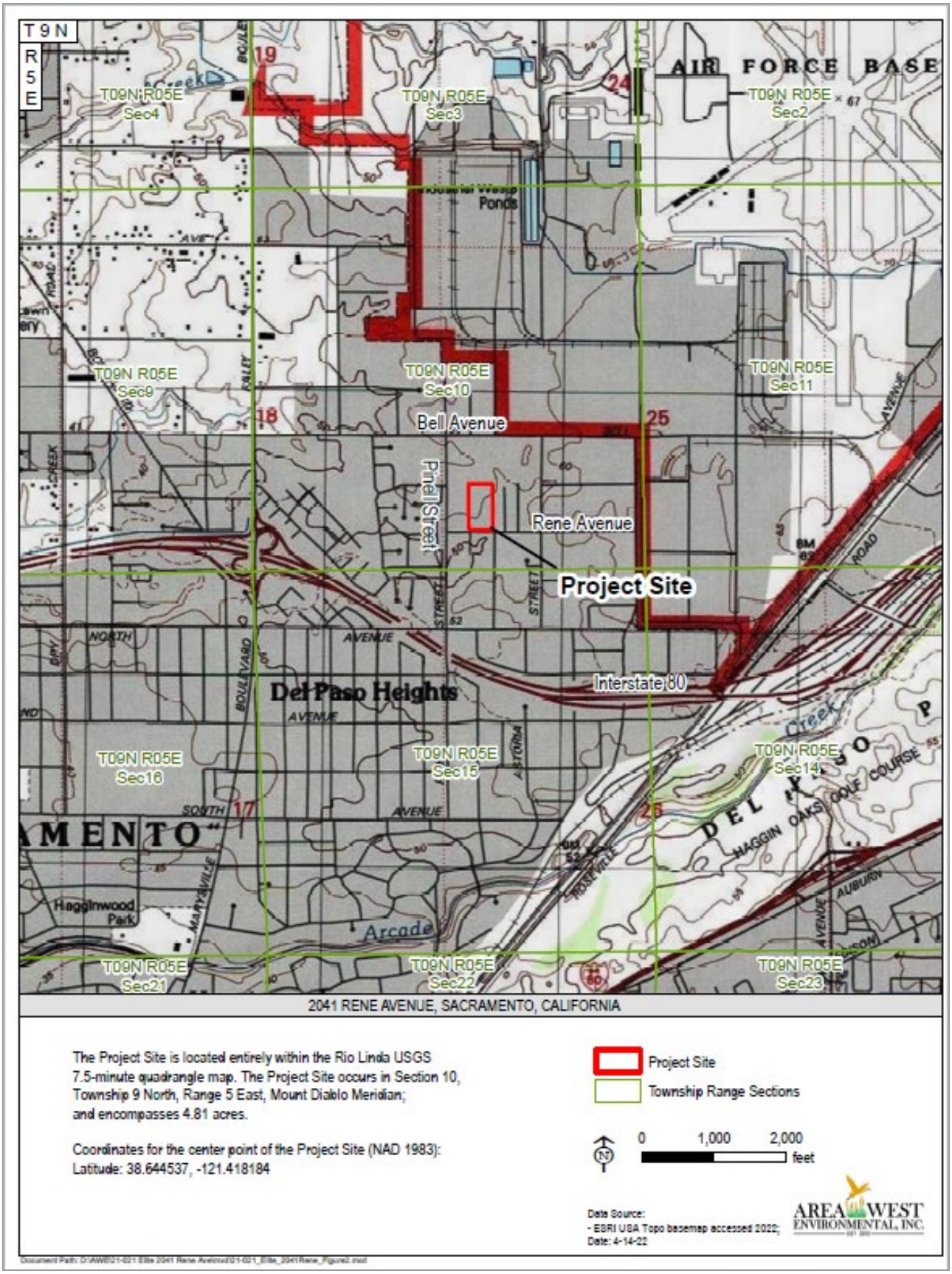
Attachment 4 – Proposed Site Plan

Attachment 5a – Proposed Preliminary Grading and Utilities Plan

Attachment 5b – Proposed Preliminary Grading and Utilities Plan

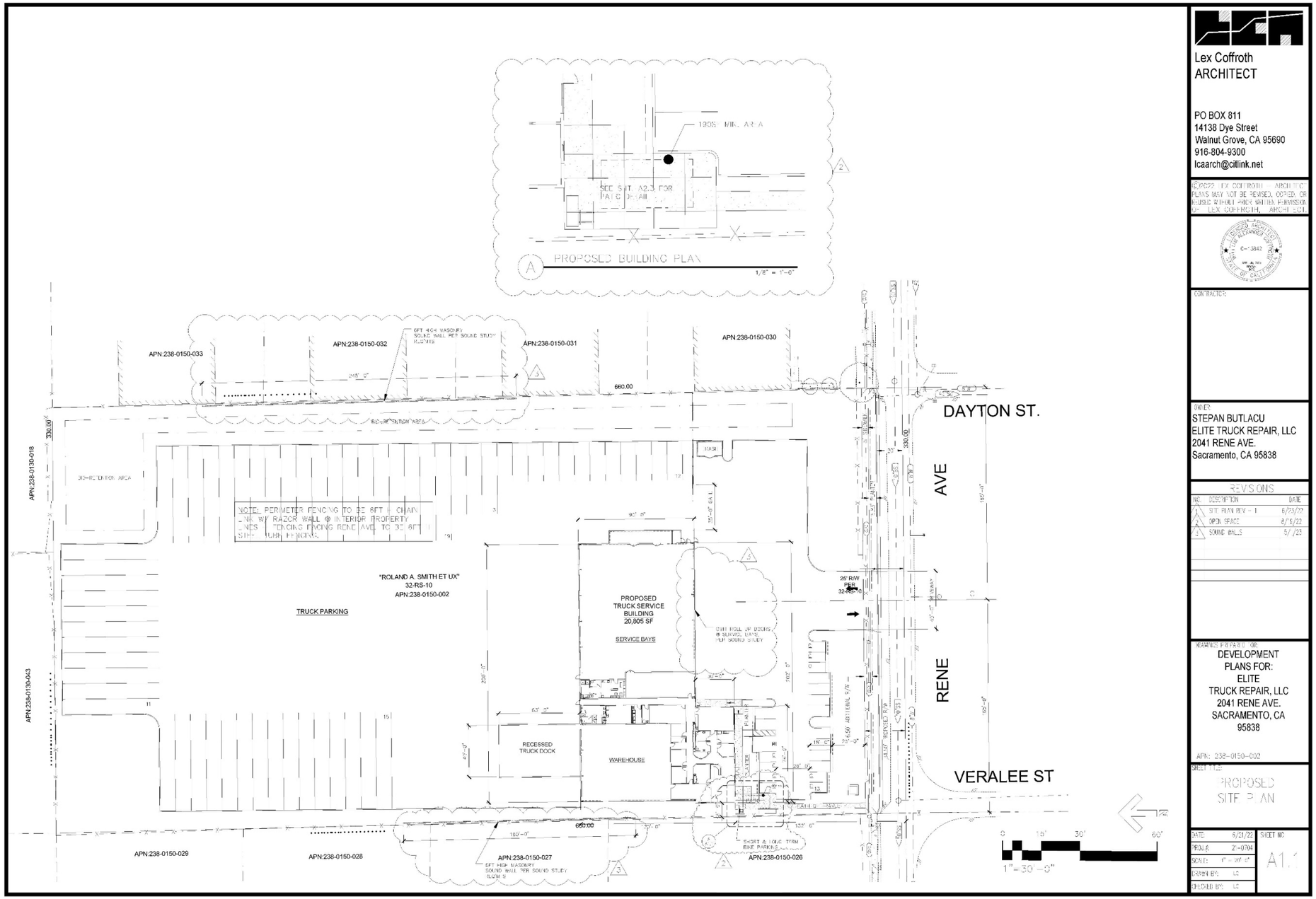


ATTACHMENT 1 – PROPOSED PROJECT VICINITY



ATTACHMENT 2 – PROPOSED PROJECT LOCATION

ATTACHMENT 3 – PROPOSED PROJECT SITE



Lex Coffroth
ARCHITECT

PO BOX 811
14138 Dye Street
Walnut Grove, CA 95690
916-804-9300
lcaarch@citlink.net

CONTRACTOR:

OWNER:
STEPAN BUTLACU
ELITE TRUCK REPAIR, LLC
2041 RENE AVE.
Sacramento, CA 95838

REVISIONS

NO.	DESCRIPTION	DATE
1	SIT PLAN REV - 1	6/23/22
2	OPEN SPACE	8/5/22
3	SOUND WALLS	5/ /23

DRAWINGS PREPARED FOR:
DEVELOPMENT PLANS FOR:
ELITE
TRUCK REPAIR, LLC
2041 RENE AVE.
SACRAMENTO, CA
95838

APN: 238-0150-002

SHEET TITLE:
PROPOSED SITE PLAN

DATE	6/23/22
PROJ.#	21-0704
SCALE	1" = 30'-0"
DRAWN BY:	LC
CHECKED BY:	LC

SHEET NO: A1.1

ATTACHMENT 4 – PROPOSED SITE PLAN

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT OF WAY	
	CENTER LINE	
○	MANHOLE	●
Ⓣ	TELEPHONE MANHOLE	
Ⓔ	ELECTRIC MANHOLE DRAIN	
	INLET	■
8"W	WATER LINE	8"W
CTV	CABLE TV CONDUITS LINE	
12"SD	DRAIN LINE	12"SD
6"SS	SEWER LINE	6"SS
50,81	COMBINED SERVICE LINE	18"CS
	FIRE HYDRANT	
	WATER VALVE	
	POST IND. VALVE	
	SEWER CLEAN OUT	
	WATER METER	M
	FIRE DEPT. CONNECTION	
	ENLARGER/REDUCER	
	THRUST BLOCK	
	CONCRETE CURB	
SPOT	SPOT ELEVATION	35.25 FG
RIDGE	RIDGE LINE	RIDGE
	TOP OF PAVEMENT	46.50 TP
	TOP OF WALK	46.50 TW
	EDGE OF PAVEMENT	
	DRAINAGE DIRECTION	
	SIGNAL LIGHT	
	PARKING LIGHT	
UGT	U.G. TELEPHONE LINE	
UGE	U.G. ELECTRIC LINE	
	PULL BOX	
	UTILITY POLE	
G	GAS METER	
CTV	CABLE TV BOX	
	UTILITY POLE W/GUY	
	PUBLIC STREET LIGHT	
	SIGN	
	FENCE	
	WALL	
	GUARD POST	
	BENCH MARK	
	TREE TO BE REMOVED	
	TREE	
	VAULT	
	LANDSCAPE DRAIN	

ABBREVIATIONS

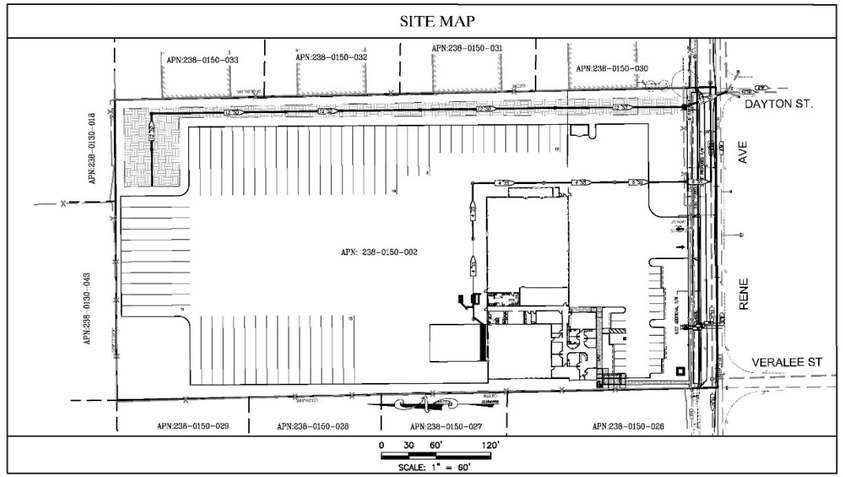
AB	AGGREGATE BASE	PCC	PORTLAND CEMENT CONCRETE
ABS	ACRYLONITRILE-BUTADIENE-STYRENE	PVC	POLYVINYL CHLORIDE
AC	ASPHALTIC CONCRETE	R	RADIUS
AD	AREA DRAIN	R/W	RIGHT OF WAY
BW	BOTTOM OF WALL	RWL	RAIN WATER LEADER
COTG	CLEANOUT (TO GRADE)	RP	REDUCED PRESSURE
CL	CENTERLINE	S	SEWER
DCA	DOUBLE CHECK ASSEMBLY	S=	SLOPE
DI	DRAIN INLET	SD	STORM DRAIN
E	EXISTING	SDCO	STORM DRAIN CLEANOUT
FDC	FIRE DEPT CONNECTION	SOV	SHUT OFF VALVE
FF	FINISHED FLOOR	SS	SANITARY SEWER
FH	FIRE HYDRANT	SSCO	SANITARY SEWER CLEANOUT
FL	FLOWLINE	T	TRANSFORMER
FS	FIRE SERVICE	TG	TOP OF GRATE
GB	GRADE BREAK	TW	TOP OF WALK
GD	GUTTER DRAIN	W	WATER
GR	GRATE	WM	WATER METER
HP	HIGH POINT	WS	WATER SERVICE
LF	LINEAL FEET	VCP	VITRIFIED CLAY PIPE
MH	MANHOLE	SRCP	SANTA ROSA CAST PRODUCT
NTS	NOT TO SCALE		
PL	PROPERTY LINE		
PIV	POST INDICATOR VALVE		

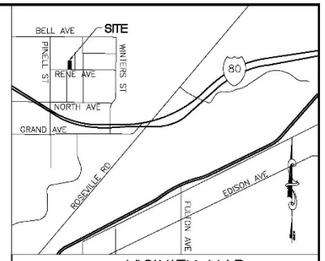
ONSITE IMPROVEMENT PLANS FOR:

2041 RENE AVE

CITY OF SACRAMENTO, CALIFORNIA

SITE MAP





VICINITY MAP
NO SCALE

SHEET INDEX

SEE OFF-SITE PLANS FOR ANY WORK WITHIN THE CITY RIGHT-OF-WAY.

CAUTION AND CONFLICT NOTE:

TO AVOID CONSTRUCTION DELAYS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POTHOLE AND EXPOSE ALL EXISTING UTILITIES AT ALL POTENTIAL CONFLICT POINTS, EITHER SHOWN ON THE PLANS OR MARKED ON THE GROUND BY USA NORTH (UNDERGROUND SERVICE ALERT – DIAL 811), PRIOR TO ORDERING ANY MATERIALS OR SCHEDULING GENERAL EXCAVATION FOR UTILITY INSTALLATION. CONTRACTOR SHALL ALLOCATE SUFFICIENT TIME AND BUDGET TO VERIFY LOCATION/ELEVATION OF POTHOLED UTILITIES, AND IF CONFLICTS EXIST, ALLOW THE ENGINEER TO DETERMINE AN ALTERNATE SOLUTION BY PROVIDING WRITTEN DOCUMENTATION OF THE ELEVATION AND LOCATION OF SURVEYED CONFLICTS. THE CONTRACTOR SHALL BEGIN INSTALLATION OF GRAVITY-STORM/SANITARY SEWER UTILITIES ONLY AT THE DOWNSTREAM POINT-OF-CONNECTION, AND PROCEED TO LAY PIPE IN THE UPSTREAM DIRECTION TO THE NEXT STRUCTURE (E.G. MANHOLE) ONLY AFTER ALL POTENTIAL UPSTREAM CONFLICTS HAVE BEEN ASCERTAINED, INCLUDING VERIFYING THE FEASIBILITY OF CONNECTION TO ALL AS-BUILT PLUMBING STUBS ALONG THE PERIMETER OF A BUILDING'S FOUNDATION.

UTILITY CONTACTS

TELEPHONE	AT&T	(916) 972-2142
GAS	PG&E	(925) 244-3613
ELECTRICITY	SMUD	(916) 732-6321
WATER	CITY OF SAC. LORENZO HERNANDEZ	(916) 808-4939
CABLE	AT&T BROADBAND	(916) 648-8350
DRAINAGE	CITY OF SAC. LORENZO HERNANDEZ	(916) 808-4939
SEWER	CITY OF SAC. LORENZO HERNANDEZ	(916) 808-4939
FIRE	CITY OF SACRAMENTO	(916) 808-1300
UNDERGROUND SERVICE ALERT	UNDERGROUND SERVICE ALERT	(800) 227-2600

BENCHMARK ELEV. 54.05 (NAVD1988)
BV 278-B1B
HILTI NAIL LIGHT BASE NW CORNER BELOIT DRIVE AND BELL AVENUE (1989)
NGVD 1929: 51.895
NAVD 1988: 54.054
DIFFERENCE: 2.18
FIELD BOOK NO.____ PG.____

JTS ENGINEERING CONSULTANTS, INC.
1808 J STREET
SACRAMENTO CALIFORNIA 95811 (916) 441-6708

DESIGNED: DVN
DRAWN: DVN
CHECKED: JTS
SUBMITTED: JAVED T. SIDDIQUI, P.E. 25924
SCALE: NOTED

JAVED T. SIDDIQUI, No.25924, Expires 12-31-23, CIVIL, STATE OF CALIFORNIA

NO	DATE	REVISION	APPROVAL	BY

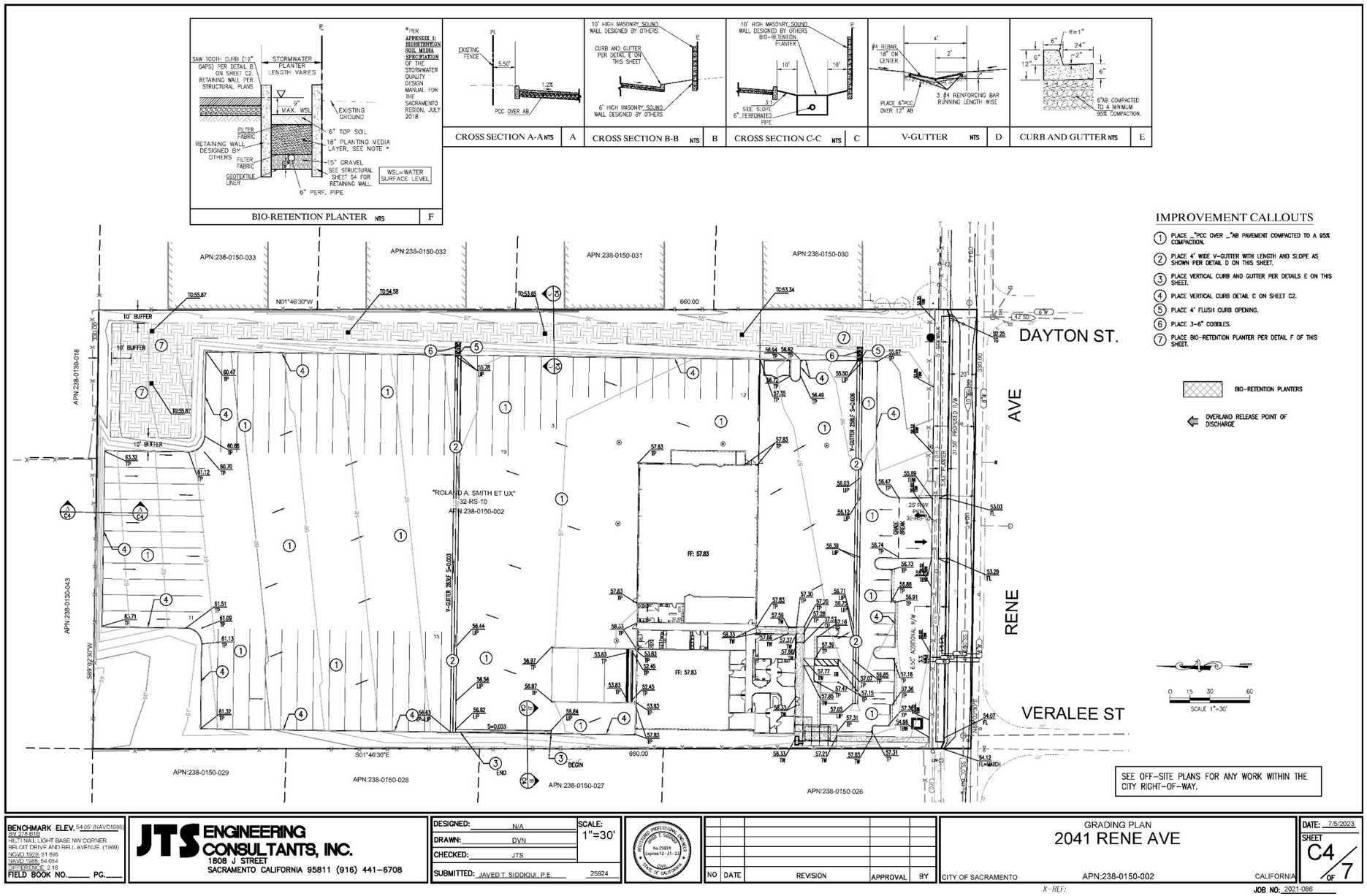
COVER SHEET
2041 RENE AVE
CITY OF SACRAMENTO APN:238-0150-002 CALIFORNIA

X-REF:

DATE: 7/5/2023
SHEET C1 OF 7

JOB NO: 2021-086

ATTACHMENT 5A – PROPOSED PRELIMINARY GRADING AND UTILITIES PLAN



ATTACHMENT 5B – PROPOSED PRELIMINARY GRADING AND UTILITIES PLAN

SECTION III – ENVIRONMENTAL CHECKLIST AND DISCUSSION

LAND USE, POPULATION AND HOUSING, AGRICULTURAL AND FOREST RESOURCES, WILDFIREE, AND ENERGY

Introduction

The California Environmental Quality Act (CEQA) requires the Lead Agency to examine the effects of a project on the physical conditions that exist within the area that would be affected by the project. CEQA also requires a discussion of any inconsistency between the proposed project and applicable general plans and regional plans.

An inconsistency between the proposed project and an adopted plan for land use development in a community would not constitute a physical change in the environment. When a project diverges from an adopted plan, however, it may affect planning in the community regarding infrastructure and services, and the new demands generated by the project may result in later physical changes in response to the project.

In the same manner, the fact that a project brings new people or demand for housing to a community does not, by itself, change the physical conditions. An increase in population may, however, as an example generate changes in retail demand or demand for governmental services, and the demand for housing may generate new activity in residential development. Physical environmental impacts that could result from implementing the proposed project are discussed in the appropriate technical sections.

This section of the initial study identifies the applicable land use designations, plans and policies, and permissible densities and intensities of use, and discusses any inconsistencies between these plans and the proposed project. This section also discusses agricultural resources and energy, and the effect of the project on these resources.

Discussion

Land Use and Planning

The project site has been designated as **Employment Center Low Rise** (**ECLR**) in the 2035 General Plan and is zoned **Light Industrial (M-1-SPD)**.

The project site is located in an urbanized portion of the community. The project site is currently vacant and highly disturbed due to regular disking for weed abatement. The project site is zoned as Light Industrial/Special Planning District (M-1-SPD). The Sacramento 2035 General Plan designates the project site as Employment Center Low Rise. The project site is bordered by industrial buildings to the north, east, and west, by residential buildings to the south, and a vacant, ruderal lot to the west (Figure 3). The Bell Avenue Elementary School is located approximately 600 feet northwest of the project site. Development of the site as proposed would alter the existing landscape, but the project site has been designated for urban development in the 2035 General Plan and the Planning and Development Code, and the proposed development is consistent with these planning designations.

Population and Housing

The project site is located within a developed area of the northeastern portion of Sacramento, approximately 6 miles northeast of downtown Sacramento. Surrounding land uses include single-family residential, commercial, and light industrial uses. An elementary school is located approximately 600 feet northwest of the project site. The proposed project would include the construction of a 20,850 square foot metal building and associated site improvements. The proposed project is consistent with the type and intensity of use in the City's General Plan that was analyzed in the associated Master EIR. The physical impacts with the implementation of the proposed project are addressed throughout this IS/MND. The project site is currently vacant and highly disturbed. Implementation of the proposed project would not displace substantial numbers of existing housing units or people and construction or replacement of housing elsewhere would not be required for the proposed project. Therefore, the proposed project would not result in impacts related to Population and Housing.

Agricultural Resources and Forest Resources

The Master EIR discussed the potential impact of development under the 2035 General Plan on agricultural resources. See Master EIR, Chapter 4.1. In addition to evaluating the effect of the general plan on sites within the City, the Master EIR noted that to the extent the 2035 General Plan accommodates future growth within the City limits, the conversion of farmland outside the City limits is minimized. The Master EIR concluded that the impact of the 2035 General Plan on agricultural resources within the City was less than significant.

The project site does not contain soils designated as Important Farmland (i.e., Prime Farmland, Unique Farmland or Farmland of Statewide Importance)[b]. The site is not zoned for agricultural uses, and there are no Williamson Act contracts that affect the project site. No existing agricultural or timber-harvest uses are located on or in the vicinity of the project site. Development of the site would result in no impacts on agricultural resources.

Wildfire

The Master EIR does not identify any significant impacts related to wildfire risk. Per the CAL FIRE Fire and Resources Assessment Program (FRAP), the City of Sacramento is located within a Local Responsibility Area (LRA). The City is not located within or adjacent to a State Responsibility Area (SRA) or a designated Very High Fire Hazard Severity Zone (VHFHSZ). Furthermore, the project site is located within a developed area where a substantial wildland-urban interface does not exist. Thus, the risk of wildfire at the project site is minimal. Based on the above, the proposed project would not create a substantial risk for existing development in the project vicinity. Therefore, the proposed project would not result in impacts related to Wildfire.

Energy

The buildings associated with the proposed project would be subject to Titles 20 and 24 of the California Code of Regulations, which reduce demand for electrical energy by implementing energy-efficient standards for residential and non-residential buildings. The 2035 General Plan includes goals (see 2035 General Plan Energy Resources Goal U 6.1.1) and related policies to encourage energy-efficient technology by offering rebates and other incentives to commercial and residential developers, coordination with local utility providers, and recruitment of businesses that research and promote energy conservation and efficiency.

The Master EIR discussed energy conservation and relevant General Plan policies in Section 6.3 (page 6-3). The discussion concluded that with implementation of the General Plan policies and energy regulation (e.g., Title 24), development allowed in the General Plan would not result in the inefficient, wasteful, or unnecessary consumption of energy.

The Master EIR concluded that implementation of State regulations, coordination with energy providers, and implementation of General Plan policies would reduce the potential impacts from construction of new energy production or transmission facilities to a less-than-significant level. The proposed project would be consistent with the type and intensity of development anticipated for the site in the General Plan and meet the energy efficiency standards required by Title 24; therefore, the proposed project would not result in the inefficient, wasteful, or unnecessary consumption of energy.

[b] U.S. Department of Agriculture, National Resources Conservation Service. *Web Soil Survey.* 2022

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
1. AESTHETICS Would the proposal: A) Create a source of glare that would cause a public hazard or annoyance?			X
B) Create a new source of light that would be cast onto oncoming traffic or residential uses?			X
C) Substantially degrade the existing visual character of the site or its surroundings?			X

ENVIRONMENTAL SETTING

The proposed project is located on the north side of Rene Avenue, generally between Pinell Street to the west and Astoria Street to the east, within the North Sacramento Community Plan's McClellan Heights/Parker Homes neighborhood. The project site is bordered to the north, east, and west by light industrial development, and single-family residences to the south. The project site is currently vacant and is regularly mowed for weed abatement. As such, the project site has been regularly disturbed.

Public views of the project site include views from motorists, bicyclists, and pedestrians travelling on Rene Avenue along the southern project site frontage. Private views of the project site would include those from the single-family residences on the south side of Rene Avenue. Given the project site is vacant there are no existing sources of light and glare within the project site.

The Department of Transportation (Caltrans) manages the State Scenic Highway System which provides guidance and assists local government agencies with the process to officially designate scenic highways. According to Caltrans, designated scenic highways are not located in proximity to the project site. Given the vacant and highly disturbed nature of the project site, it does not contain scenic resources. The project site is not located in an area designated as a scenic resource or vista, and is not visible from any State Scenic Highway.

STANDARDS OF SIGNIFICANCE

The significance criteria used to evaluate the project impacts to aesthetics are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines, thresholds of significance adopted by the City in applicable general plans and previous environmental documents, and professional judgment. A significant impact related to aesthetics would occur if the project would:

- substantially interfere with an important scenic resource or substantially degrade the view of an existing scenic resource; or
- create a new source of substantial light or glare that is substantially greater than typical urban sources and could cause sustained annoyance or hazard for nearby sensitive receptors.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR described the existing visual conditions in the general plan City of Sacramento, and the potential changes to those conditions that could result from development consistent with the 2035 General Plan. See Master EIR, Chapter 4.13, Visual Resources.

The Master EIR identified potential impacts for light and glare (Impact 4.13-1) and concluded that impacts would be less than significant.

ANSWERS TO CHECKLIST QUESTIONS

Questions A and B

According to the Master EIR, the City of Sacramento is mostly built out, and a large amount of widespread, ambient light from urban uses already exists. New development permitted under the 2035 General Plan would add sources of light that are similar to the existing urban light sources from any of the following: exterior building lighting, new street lighting, parking lot lights, and headlights of vehicular traffic. Sensitive land uses would generally be residential uses, especially single- and multi-family residential uses. As such, the single-family residences located to the south of the site would be considered sensitive receptors to proposed project-generated light and glare. Potential new sources of light associated with development and operation of the proposed project would be similar to adjacent light industrial uses to the east and west of the project site respectively. Such sources would likely include, but not be limited to, building lighting, drive aisle lighting, vehicle headlights, and glare from reflective surfaces such as vehicle windshields and building windows.

The City's 2035 General Plan encourages infill development within the City. Infill development would serve to concentrate growth within those areas of the City that are currently well-lit, and lighting resulting from infill development under the General Plan would be similar to the existing character of urban lighting. Given that the proposed project would be consistent with the project site's existing Employment Center Low Rise land use designation, introduction of new sources of light and glare to the site has been previously addressed in the Master EIR. Furthermore, new development allowed under the 2035 General Plan would be subject to General Plan policies, building codes, and design review, all of which would ensure that new sources of light within the project site would be properly designed so as not to result in substantial increases in light or spillover of light into adjacent parcels. The Visual Resources section of the Master EIR addresses lighting and glare standards for development projects. Policy ER 7.1.3: Lighting requires the City to minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary, and requiring light for development to be directed downward to minimize spill-over onto adjacent properties and reduce vertical glare. In addition, Policy ER 7.1.4: Reflective Glass prohibits new development from resulting in any of the following: (1) using reflective glass that exceeds 50 percent of any building surface and on the bottom three floors; (2) using mirrored glass; (3) using black glass that exceeds 25 percent of any surface of a building; (4) using metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building; and (5) using exposed concrete that exceeds 50 percent of any building. The proposed project would be required to comply with the aforementioned General Plan policies, which would be ensured through the Site Plan and Design Review process.

Based on the above, while the proposed project would introduce new sources of light and glare to the project site, the type and intensity of light and glare would be similar to that of the surrounding commercial developments and would be consistent with what has been anticipated for the site per the 2035 General Plan and analyzed in the Master EIR. The proposed project would comply with all applicable General Plan policies related to minimizing light and glare, and compliance with such policies would be ensured during the design review for the proposed project. Therefore, the proposed project would have ***no additional significant environmental effects*** related to sources of glare.

Question C

The City of Sacramento is primarily built out; however, new development associated with the 2035 General Plan could result in changes to important scenic resources as seen from visually sensitive locations.

Important existing scenic resources within the City include major natural open space features such as the American River and Sacramento River, including associated parkways. Another important scenic resource is the State Capitol (as defined by the Capitol View Protection Ordinance). Other potential important scenic resources include important historic structures listed on the Sacramento Register of Historic and Cultural Resources, California and/or National Registers.

Visually-sensitive public locations include viewpoints where a change to the visibility of an important scenic resource, or a visual change to the resource itself, would affect the general public. Visually-sensitive public locations include public plazas, trails, parks, parkways, or designated, publicly available and important scenic corridors (e.g., Capitol View Protection Corridor).

Policy ER 7.1.1 is designed to guide the City to avoid or reduce substantial adverse effects of new development on views from public places, to the Sacramento and American Rivers and adjacent greenways, landmarks, and the State Capitol along Capitol Mall. In addition, Policy ER 7.1.2, states that the City shall require new development be located and designed to visually complement the natural environment/setting when near the Sacramento and American Rivers, and along streams. With adherence to these policies, buildout of the 2035 General Plan would not substantially alter views of important scenic resources from visually sensitive areas. According to the Master EIR, with buildout of the 2035 General Plan, impacts related to interference with important existing scenic resources or degrading views of important existing scenic resources, as seen from a visually sensitive, public location would be less than significant.

The proposed project is not located in the vicinity of any significant visual resources such as the American River, Sacramento River, State Capitol, or public trails. Thus, the proposed project would not result in any impacts related to changing the visual character of such resources. The nearest park located outside of a school is Five Star Park located approximately 1,700 feet west of the project site. Views of the project site are largely obscured by intervening residential structures and accessory uses between the project site and the park. Thus, implementation of the proposed project would not significantly alter views from Five Star Park. Other parks, such as Main Avenue Park, Mama Marks Park, and Robla Community Park are located in the project region, but none of the foregoing parks afford views of the project site.

The project site is currently vacant and has been disturbed through regular mowing for weed abatement. The 2035 General Plan designates the site as Employment Center Low Rise which permits employment generating uses that generally do not produce loud noise or noxious odors; acceptable uses include industrial or manufacturing uses, office space, retail and service uses, and public or quasi-public uses. The construction of a metal warehouse building associated with the proposed project would be consistent with the permitted land use designation for the site and compatible with existing commercial and industrial uses located to the west and north of the site. Therefore, the proposed project would not contribute to the degradation of the visual character of the site and surrounding areas.

Furthermore, City staff would conduct Site Plan and Design Review prior to implementation of the proposed project. As noted in Chapter 17.808 of the Sacramento City Code, the purpose of Site Plan and Design Review is to ensure that the physical aspects of development projects are consistent with the General Plan and any other applicable specific plans or design guidelines, that projects are high quality and compatible with surrounding development, among other considerations. Accordingly, Site Plan and Design Review for the proposed project would ensure that the proposed development would not result in a substantial degradation in the existing visual character of the project site.

Therefore, potential impacts to the visual character of the site and its surroundings associated with development of the site with light industrial uses have been previously analyzed in the Master EIR, and the proposed project would have ***no additional significant environmental effects*** beyond what was anticipated for the site in the Master EIR.

MITIGATION MEASURES
None Required
FINDINGS
The proposed project would have no additional project-specific environmental effects relating to Aesthetics. Therefore, implementation of the proposed project would result in ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
2. AIR QUALITY *Would the proposal:* A) Result in construction emissions of NO_x above 85 pounds per day?			X
B) Result in operational emissions of NO_x or ROG above 65 pounds per day?			X
C) Violate any air quality standard or have a cumulatively considerable contribution to an existing or projected air quality violation?			X
D) Result in PM_{10} and $PM_{2.5}$ concentrations that exceed SAMQMD requirements?			X
E) Result in CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm)?			X
F) Result in exposure of sensitive receptors to substantial pollutant concentrations?			X
G) Result in TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources?			X

ENVIRONMENTAL SETTING

The City of Sacramento is located within the Sacramento Valley Air Basin (SVAB), which is a valley bounded by the North Coast Mountain Ranges to the west and the Northern Sierra Nevada Mountains to the east. The terrain in the valley is flat and approximately 25 feet above sea level.

Hot, dry summers and mild, rainy winters characterize the Mediterranean climate of the Sacramento Valley. Throughout the year, daily temperatures may fluctuate by 30 degrees Fahrenheit with summer highs often exceeding 100 degrees and winter lows occasionally below freezing. Average annual rainfall is about 20 inches and snowfall is very rare. Summertime temperatures are normally moderated by the presence of the "Delta breeze" that arrives through the Carquinez Strait in the evening hours.

The mountains surrounding the SVAB create a barrier to airflow, which can trap air pollutants in the valley. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in a stable volume of air. The surface concentrations of pollutants are highest when these conditions are combined with temperature inversions that trap cooler air and pollutants near the ground.

The warmer months in the SVAB (May through October) are characterized by stagnant morning air or light winds, and the Delta breeze that arrives in the evening out of the southwest. Usually, the evening breeze transports a portion of airborne pollutants to the north and out of the Sacramento Valley. During about half

of the day from July to September, however, a phenomenon called the "Schultz Eddy" prevents this from occurring. Instead of allowing the prevailing wind patterns to move north carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern to circle back south. This phenomenon exacerbates the pollution levels in the area and increases the likelihood of violating Federal or State standards. The Schultz Eddy normally dissipates around noon when the Delta breeze begins.

Criteria Air Pollutants

Concentrations of emissions from criteria air pollutants (the most prevalent air pollutants known to be harmful to human health) are used to indicate the quality of the ambient air. Criteria air pollutants include ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable and fine particulate matter (PM_{10} and $PM_{2.5}$), and lead. The sources of criteria air pollutants and their respective acute and chronic health impacts are described in Table AIR-1.

Table AIR-1
Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	Increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	Permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	Headache, dizziness, fatigue, nausea, vomiting, death	Permanent heart and brain damage
Nitrogen dioxide (NO_2)	Combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	Coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	Chronic bronchitis, decreased lung function
Sulfur dioxide (SO_2)	Coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO2 exposure to chronic health impacts
Respirable particulate matter (PM_{10}), Fine particulate matter ($PM_{2.5}$)	Fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO2 and ROG	Breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	Alterations to the immune system, carcinogenesis
Lead	Metal processing	Reproductive/developmental effects (fetuses and children)	Numerous effects including neurological, endocrine, and cardiovascular effects

Table AIR-1
Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases.
1. "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.
2. "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.
Source: Environmental Protection Agency 2018

Existing Air Quality

The U.S. Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970 and most recently amended by Congress in 1990. The CAA required EPA to establish the National Ambient Air Quality Standards (NAAQS) for the following criteria air pollutants: ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. CAA also requires each State to prepare a State implementation plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. Individual SIPs are modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies.

The California Air Resources Board (CARB) is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish its own California Ambient Air Quality Standards (CAAQS). CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS.

The SVAB is under the jurisdiction of the Sacramento Metrolpolitan Air Quality Management District (SMAQMD). The SVAB is currently designated as nonattainment for the NAAQS 8-hour ozone standard and the CAAQS for both 1-hour and 8-hour O_3 standard. The SVAB is also currently designated as nonattainment for both NAAQS and CAAQS 24-hour PM_{10} standards. In addition, the SVAB is currently designated as nonattainment for the NAAQS 24-hour $PM_{2.5}$ standard. The air basin is designated as unclassified or in attainment for the remaining criteria air pollutants[c].

Toxic Air Contaminants

According to the California Almanac of Emissions and Air Quality[d], the majority of the estimated health risks from toxic air contaminants (TACs) can be attributed to relatively few compounds, the most important being diesel particulate matter (diesel PM). Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

[c] Sacramento Metropolitan Air Quality Management District. *CEQA Guidance & Tools.* 2019
[d] California Air Resources Board. *Almanac of Emissions & Air Quality.* 2013

Sensitive Receptors

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants. The closest sensitive receptors to the project site include the single-family residences approximately 70 feet to the south of the project site and the Bell Avenue Elementary School approximately 600 feet northwest of the project site.

Greenhouse Gases

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. GHGs are responsible for "trapping" solar radiation in the earth's atmosphere, a phenomenon known as the greenhouse effect. Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. Emissions of GHGs contributing to global climate change are attributable, in large part, to human activities associated with on-road and off-road transportation, industrial/manufacturing, electricity generation by utilities and consumption by end users, residential and commercial on-site fuel usage, and agriculture and forestry. Emissions of CO_2 are, largely, byproducts of fossil fuel combustion.

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

Several regulations currently exist related to GHG emissions, predominantly Assembly Bill (AB) 32, Executive Order S-3-05, and Senate Bill (SB) 32. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. Executive Order S-3-05 established the GHG emission reduction target for the State to reduce to the 2000 level by 2010, the 1990 level by 2020 (AB 32), 40 percent below the 1990 level by 2030, and to 80 percent below the 1990 level by 2050 (SB 32).

To meet the statewide GHG emission targets, the City adopted the City of Sacramento Climate Action Plan (CAP) on February 14, 2012 to comply with AB 32. The CAP identified how the City and the broader community could reduce Sacramento's GHG emissions and included reduction targets, strategies, and specific actions. In 2015, the City of Sacramento adopted the 2035 General Plan Update. The update incorporated measures and actions from the CAP into Appendix B, General Plan CAP Policies and Programs, which includes citywide policies and programs that are supportive of reducing GHG emissions.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, air quality impacts may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of 2035 General Plan policies:

- Construction emissions of Nox above 85 pounds per day;
- Operational emissions of Nox or ROG above 65 pounds per day;
- Violation of any air quality standard or contribute substantially to an existing or projected air quality violation;

- Any increase in PM10 concentrations, unless all feasible Best Available Control Technology (BACT) and Best Management Practices (BMPs) have been applied, then increases above 80 pounds per day or 14.6 tons per year;
- CO concentrations that exceed the 1-hour State ambient air quality standard (i.e., 20.0 ppm) or the 8-hour State ambient standard (i.e., 9.0 ppm); or
- Exposure of sensitive receptors to substantial pollutant concentrations.

Ambient air quality standards have not been established for toxic air contaminants (TAC). TAC exposure is deemed to be significant if:

- TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources.

A project is considered to have a significant effect relating to greenhouse gas emissions if it fails to satisfy the requirements of the City's Climate Action Plan.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR addressed the potential effects of the 2035 General Plan on ambient air quality and the potential for exposure of people, especially sensitive receptors such as children or the elderly, to unhealthful pollutant concentrations. See Master EIR, Chapter 4.2.

Policies in the 2035 General Plan in Environmental Resources were identified as mitigating potential effects of development that could occur under the 2035 General Plan. For example, Policy ER 6.1.1 calls for the City to work with the California Air Resources Board and the SMAQMD to meet state and federal air quality standards; Policy ER 6.1.2 requires the City to review proposed development projects to ensure that the projects incorporate feasible measures that reduce construction and operational emissions; Policy ER 6.1.4 and ER 6.1.11 calls for coordination of City efforts with SMAQMD; and Policy ER 6.1.15 requires the City to give preference to contractors using reduced-emission equipment.

The Master EIR identified exposure to sources of toxic air contaminants (TAC) as a potential effect. Policies in the 2035 General Plan would reduce the effect to a less-than-significant level. The policies include ER 6.1.4, requiring coordination with SMAQMD in evaluating exposure of sensitive receptors to TACs, and impose appropriate conditions on projects to protect public health and safety; as well as Policy LU 2.7.5 requiring extensive landscaping and trees along freeways fronting elevation and design elements that provide proper filtering, ventilation, and exhaust of vehicle air emissions from buildings.

The Master EIR found that greenhouse gas emissions that would be generated by development consistent with the 2035 General Plan would contribute to climate change on a cumulative basis. Policies of the General Plan identified in the Master EIR that would reduce construction related GHG emissions include: ER 6.1.2, ER 6.1.11 requiring coordination with SMAQMD to ensure feasible mitigation measures are incorporated to reduce GHG emissions, and ER 6.1.15 providing air quality education to the public. The 2035 General Plan incorporates the GHG reduction strategy of the 2012 Climate Action Plan (CAP), which demonstrates compliance mechanism for achieving the City's adopted GHG reduction target of 15 percent below 2005 emissions by 2020. Policy ER 6.1.8 commits the City to assess and monitor performance of GHG emission reduction efforts beyond 2020, and progress toward meeting long-term GHG emission reduction goals, ER 6.1.9 also commits the City to evaluate the feasibility and effectiveness of new GHG emissions reduction measures in view of the City's longer-term GHG emission reductions goal. The discussion of greenhouse gas emissions and climate change in the 2035 General Plan Master EIR are incorporated by reference in this Initial Study. (CEQA Guidelines Section 15150)

The Master EIR identified numerous policies included in the 2035 General Plan that addressed greenhouse gas emissions and climate change. See Draft Master EIR, Chapter 4.14, and pages 4.14-1 et seq. The Master EIR is available for review online at http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports

ANSWERS TO CHECKLIST QUESTIONS

Question A

In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants that the area is designated nonattainment, the SMAQMD has established recommended thresholds of significance, including mass emission thresholds for construction- related and operational ozone precursors (i.e., reactive organic compounds [ROG] and oxides of nitrogen [NOX], as the area is under nonattainment for ozone. The SMAQMD's recommended thresholds of significance for ROG and NOX are in units of pounds per day (lbs/day) and are presented in Table AIR-2.

Table AIR-2
SMAQMD Thresholds of Significance for Ozone Precursors

Pollutant	Construction Thresholds	Operational Thresholds
NOX	85 lbs/day	65 lbs/day
ROG	-	65 lbs/day

Source: Sacramento Metropolitan Air Quality Management District, SMAQMD Thresholds of Significance Table, May 2015, available at: http://www.airquality.org/ceqa/CH2ThresholdsTables5-2015.pdf, accessed August 2022.

In order to determine whether the proposed project would result in ozone emissions in excess of the applicable thresholds of significance presented above, the proposed project's construction- related and operational emissions have been estimated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0 software – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including trip generation rates based on the Institute of Transportation Engineers (ITE) Manual, vehicle mix, trip length, average speed, etc. However, where project-specific data is available, such data should be input into the model. Accordingly, data provided by the applicant was utilized within the model.

The results of the proposed project's emissions estimates were compared to the thresholds of significance above in order to determine the associated level of impact. All CalEEMod modeling results are included as Appendix A to this IS/MND.

Construction Emissions

During construction of the proposed project, various types of equipment and vehicles would temporarily operate on the project site. Construction exhaust emissions would be generated from construction equipment, vegetation clearing and earth movement activities, construction workers' commute, and construction material hauling for the entire construction period. The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants. Because construction equipment emits relatively low levels of ROG and because ROG emissions from other construction processes (e.g., asphalt paving, architectural coatings) are typically regulated by SMAQMD, SMAQMD has not adopted a construction emissions threshold for ROG. The SMAQMD has, however, adopted a construction emissions threshold for NOX, as shown in Table AIR-2, above.

According to the CalEEMod results, the proposed project is estimated to result in maximum daily construction emissions of NOX as shown in Table AIR-3.

Table AIR-3
Maximum Unmitigated Project Construction NOX Emissions

Pollutant	Project Emissions (lbs/day)	SMAQMD Threshold of Significance (lbs/day)
NOX	16.42	85
Source: CalEEMod, August 2022 (see Appendix A).		

As shown in the table, the proposed project's maximum unmitigated construction related NOX emissions would not exceed the applicable thresholds of significance of 85 lbs/day. It should be noted that all projects under the jurisdiction of SMAQMD are required to comply with all applicable SMAQMD rules and regulations (a complete list of current rules is available at www.airquality.org/rules). Rules and regulations related to construction include, but are not limited to, Rule 201 (General Permit Requirements), Rule 402 (Nuisance), Rule 403 (Fugitive Dust), Rule 404 (Particulate Matter), Rule 414 (Water Heaters, Boilers and Process Heaters Rated Less Than 1,000,000 British Thermal Units per Hour), Rule 417 (Wood Burning Appliances), Rule 442 (Architectural Coatings), Rule 453 (Cutback and Emulsified Asphalt Paving Materials), Rule 460 (Adhesives and Sealants), Rule 902 (Asbestos) and California Code of Regulations (CCR) requirements related to the registration of portable equipment and anti-idling. Furthermore, all projects are required to implement SMAQMD's Basic Construction Emission Control Practices (BCECP). Compliance with SMAQMD rules and regulations and BCECP would ensure that construction emissions are minimized to the extent practicable.

Based on the above, the proposed project would not result in construction emissions of NOX above 85 lbs/day. Therefore, construction of the proposed project would result in ***no additional significant environmental effects*** beyond the effects analyzed in the Master EIR.

Question B

Operation of the proposed project would result in various sources of emissions including emissions related to natural gas combustion for heating mechanisms, landscape maintenance equipment exhaust, and mobile sources. Emissions from mobile sources, such as future vehicle trips to and from the project site, would make up the majority of the emissions related to proposed project operations.

The proposed project's estimated operational emissions are presented in Table AIR-4. As shown in the table, the proposed project would not result in operational emissions of NOX or ROG above the 65 lbs/day SMAQMD threshold of significance. Considering that the proposed project would not result in a project-specific impact related to operational emissions of criteria pollutants, operation of the proposed project would result in ***no additional significant environmental effects*** beyond the effects analyzed in the Master EIR.

Table AIR-4
Maximum Project Operational NOX and ROG Emissions

Pollutant	Project Emissions (lbs/day)	SMAQMD Thresholds of Significance (lbs/day)
NOX	0.55	65
ROG	0.91	65
Source: CalEEMod, August 2022 (see Appendix A).		

Question C

SMAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of NAAQS, or to work towards attainment of NAAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. As future attainment of NAAQS is a function of successful implementation of SMAQMD's planning efforts, according to the SMAQMD Guide, by exceeding the SMAQMD's project-level thresholds for construction or operational

emissions, a project could contribute to the region's nonattainment status for ozone and PM emissions and could be considered to conflict with or obstruct implementation of the SMAQMD's air quality planning efforts.

As discussed above and below, the proposed project would result in construction and operational emissions below all applicable SMAQMD thresholds of significance. Therefore, the proposed project would not be considered to contribute to the region's non-attainment status for ozone or PM emissions and would not conflict with or obstruct implementation of SMAQMD's air quality planning efforts. Accordingly, the proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, and ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR would result from implementation of the proposed project.

Question D

As the region is designated nonattainment for PM10 and PM2.5, SMAQMD has adopted mass emissions thresholds of significance for PM10 and PM2.5, which are presented in Table AIR-5.

Table AIR-5
SMAQMD Thresholds of Significance for PM10 and PM2.5

Pollutant	Construction Thresholds (lbs/day)	Operational Thresholds (lbs/day)	Operational Thresholds (tons/yr)
PM10	80	80	14.6
PM2.5	82	82	15

Source: SMAQMD, May 2015.

To apply the construction thresholds presented in Table AIR-5, projects must implement all feasible SMAQMD Best Management Practices (BMPs) related to dust control. The control of fugitive dust during construction is required by SMAQMD Rule 403 and enforced by SMAQMD staff. The BMPs for dust control include the following:

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads;
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered;
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited;
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph);
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site;
- Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1]. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_cert1.html; and
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be

running in proper condition before it is operated.

Compliance with the foregoing measures is required per Rule 403, and proposed project construction is assumed to include compliance with the foregoing measures. Consequently, the proposed project PM emissions are assessed in comparison to the thresholds presented in Table AIR-5 above.

In order to determine whether the proposed project would result in PM emissions in excess of the applicable thresholds of significance presented above, the proposed project's construction and operational PM10 and PM2.5 emissions have been estimated using CalEEMod. According to the CalEEMod results, the proposed project would result in PM10 and PM2.5 emissions as shown in Table AIR-6. As presented in the table, the proposed project's estimated emissions of PM10 and PM2.5 would be well below the applicable SMAQMD thresholds of significance.

Table AIR-6
Maximum Unmitigated Project Emissions of PM10 and PM2.5

Pollutant	Project Construction Emissions (lbs/day)	Construction Thresholds (lbs/day)	Project Operational Emissions (lbs/day)	Operational Thresholds (lbs/day)	Project Operational Emissions (tons/yr)	Operational Thresholds (tons/yr)
PM10	8.05	80	0.63	80	0.10	14.6
PM2.5	4.09	82	0.18	82	0.03	15

Source: CalEEMod, August 2022 (see Appendix A).

Based on the above, the proposed project is not expected to result in PM10 and PM2.5 concentrations in excess of SMAQMD's thresholds of significance, and impacts would be less than significant. Considering that the proposed project would not result in a project-specific impact related to emissions of PM, operation of the proposed project would result in ***no additional significant environmental effects*** beyond the effects analyzed in the Master EIR.

Question E

According to the air quality/greenhouse gas analysis, the proposed project would result in increased concentrations of carbon monoxide (CO). New vehicle trips would add to carbon monoxide concentrations near streets providing access to the project site. Carbon monoxide is an odorless, colorless, gas whose primary source in the Sacramento Area is automobiles. Concentrations of this gas are highest near the intersection of major roads. According to the SMAQMD, in general, land use development projects do not typically have the potential to result in localized concentrations of CO that expose sensitive receptors to substantial pollutant concentrations. This is because CO is predominately generated in the form of mobile-source exhaust from vehicle trips associated with the proposed project. From the CalEEMod output and references from the San Diego Association of Governments (SANDAG), the proposed project is estimated to generate between 103 and 208 daily trips and 261,885 vehicle miles traveled per year. These vehicle trips and miles occur throughout a paved, network of roadways, therefore, associated exhaust emissions are not generated in a single location where high concentrations can be formed. The proposed project is not expected to result in a significant increase in delay at intersections in the project vicinity, as such, it is not expected to result in CO hotspots that would exceed the 1-hour State ambient standard or the 8-hour State ambient standard. Therefore the proposed project would have no additional significant environmental effects beyond what was previously identified in the Master EIR.

Questions F and G

The proposed project involves the construction and operation of a 20,850-square feet metal building and associated parking lot, thus, the proposed project would not introduce new sensitive receptors to the area.

The existing residences and elementary school in proximity to the project site would be considered sensitive receptors to any pollutants potentially emitted during construction or operation of the proposed project.

TAC Emissions

The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommendations for separating sensitive land uses from land uses typically associated with significant levels of TAC emissions, including, but not limited to, freeways and high traffic roads, distribution centers, rail yards, chrome platers, dry cleaners, and gasoline dispensing facilities. The CARB has identified Diesel Particulate Matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM.

Short-term, construction related activities would result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Specifically, per CalEEMod assumptions, construction would occur over an approximately ten to twelve month period. Grading activities, when emissions would be most intensive would occur over the period of approximately one week. The exposure period typically analyzed in health risk assessments is 30 years or greater, which is substantially longer than the approximate 12 month construction period associated with the proposed project.

Operational-related emissions of TACs are typically associated with stationary diesel engines or land uses that involve heavy truck traffic or idling. The proposed project would involve operations of heavy-duty vehicles accessing the project site and within the project site to access the building and parking spaces, therefore, would be considered a source of DPM. The CARB handbook acknowledges that DPM is a highly dispersive gas, the concentration of which decreases with distance from the source. Heavy-duty vehicles accessing the site may enter from either the east or west on Rene Avenue. According to the trip generation rate for the project from the CalEEMod output and references from the SANDAG, it would generate between 103 and 208 daily trips during the week. These trips would be distributed between business operational hours from approximately 7~~6~~ am to 5 pm for an average of 9-18 trips per hour accessing Rene Avenue. These trips would not be all heavy-duty vehicle trips as trip generation takes into account small duty vehicles that would visit the site. Therefore, only a portion of the daily trips (~9 to 18 trips per hour) would be comprised of heavy-duty vehicles. The low number of trips combined with the short-term, intermittent, temporary nature of these trips and the highly dispersive properties of DPM would limit the potential of sensitive receptors along Rene Avenue, including Bell Avenue Elementary School and Robla Preschool, and the single-family residences along Rene Avenue being exposed to high concentrations of DPM for any extended amount of time from heavy duty vehicles accessing the site. For on-site operations, the nearest sensitive receptors are located approximately 70 feet to the south of the project site. Such receptors are separated from the project site by Rene Avenue and DPM generated onsite would be substantially dispersed before reaching the nearest receptors. It should be noted that Sections 2449 and 2485 of Title 13 of the California Code of Regulations limits idling of heavy-duty trucks to five minutes. Unless specifically exempted in Sections 2449 and 2485, all diesel-powered equipment and heavy-duty trucks would be subject to the idling limitations, which would reduce the emission of DPM during both project construction and operations. Additionally, considering the short-term, intermittent, and regulated nature of operations onsite, the highly dispersive nature of DPM, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low. For the aforementioned reasons, project construction and operation would not be expected to expose sensitive receptors to substantial pollutant concentrations.

A Health Risk Assessment (HRA) was prepared for the proposed project. The purpose of the HRA is to document the potential health risks associated with the proposed project. The HRA calculates the emissions associated with local roadways near the project site, emissions rates associated with heavy duty vehicle

use on the site and off-site on the roadway network in the immediate vicinity, dispersion modeling of DPM in conjunction with sensitive receptors in the project vicinity, and DPM concentration at the sensitive receptors. The DPM concentrations at the sensitive receptors was utilized to evaluate the potential for cancer risk. For residential exposure, to be conservative, the proposed project was assessed using a higher breathing rate and an assumed exposure frequency of 350 days per year over a 30-year period. For school exposure, to be conservative, the calculation of health risk was based on an exposure frequency of 180 days per year over a 9-year exposure duration was used. Off-site worker exposure health risk was calculated using an exposure frequency of 250 days per year over a 25-year exposure duration. The predicted cancer risk at the worst-case scenario residential, school, and worker receptors are all less than the SMAQMD significance threshold of a cancer risk greater than 10.0 in a million. Additionally, the project site is not located in an area identified as likely to contain naturally occurring asbestos. Table AIR-7 summarizes the predicted cancer risks at nearby sensitive receptors (residential, school, worker).

Table AIR-7
Health Risk Summary

Receptor	Land Use	Cancer Risk (in a million)	Exceeds Threshold (10 in a million)
Residential	Residential	2.89	No
School	School	0.72	No
Worker	Commercial/Industrial	0.30	No

Source: Health Risk Assessment for Elite Truck Repair Project, November 2022 (see Appendix B).

As previously mentioned, the project will not result in emissions of TACs that would create a cancer risk of 10 in 1 million for nearby sensitive receptors. It should be noted, the project has been designed to service electric trucks. The HRA assumes a worst case scenario in which all truck traffic associated with the proposed project is diesel-powered. With the inclusion of electric trucks, DPM emissions associated with the project would be lower. The HRA is included as Appendix B.

MITIGATION MEASURES

None required.

FINDINGS

The proposed project would have no additional project-specific environmental effects relating to Air Quality.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
3. BIOLOGICAL RESOURCES Would the proposal: A) Create a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected?			X
B) Result in substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal species?		X	
C) Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands)?		X	

ENVIRONMENTAL SETTING

Prior to human development, the natural habitats within the region included perennial grasslands, riparian woodlands, oak woodlands, and a variety of wetlands including vernal pools, seasonal wetlands, freshwater marshes, ponds, streams, and rivers. Over the last 150 years, agriculture, irrigation, flood control, and urbanization have resulted in the loss or alteration of much of the natural habitat within the City limits. Non-native annual grasses have replaced the native perennial grasslands, many of the natural streams have been channelized, much of the riparian and oak woodlands have been cleared, and most of the marshes have been drained and converted to agricultural or urban uses.

Though the majority of the City is developed with residential, commercial, and other urban development, valuable plant and wildlife habitat still exists. These natural habitats are located primarily outside the city boundaries in the northern, southern and eastern portions of the City, but also occur along river and stream corridors and on a number of undeveloped parcels. Habitats that are present in the City include annual grasslands, riparian woodlands, oak woodlands, riverine, ponds, freshwater marshes, seasonal wetlands, and vernal pools. These habitats and their general locations are discussed briefly below.

A search of the California Department of Fish and Wildlife (CDFW) Natural Diversity Database (CNDDB) was performed by Area West Environmental, Inc. (AWE) on October 26, 2021, April 13, 2022, and August 1, 2022 for federally-listed species, state listed species, and species of special concern within the project site quadrangle. In addition to the search of the CNDDB, AWE searched the California Native Plant Society (CNPS) inventory of rare and endangered plants for known occurrences of federally listed plants within the project site quadrangle as well as the eight surrounding quadrangles (i.e., Taylor Monument, Rio Linda, Citrus Heights, Sacramento West, Sacramento East, Carmichael, Pleasant Grove, Davis, and Elk Grove). A search of the U.S. Fish and Wildlife Service (USFWS) ECOS Information for Planning and Consultation (iPaC) was also completed. Results of these searches are provided in Appendix C.

It should be noted that the California Fish and Game Code §3503 protects most birds and their nests. The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) also protects most birds and their nests, including most non-migratory birds in California. Birds protected by the MBTA have the potential to nest in the disturbed grasses within the project site.

Special-status Plant Species

Of the 15 special-status plant species identified, 14 species were eliminated from further consideration due to the habitat requirements (i.e., riparian, vernal pool, wetland, alkali scalds, and/or forest habitats) which are not present on the project site. With regard to the remaining species (big scale balsamroot [*Balsamorhiza macrolepis*]), this species was not observed during field surveys conducted on April 25, 2022 by AWE biologists Becky Rozumowicz-Kodsuntie and Rachel Freund. It is an annual herb and evidence of the species would have been present during the field survey as it took place during the bloom period. The project site has been disturbed through regular mowing to prevent weed growth and contains primarily aggressive non-native and invasive species that out compete native rare taxa for resources. Due to the frequent past and present disturbance of the project site, the prevalence of non-native and invasive vegetation, as well as the developed nature of much of the surrounding area, special-status plants are not likely to occur on-site.

Special-status Wildlife Species

Of the 19 special-status wildlife species identified, 17 species were eliminated from further consideration due to habitat requirements (i.e., aquatic, wetland, forest, elderberry shrubs, rodent burrows, suitable burrowing habitat, and/or coastal habitats) which are not present on the project site. The two remaining special-status species, song sparrow (*Melospiza melodia*) could potentially nest on the ground or in vegetation within or adjacent to the project site and purple martin (*Progne subis*) could potentially nest on adjacent buildings, though this likelihood is very low. As noted above, the site is currently highly disturbed through regular mowing, contains primarily non-native and invasive vegetation, and is surrounded by existing development.

Waters and Wetlands

AWE biologists conducted a site visit on April 25, 2022 to assess the site for habitats that could support special-status species and aquatic resources. The proposed project parcel does not contain any wetlands or potential aquatic resources.

STANDARDS OF SIGNIFICANCE

For purposes of this environmental document, an impact would be significant if any of the following conditions or potential thereof, would result with implementation of the proposed project:

- Creation of a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected;
- Substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal; or
- Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands).

For the purposes of this document, “special-status” has been defined to include those species, which are:

- Listed as endangered or threatened under the federal Endangered Species Act (ESA) (or formally proposed for, or candidates for, listing);
- Listed as endangered or threatened under the California ESA (or proposed for listing);
- Designated as endangered or rare, pursuant to California Fish and Game Code (Section 1901);
- Designated as fully protected, pursuant to California Fish and Game Code (Section 3511,

4700, or 5050);

- Designated as species of concern by U.S. Fish and Wildlife Service (USFWS), or as species of special concern to California Department of Fish and Game (CDFG);
- Plants or animals that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA).

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

Chapter 4.3 of the Master EIR evaluated the effects of the 2035 General Plan on biological resources within the City. The Master EIR identified potential impacts in terms of degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status birds, through the loss of both nesting and foraging habitat.

Policies in the 2035 General Plan were identified as mitigating the effects of development that could occur under the provisions of the 2035 General Plan. Policy ER 2.1.5 calls for the City to preserve the ecological integrity of creek corridors and other riparian resources; Policy ER 2.1.10 requires the City to consider the potential impact on sensitive plants for each project and to require pre-construction surveys when appropriate; and Policy ER 2.1.11 requires the City to coordinate its actions with those of the California Department Fish and Wildlife, U.S. Fish and Wildlife Service, and other agencies in the protection of resources.

The Master EIR discussed biological resources in Chapter 4.3. The Master EIR concluded that policies in the general plan, combined with compliance with the California ESA, Natomas Basin HCP (when applicable) and CEQA would minimize the impacts on special-status species to a less-than-significant level (see Impact 4.3-1), and that the general plan policies, along with similar compliance with local, state and federal regulation would reduce impacts to a less-than-significant level for habitat for special-status invertebrates, birds, amphibians and reptiles, mammals and fish (Impacts 4.3-3-6).

Given the prevalence of rivers and streams in the incorporated area, impacts to riparian habitat is a common concern. Riparian habitats are known to exist throughout the City, especially along the Sacramento and American rivers and their tributaries. The Master EIR discussed impacts of development adjacent to riparian habitat that could disturb wildlife species that rely on these areas for shelter and food, and could also result in the degradation of these areas through the introduction of feral animals and contaminants that are typical of urban uses. The CDFW regulates potential impacts on lakes, streams, and associated riparian (streamside or lakeside) vegetation through the issuance of Lake or Streambed Alteration Agreements (SAA) (per Fish and Game Code Section 1602), and provides guidance to the City as a resource agency. While there are no federal regulations that specifically mandate the protection of riparian vegetation, federal regulations set forth in Section 404 of the Clean Water Act address areas that potentially contain riparian-type vegetation, such as wetlands.

The general plan calls for the City to preserve the ecological integrity of creek corridors, canals and drainage ditches that support riparian resources (Policy ER 2.1.5) and wetlands (Policy ER 2.1.6) and requires habitat assessments and impact compensation for projects (Policy ER 2.1.10). has adopted a standard that requires coordination with state and federal agencies if a project has the potential to affect other species of special concern or habitats, including waters and wetlands, protected by agencies or natural resource organizations (Policy 2.1.11).

Implementation of 2035 General Plan Policy ER 2.1.5 would reduce the magnitude of potential impacts by requiring a 1:1 replacement of riparian habitat lost to development. While this would help mitigate impacts on riparian habitat, large open areas of riparian habitat used by wildlife could be lost and/or degraded directly and indirectly through development under the 2035 General Plan. Given the extent of urban development designated in the general plan, the preservation and/or restoration of riparian habitat would likely occur outside

of the City limits. The Master EIR concluded that the permanent loss of riparian habitat would be a less-than-significant impact. (Impact 4.3-7)

ANSWERS TO CHECKLIST QUESTIONS

Question A

The use, handling, and storage of hazardous materials is regulated by both the Federal Occupational Safety and Health Administration (Fed/OSHA) and the California Occupational Safety and Health Administration (Cal/OSHA). Cal/OSHA is responsible for developing and enforcing workplace safety regulations. At the local level, the Sacramento Environmental Management Department regulates hazardous materials within Sacramento County, including chemical storage containers, businesses that use hazardous materials, and hazardous waste management.

The proposed project consists of the construction of a metal building and associated site improvements such as, on-site drainage infrastructure and landscaping features. Operations associated with the proposed project would be typical of other warehouses in the City and would be governed by the uses permitted for the project site per the City's Code and General Plan. The project site is designated Employment Center Low Rise by the 2035 General Plan. Per Section 17.220.110 of the Sacramento City Code, the M-1-SPD designation allows for residential, commercial and institutional, and industrial and agricultural uses such as those associated with the proposed project.

It should be noted that the use and storage of hazardous materials is regulated by Section 8.64 of the Sacramento City Code. Section 8.64.040 establishes regulation related to the designation of hazardous materials and requires that a hazardous material disclosure form be submitted within 15 days by any person using or handling a hazardous material. In addition, the routine transport, use, and disposal of hazardous materials are regulated by existing federal, state, and local regulations. For instance, the Sacramento County Environmental Management Department requires businesses handling sufficient quantities of hazardous materials to submit a Hazardous Materials Business Plan and obtain permitting. Thus, the proposed project would not involve the use, production, disposal, or handling of materials that could pose a hazard to plant or animal populations in the area; therefore, the proposed project would result in a less-than-significant impact and implementation of the proposed project would result in ***no additional significant environmental effects*** beyond what was previously anticipated in the Master EIR.

Question B

As described above, the project site is frequently disturbed by regular mowing and located in a developed setting, it is unlikely that any rare, threatened, or endangered plant or animal species are onsite. Therefore, the proposed project would result in ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Question C

AWE determined the proposed project parcel does not support any aquatic resources but could support nesting birds protected by the Migratory Bird Treaty Act. Implementation of mitigation measure BIO-1 requiring a preconstruction survey for nesting birds, would reduce the impacts to special status species, including those covered under the MBTA to a less-than-significant level. Therefore, the proposed project would result in ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

MITIGATION MEASURES

BIO-1 *If construction is to begin during the nesting season of February 1 through August 31, then a preconstruction survey for protecting nesting birds shall be conducted by a qualified biologist. If a 15-day lapse in construction work occur during the nesting season, then another preconstruction survey shall be conducted prior to the resumption of work. Results*

of the preconstruction surveys shall then be submitted to the City of Sacramento Planning Division for review.

The preconstruction survey shall be conducted within 15 days prior to the start of construction. The survey shall cover the project site and areas within 500 feet for birds of prey, and within 100 feet for other bird nests. Private and inaccessible areas shall be surveyed from accessible public areas with binoculars. If no active nests of a bird of prey, MBTA bird, or other CDFW protected bird is found, then no further avoidance and minimization measures are required. If active nests are found, they shall be avoided and protected as follows:

- If a bird of prey nest is found, a 250-foot-radius Environmental Sensitive Area (ESA) shall be established around the nest.
- If an active nest of another (non-bird of prey) bird is found, a 50-foot-radius ESA shall be established around the nest.

Construction activity shall not be allowed in an ESA until the biologist determines that either: 1) the nest is no longer active; 2) monitoring determines a small ESA buffer will protect the active nest; or 3) monitoring determines that no disturbance to the nest is occurring. Construction buffers may be reduced in size or removed.

FINDINGS

Implementation of Mitigation Measure Bio-1 would require that a pre-construction survey will be conducted to determine the presence or absence of nesting birds within the project site and identifies necessary steps to ensure the development would not result in impacts to nesting birds. Thus, all significant environmental effects of the proposed project would be mitigated to a less-than-significant level, and the proposed project would have no additional project-specific environmental effects relating to Biological Resources.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
4. CULTURAL RESOURCES Would the project: A) Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in § 15064.5?		X	
B) Directly or indirectly destroy a unique paleontological resource?		X	
C) Disturb any human remains?		X	

ENVIRONMENTAL SETTING

The City of Sacramento and the surrounding area are known to have been occupied by Native American groups for thousands of years prior to settlement by non-Native peoples. Archaeological materials, including human burials, have been found throughout the city. Human burials outside of formal cemeteries often occur in prehistoric contexts. Areas of high sensitivity for archaeological resources, as identified in the 2035 General Plan Background Report, are located within close proximity to the Sacramento and American Rivers and moderate sensitivity was identified nearother watercourses. The project site is not adjacent to these high or moderate sensitivity units shown in the 2035 General Plan Background Report.

The 2035 General Plan land use diagram designates a wide swath of land along the American River as Parks, which limits development and impacts on sensitive prehistoric resources. High sensitivity areas may be found in other areas related to the ancient flows of the rivers, with differing meanders than found today. Recent discoveries during infill construction in downtown Sacramento have shown that the downtown area is highly sensitive for both historic- and prehistoric-period archaeological resources. Native American burials and artifacts were found in 2005 during construction of the New City Hall and historic period archaeological resources are abundant downtown due to the evolving development of the area and, in part, to the raising of the surface street level in the 1860s and 1870s, which created basements out of the first floors of many buildings.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, cultural resource impacts may be considered significant if construction and/or implementation of the proposed project would result in one or more of the following:

- Cause a substantial change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5; or
- Directly or indirectly destroy a unique paleontological resource; or

A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF SUCH RESOURCES.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR evaluated the potential effects of development under the 2035 General Plan on prehistoric and historic resources. See Chapter 4.4.

General plan policies identified as reducing such effects call for identification of resources on project sites (Policy HCR 2.1.1), implementation of applicable laws and regulations (Policy HCR 2.1.2), early consultation with owners and land developers to minimize effects (Policy HCR 2.1.10) and encouragement

of adaptive reuse of historic resources (Policy HCR 2.1.14). Demolition of historic resources is deemed a last resort. (Policy HCR 2.1.15)

The Master EIR concluded that implementation of the 2035 General Plan would have a significant and unavoidable effect on historic resources and archaeological resources. (Impacts 4.4-1, 2)

ANSWERS TO CHECKLIST QUESTIONS

The following discussion is based on a Cultural Resources Survey for the project site performed by AWE archaeologist Jennifer Pennell. On April 25, 2022, Ms. Pennell conducted a pedestrian survey of the project parcel. Additionally, a records search was conducted by staff at the North Central Information Center (NCIC), to research previous sites and surveys within a 0.25-mile of the project site. The results of the records search determined that previously recorded prehistoric or historic resources have not been identified within the project site or within a 0.25-mile radius. The NCIC further noted that no previous cultural studies have been conducted within the project site itself. Two cultural resources studies have been conducted within a 0.25-mile raidus of the project site. One previously conducted cultural resources study took place in March 2019 for the 1690 Bell Avenue Project approximately 0.20 miles to the west of the project site. The other was conducted in October 1993 for the Intensive Cultural Resource Survey of Portions of McClellan Air Force Base, approximately 0.25-miles to the northeast of the project site.

Questions A and B

The approximately 4.81-acre project site is currently vacant and regularly mowed for weed abatement. The proposed project would include the construction of a metal building and associated site improvements. As noted above, recent records searches of the NCIC have demonstrated that the project site does not contain any known historic or archaeological resources. Intensive pedestrian survey conducted by AWE did not identify any evidence of surface or subsurface historic or prehistoric features. The presence of historic features in the vicinity and prehistoric sites in the general region suggests comparable sites or features could be present in surface and subsurface contexts in the project site. The predominant historic theme of the project area is agriculture, ranching, transportation, and land reclamation, all of which could result in the deposit of resources.. Since the intensive pedestrian survey did not identify any resources and the area is not in an area of high or moderate sensitivity as shown in the 2035 General Plan Background Report, the probability of encountering such resources during project implementation is considered low.

Based on the above, implementation of the proposed project would not cause substantial adverse change in the significance of a historic resource, nor would it directly or indirectly destroy a unique paleontological resource. Therefore, implementation of the proposed project would have ***no additional significant environmental effects*** beyond what has been previously analyzed in the Master EIR.

MITIGATION MEASURES

See Tribal Cultural Resources Mitigation Measures beginning on page 66.

FINDINGS

Implementation of Mitigation Measures TCR-1a-c would identifiy necessary steps to ensure the development would not result in impacts to cultural resources. Thus, all significant environmental effects of the proposed project would be mitigated to a less-than-significant level, and the proposed project would have no additional project-specific environmental effects relating to Cultural Resources.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
5. GEOLOGY AND SOILS			X

Would the project allow a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards?			

Environmental Setting

Seismicity

The Sacramento 2035 General Plan Master EIR identifies all of the City of Sacramento as being subject to potential damage from earthquake ground shaking at a maximum intensity of VII on the Modified Mercalli scale (SGP Master EIR, Table 6.5-6). The closest potentially active faults to the proposed project include the Foothills Fault System, located approximately 23 miles from Sacramento; the Great Valley fault, located 26 miles from Sacramento; Concord-Green Valley Fault, located approximately 38 miles from Sacramento; and the Hunting Creek-Berryessa Fault, located 38 miles from Sacramento. The Foothills Fault System is considered capable of generating an earthquake with a Richter-Scale magnitude of 6.5; the Great Valley Fault is capable of generating an earthquake with a magnitude of 6.8; the Concord-Green Valley fault is capable of generating an earthquake with a magnitude 6.9, and the Hunting Creek-Berryessa Fault could generate a 6.9 magnitude earthquake. A major earthquake on any of these faults could cause strong ground shaking in the proposed project.

Topography

Terrain in the City of Sacramento features very little relief and the potential for slope instability within the City is minor due to the relatively flat topography of the area. The project site is relatively level with no major changes in grade.

Project Site Soils

The project site is underlain by San Joaquin-Urban land complex: 0 to 3 percent slopes[e]. Urban land soils are moderately well-drained and have moderate infiltration rates.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact is considered significant if it allows a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

Chapter 4.5 of the Master EIR evaluated the potential effects related to seismic hazards, underlying soil characteristics, slope stability, erosion, existing mineral resources and paleontological resources in the City. Implementation of identified policies in the 2035 General Plan reduced all effects to a less-than-significant level. Policy EC 1.1.1 requires regular review of the City's seismic and geologic safety standards, and Policy EC 1.1.2 requires geotechnical investigations for project sites to identify and respond to geologic hazards, when present.

ANSWERS TO CHECKLIST QUESTIONS

Question A

[e] United States Department of Agriculture, National Resources Conservation Service. *Web Soil Survey,* 2022.

The proposed project is not located on or in the vicinity of an Alquist-Priolo Fault Zone; therefore, the potential for fault rupture on the proposed project is considered to be low. The proposed project is located in an area of the City of Sacramento that is topographically flat. Seismically-induced landslides or landslides induced by soil failure typically occur on slopes with gradients of 30 percent or higher. Soils that are most susceptible to liquefaction are clean, loose, uniformly graded, saturated, fine-grained sands that lie relatively close to the ground surface. According to the Background Report for the City's 2035 General Plan and the Natural Resources Conservation Service's (NRCS) Web Soil Survey, the existing on-site soils range from 0 to 3 percent slopes. Considering the project site is topographically flat, the potential for seismically-induced or soil failure landslides does not exist. Additionally, the project site is not located within a State-Designated Seismic Hazard Zone for liquefaction. Thus, the potential for the project site to experience geologic or seismic hazards related to liquefaction or fault rupture is low[f].

As part of the building permit process, a Geotechnical Investigation is required to be submitted with the building permit application and implemented via the building plan review process prior to issuance of the building permit. The Geotechnical Investigation would include site-specific recommendations for general construction procedures; site clearing; site preparation and sub-excavation; engineered fill construction; utility trench backfill; foundation design; interior floor slab support; floor slab moisture penetration resistance; exterior flatwork; pavement design; construction testing and observation; and review of final plans and specifications to ensure that the recommendations within the investigation are implemented as part of the proposed project. Consistent with the conclusions of the Master EIR, implementation of the Sacramento City Code, which requires preparation and implementation of a site-specific Geotechnical Investigation and compliance with the CBSC, would ensure that the proposed project would include protections against possible seismic hazards.

Based on the above, implementation of the proposed project would not introduce geologic or seismic hazards by allowing the construction of the proposed project on such a site without protection against those hazards. Therefore, implementation of the proposed project would have ***no additional significant environmental effects*** beyond what has been previously analyzed in the Master EIR.

MITIGATION MEASURES

None required.

FINDINGS

The proposed project would have no additional project-specific environmental effects relating to Geology and Soils.

[f] City of Sacramento. *2035 General Plan*. 2015.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
6. GREENHOUSE GAS EMISSIONS Would the project: A) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X
B) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X

Environmental Setting

The City of Sacramento is located within the Sacramento Valley Air Basin (SVAB), which is a valley bounded by the North Coast Mountain Ranges to the west and the Northern Sierra Nevada Mountains to the east. The terrain in the valley is flat and approximately 25 feet above sea level.

Hot, dry summers and mild, rainy winters characterize the Mediterranean climate of the Sacramento Valley. Throughout the year, daily temperatures may range by 20 degrees Fahrenheit with summer highs often exceeding 100 degrees and winter lows occasionally below freezing. Average annual rainfall is about 20 inches and snowfall is very rare. Summertime temperatures are normally moderated by the presence of the "Delta breeze" that arrives through the Carquinez Strait in the evening hours.

The mountains surrounding the SVAB create a barrier to airflow, which can trap air pollutants in the valley. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in a stable volume of air. The surface concentrations of pollutants are highest when these conditions are combined with temperature inversions that trap cooler air and pollutants near the ground.

The warmer months in the SVAB (May through October) are characterized by stagnant morning air or light winds, and the Delta breeze that arrives in the evening out of the southwest. Usually, the evening breeze transports a portion of airborne pollutants to the north and out of the Sacramento Valley. During about half of the day from July to September, however, a phenomenon called the "Schultz Eddy" prevents this from occurring. Instead of allowing the prevailing wind patterns to move north carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern to circle back south. This phenomenon exacerbates the pollution levels in the area and increases the likelihood of violating Federal or State standards. The Schultz Eddy normally dissipates around noon when the Delta breeze begins.

Greenhouse Gases

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. GHGs are responsible for "trapping" solar radiation in the earth's atmosphere, a phenomenon known as the greenhouse effect. Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. Emissions of

GHGs contributing to global climate change are attributable, in large part, to human activities associated with on-road and off-road transportation, industrial/manufacturing, electricity generation by utilities and consumption by end users, residential and commercial on-site fuel usage, and agriculture and forestry. Emissions of CO_2 are, largely, byproducts of fossil fuel combustion.

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

Several regulations currently exist related to GHG emissions, predominantly Assembly Bill (AB) 32, Executive Order S-3-05, and Senate Bill (SB) 32. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. Executive Order S-3-05 established the GHG emission reduction target for the State to reduce to the 2000 level by 2010, the 1990 level by 2020 (AB 32), 40 percent below the 1990 level by 2030, and to 80 percent below the 1990 level by 2050 (SB 32).

To meet the statewide GHG emission targets, the City adopted the City of Sacramento Climate Action Plan (CAP) on February 14, 2012 to comply with AB 32. The CAP identified how the City and the broader community could reduce Sacramento's GHG emissions and included reduction targets, strategies, and specific actions. In 2015, the City of Sacramento adopted the 2035 General Plan Update. The update incorporated measures and actions from the CAP into Appendix B, General Plan CAP Policies and Programs, which includes citywide policies and programs that are supportive of reducing GHG emissions

STANDARDS OF SIGNIFICANCE

- A project is considered to have a significant effect relating to greenhouse gas emissions if it fails to satisfy the requirements of the City's Climate Action Plan.
-

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR found that greenhouse gas emissions that would be generated by development consistent with the 2035 General Plan would contribute to climate change on a cumulative basis. Policies of the General Plan identified in the Master EIR that would reduce construction related GHG emissions include: ER 6.1.2, ER 6.1.11 requiring coordination with SMAQMD to ensure feasible mitigation measures are incorporated to reduce GHG emissions, and ER 6.1.15. The 2035 General Plan incorporates the GHG reduction strategy of the 2012 Climate Action Plan (CAP), which demonstrates compliance mechanism for achieving the City's adopted GHG reduction target of 15 percent below 2005 emissions by 2020. Policy ER 6.1.8 commits the City to assess and monitor performance of GHG emission reduction efforts beyond 2020, and progress toward meeting long-term GHG emission reduction goals, ER 6.1.9 also commits the City to evaluate the feasibility and effectiveness of new GHG emissions reduction measures in view of the City's longer-term GHG emission reductions goal. The discussion of greenhouse gas emissions and climate change in the 2035 General Plan Master EIR are incorporated by reference in this Initial Study. (CEQA Guidelines Section 15150)

The Master EIR identified numerous policies included in the 2035 General Plan that addressed greenhouse gas emissions and climate change. See Draft Master EIR, Chapter 4.14, and pages 4.14-1 et seq. The Master EIR is available for review online at http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports

ANSWERS TO CHECKLIST QUESTIONS

Question A

SMAQMD has recently updated its guidance to assess project imacts with respect to the State's 2030 GHG reduction goals. The SMAQMD provides recommended thresholds, including BMPs for operational emissions, for agencies without adopted GHG reduction plans (climate action plans) or their own adopted thresholds and for projects that are inconsistent with an agency's adopted GHG reduction plan. SMAQMD

recommends a quantitative threshold of 1,100 metric tons of CO2 equivalent per year (MTCO2e/year) to assess GHG emissions from the construction phase of all project types. SMAQMD considers a project's operational GHG impact to be less than significant if operational emissions are less than 1,100 MTCO2e/year with full implementation of the appropriate level of BMPs identified.

Construction of the project is assumed to begin by early/mid 2023 and be completed by late 2023. Construction-related GHG emissions would be generated from various sources including operation of construction equipment and haul truck and construction worker vehicle trips. As with the air quality analysis, GHG emissions from construction equipment were estimated from the most recent version of CalEEMod using project-specific inputs when possible, and supplemented with CalEEMod default values when project-specific data was unavailable.

Annual construction emissions associated with the project are estimated to be 246.46 MTCO2e/year which would not exceed the SMAQMD's significance threshold of 1,100 MTCO2e/year, and the associated short-term construction emissions impact would be less than significant.

Over the long-term, the proposed project would result in direct GHG emissions primarily through vehicle trips. Indirect GHG emissions would be generated from the generation of electricity to power the project. It is important to note that the project has been designed t service electric trucks, the modeling assumes a worst-case scenario in which all trucks associated with the proposed facility are diesel-powered. With the inclusion of electric trucks, operational GHG emissions associated with the proposed project would be lower.

For the operational phase, SMAQMD does not provide quantitative thresholds of significance, but instead requires projects to demonstrate consistency with CARB's most recent Climate Change Scoping Plan by implementing the following BMPs, as applicable, or equivalent on-site or off-site mitigation.

All projects are required to implement Tier 1 BMPs (BMP 1 and 2) which include

- BMP 1: Projects shall be designed and constructed without natural gas infrastructure.
- BMP 2: Project shall meet the current CalGreen Tier 2 standards, except all electric vehicle capable spaces shall instead be electric vehicle ready.

Projects that exceed 1,100 MTCO2e/year after implementation of Tier 1 BMPs must implement Tier 2 BMPs (BMP 3):

- BMP 3: Residential projects shall achieve a 15% reduction in vehicle miles traveled per resident and office projects shall achieve a 15% reduction in vehicle miles traveled per worker compared to average vehicle miles traveled for the county, and retail projects shall achieve a no net increase in total vehicle miles traveled to show consistency with SB 743.

As described, the project is proposed as an all-electric development and natural gas will not be used. In addition, the project includes electric vehicle ready parking spaces. Therefore the project would fully implement both Tier 1 BMPs. In addition, the projects operational emissions of 208.38 MTCO2e would be well below the 1,100 MTCO2e/year and would not result in a project-related impact related to greenhouse gas emissions. Project construction and operation would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The proposed project would result in ***no additional significant environmental effects*** beyond the effects analyzed in the Master EIR

Question B

Emissions from proposed project operations were quantified using CalEEMod as described above. Based on the modeling, the proposed project would result in approximately 208.38 MTCO2e/year. SMAQMD has identified thresholds of significance of 1,100 of MTCO2e/year with the inclusion of BMPs 1 & 2 for agencies without adopted GHG reduction plans. The proposed project's estimated GHG emissions of MTCO2e/year

is well below the SMAQMD thresholds with BMPs 1&2. Projects within Sacramento City limits are required to adhere to reduction targets, strategies, and specific actions for reducing GHG Emissions set forth by the adopted Climate Action Plan (CAP). The City of Sacramento has integrated a CAP into the City's General Plan, and, thus, potential impacts related to climate change from development within the City are assessed based on the project's compliance with the City's adopted General Plan CAP Policies and Programs set forth in Appendix B of the General Plan Update[g]. The majority of the policies and programs set forth in Appendix B of the General Plan Update are citywide efforts in support of reducing overall citywide emissions of GHG. However, various policies related to new development within the City would directly apply to the proposed project. The proposed project's general consistency with City policies that would reduce GHG emissions from buildout of the City's General Plan is discussed below.

Goal LU 2.5, Policy LU 2.5.1, and Policy LU 2.7.6 require that new urban developments should be well-connected, minimize barriers between uses, and create pedestrian-scaled, walkable areas. The proposed project improves existing sidewalk conditions along Rene Avenue by constructing new pedestrian facilities that connect to existing sidewalks to the east and west of the project parcel. Thus, the proposed project would comply with Goal LU 2.5 and Policy LU 2.5.1. The project site is surrounded by existing urban development and would be considered infill development. Policy LU 1.1.4 and LU 1.1.5 seek to support infill development within the City; thus, the proposed project would comply with both policies. In compliance with Policy LU 2.6.1 and LU 4.1.1, the proposed project would introduce new industrial development in proximity to existing residential developments, which could allow for shorter commute trip lengths as future employees could reside in close proximity to the project site.

The proposed project would be constructed in compliance with the California Building Standards Code (CBSC), which includes the California Building Energy Efficiency Standards and the California Green Building Code. The CBSC, and the foregoing standards and codes, increase the sustainability of new development through requiring energy efficiency and sustainable design practices (Policy ER 6.1.7). Such sustainable design would support the City's Policy U 6.1.5, which states that energy consumption per capita should be reduced as compared to the year 2005.

Policy ER 6.1.2 directs the City to review proposed development and incorporate feasible measures that reduce construction emissions for ROG, NO_X, and other pollutants. As discussed under Questions F and G above, the proposed project would be required to adhere to Mitigation Measure 2-1, which would reduce emissions of ROG and NOX to a less-than-significant level. Thus, following implementation of Mitigation Measure 2-1, emissions related to construction of the proposed project would be in compliance with SMAQMD's thresholds of significance and Policy ER 6.1.2.

The Master EIR concluded that buildout of the City's General Plan would not result in a conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. The proposed project would be consistent with the City's General Plan land use designation for the site as well as the policies discussed above that are intended to reduce GHG emissions from buildout of the City's General Plan. Thus, GHG emissions from operation of the proposed project were previously addressed as part of the analysis in the Master EIR. Considering the proposed project's consistency with the City's General Plan and the general consistency with the City's General Plan policies intended to reduce GHG emissions, the foregoing annual emissions related to operations of the proposed project have been previously addressed, and the proposed project would not conflict with the City's CAP. Consequently, the proposed project would result in a less-than- significant impact. Considering that the proposed project would not result in a project-specific impact related to compliance with the City's CAP, the proposed project would result in ***no additional significant environmental effects*** beyond the effects analyzed in the Master EIR.

MITIGATION MEASURES
None required.

[g] City of Sacramento. *2035 General Plan.* 2015

FINDINGS

The proposed project would have no additional project-specific environmental effects relating to Greenhouse Gas Emissions.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
6. HAZARDS Would the project: A) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities?			X
B) Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials?			X
C) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities?			X

ENVIRONMENTAL SETTING

The proposed project is currently vacant and has historically been used as a residence and for light agricultural purposes. Based on historical aerial photographs, the proposed project appears to have been routinely mowed and infrequently disked over the past decade. There are no recognized environmental conditions (RECs) at the proposed project.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact is considered significant if the proposed project would:

- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities;
- expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials; or
- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR evaluated effects of development on hazardous materials, emergency response and aircraft crash hazards. See Chapter 4.6. Implementation of the General Plan may result in the exposure of people to hazards and hazardous materials during construction activities, and exposure of people to hazards and hazardous materials during the life of the general plan. Impacts identified related to construction activities and operations were found to be less than significant. Policies included in the 2035 General Plan, including PHS 3.1.1 (investigation of sites for contamination) and PHS 3.1.2 (preparation of hazardous materials actions plans when appropriate) were effective in reducing the identified impacts.

ANSWERS TO CHECKLIST QUESTIONS

Question A

The project site has been historically used as a residence and for light agricultural purposes, and has a history of permanent structures. The project site is not included on a list of hazardous materials sites compiled by the County pursuant to Government Code 65962.5. In addition, known contaminated soils do

not occur on the project site, according to the Department of Toxic Substances Control's EnviroStor database[h] or the State Water Resources Control Board's GeoTracker database[i].

Grading and construction activities associated with the proposed project would disturb an approximately 4.81-acre area. Although the proposed project would include disturbance of the entire project site, because RECs do not exist within the site, construction of the proposed structures would not have the potential to result in impacts related to the disturbance or upset of hazardous materials.

Based on the above, the construction activities associated with the proposed project would not result in the exposure of construction workers or other sensitive receptors to contaminated soils and ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR would occur.

Question B

The project site is currently vacant and has been historically used for agricultural use and vehicle and material storage. Thus, demolition of existing structures would not be necessary during implementation of the proposed project. Because the proposed project would not include demolition of an existing on-site structure, the potential to expose construction workers and nearby sensitive receptors to asbestos-containing materials is low, and the proposed project would result in ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Question C

The proposed project would not be expected to require any on-site dewatering activities. The proposed project would include grading and construction activities in an approximately 4.81-acre area. Grading and excavation depths typically range from 0 to 36 inches for site grading and up to 8 feet for utility trenches. Groundwater would not be anticipated to be encountered at these depths. Thus, the proposed project would not expose construction workers or pedestrians to contaminated groundwater and implementation of the proposed project would result in ***no additional significant environmental effects*** beyond what has been previously analyzed in the Master EIR.

ITIGATION MEASURES
None required.

FINDINGS
The proposed project would have no additional project-specific environmental effects relating to Hazards.

[h] California Department of Toxic Substances Control. 2022. *EnviroStor*. Accessed 3 January 2022.
[i] State Water Resources Control Board. 2022. GeoTracker. Accessed 3 January 2022.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
7. HYDROLOGY AND WATER QUALITY Would the project: A) Substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the project?			X
B) Substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood?			X

ENVIRONMENTAL SETTING

The proposed project is located in a developed area of Sacramento. The proposed project is currently vacant and does not contain any impervious surface. Stormwater runoff is handled by existing City stormwater infrastructure located within the Rene Avenue right of way.

The City of Sacramento's Grading Ordinance requires that development projects comply with the requirements of the City's Stormwater Quality Improvement Plan (SQIP). The SQIP outlines the priorities, key elements, strategies, and evaluation methods of the City's Stormwater Management Program. The Program is based on the NPDES municipal stormwater discharge permit. The comprehensive Program includes pollution reduction activities for construction sites, industrial sites, illegal discharges and illicit connections, new development, and municipal operations. In addition, before the onset of any construction activities, where the disturbed area is one acre or more in size, projects are required to obtain coverage under the NPDES General Construction Permit and include erosion and sediment control plans. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater and other non-point source runoff. Measures that reduce or eliminate post-construction-related water quality problems range from source controls, such as reduced surface disturbance, to treatment of polluted runoff, such as detention or retention basins. The City's SQIP and the Stormwater Quality Design Manual for the Sacramento Region[j] include BMPs to be implemented to mitigate impacts from new development and redevelopment projects, as well as requirements for low impact development (LID) standards, in compliance with the City's Municipal Separate Storm Sewer System (MS4) permit requirements.

The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRMs) that delineate flood hazard zones for communities. The project site is designated by FIRM Panel Number 06067C0068H as being located within an area designated as Zone X. Zone X is an area of minimal flood hazard, outside of the special flood hazard area and higher than the elevation of the 0.2-percent annual chance flood.

Section 13.08.145 of the Sacramento City Code (Mitigation of drainage impacts; design and procedures manual for water, sanitary sewer, storm drainage, and water quality facilities) requires that when a property would contribute drainage to the storm drain system or combined sewer system, all stormwater and surface runoff drainage impacts resulting from the improvement or development must be fully mitigated to ensure that the improvement or development does not affect the function of the storm drain system or combined sewer system, and that an increase in flooding or in water surface elevation that adversely affects individuals, streets,

[j] Sacramento Stormwater Quality Partnership. *Stormwater Quality Design Manual for the Sacramento Region.* 2014

structures, infrastructure, or property does not occur. Wastewater treatment would be provided by the Sacramento Regional County Sanitation District (SRCSD). In order to connect with the SRCSD wastewater conveyance and treatment system, developers must pay impact fees.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to hydrology and water quality may be considered significant if construction and/or implementation of the Proposed Project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan MEIR:

- substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board (SWRCB), due to increases in sediments and other contaminants generated by construction and/or development of the Specific Plan or
- substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

Chapter 4.7 of the Master EIR evaluates the potential effects of the 2035 General Plan as they relate to surface water, groundwater, flooding, stormwater and water quality. Potential effects include water quality degradation due to construction activities (Impacts 4.7-1, 4.7-2), and exposure of people to flood risks (Impacts 4.7-3). Policies included in the 2035 General Plan, including a directive for regional cooperation (Policies ER 1.1.2, EC 2.1.1), comprehensive flood management (Policy EC 2.1.23), and construction of adequate drainage facilities with new development (Policy ER 1.1.1 to ER 1.1.10) were identified that the Master EIR concluded would reduce all impacts to a less-than-significant level.

ANSWERS TO CHECKLIST QUESTIONS

Question A

Construction

Construction activities associated with the proposed project could create the potential to degrade water quality from increased sedimentation and discharge associated with stormwater runoff. Disturbance of site soils would increase the potential for erosion from stormwater to occur. The SWRCB adopted a statewide general NPDES permit for stormwater discharges associated with construction activity. Dischargers whose projects disturb one or more acres of soil arer required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction Gernal Permit Order 2010-0014-DWQ. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation. The proposed project would disturb the entire 4.81-acre site and would be required to obtain coverage under the Construction General Permit.

The City's SQIP contains a Construction Element that guides the implementation of the NPDES Permit for Storm Water Discharges Associated with Construction Activity. This General Construction Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map which shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography, and drainage patterns across the project site. The SWPPP must list BMPs the discharger will use to protect stormwater runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program, a chemical monitoring program for non-visible pollutants to be implemented if there is a failure of BMPs, and a sediment monitoring plan if the site discharges directly to a waterbody listed on the 303(d) list for sediment. Section A of the General Permit describes the elements that must be contained in a SWPPP. Compliance with the City requirements to protect stormwater inlets would require the developer to implement BMPs such as the use of straw bales, sandbags, gravel traps, and filters; erosion control measures such as vegetation and physical stabilization; and sediment control measures such as silt fencing, dams, barriers, berms, traps, and basins. City staff inspects and enforces erosion, sediment, and

pollution control requirements in accordance with City codes (Grading, Erosion, and Sediment Control ordinance).

The SWPPP recommended BMPs will be implemented during construction and may include but are not limited to: evaluate the site and protect natural features, schedule work to minimize problems, install perimeter controls, install stabilized construction access, protect storm drain inlets, use other pollution control practices as needed, maintain BMPs, and perform finial steps (stabilize the site and remove all temporary construction BMPs).

Conformance with Construction General Permit requirements, City regulations, and permit requirements along with implementation of BMPs would ensure that construction activities associated with the proposed project would result in a less-than-significant impact related to water quality.

Operation

Development of the site with the metal shop building, truck yard, and parking would increase the amount of impervious surface at the project site. Stormwater generated by the impervious surfaces associated with the proposed project would be directed to two 48-inch wide valley gutters that flow into a bio-retention facility along the eastern and northeastern boundaries of the project site. The The bio-retention facility would be vegetated and contain drainage inlets that connect to a 12-inch storm drain pipe. Stormwater would be retained within this bio-retention facility storage and then directed to the City's existing 42-inch stormwater drain line located within the Pinell Street ROW.

As a standard Condition of Approval (COA) for development projects in the City, the City's Department of Utilities requires preparation and submittal of project-specific drainage studies. With submittal of the required drainage study, the Department of Utilities would review the Improvement Plans for the proposed project prior to approval to ensure that adequate water quality control facilities are incorporated. It should be noted that the proposed project would comply with Section 13.08.145, Mitigation of drainage impacts; design and procedures manual for water, sanitary sewer, storm drainage, and water quality facilities, of the City of Sacramento Code.

Design of the proposed project and conformance with City and state regulations would ensure that a substantial degradation to water quality or violation of any water quality objectives due to increases in sediments and other contaminants generated by construction and/or development of the proposed project would not occur. The proposed project would not result in a project-specific impact related to the degradation of water quality during construction, the proposed project would result in ***no additional significant environmental effects*** beyond the effects analyzed in the Master EIR.

Question B

According to FEMA's Flood Insurance Rate Map, the project site is located within Zone X. Therefore, the proposed project would not place housing or structures within a 100-year flood hazard area, and impacts related to flooding would be considered less than significant. Considering that the proposed project would not result in a project-specific impact related to the exposure of future residents or structures to flooding, the proposed project would result in ***no additional significant environmental effects*** beyond the effects analyzed in the Master EIR.

MITIGATION MEASURES
None required.

FINDINGS
The proposed project would have no additional project-specific environmental effects relating to Hydrology and Water Quality.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
8. NOISE Would the project: A) Result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases?			X
B) Result in residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to the project?			X
C) Result in construction noise levels that exceed the standards in the City of Sacramento general plan or Noise Ordinance?		X	
D) Permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction?			X
E) Permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations?			X
F) Permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic?			X

ENVIRONMENTAL SETTING

Sound

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is defined as loud, unexpected, or annoying sound. In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver.[k]

A logarithmic scale is used to describe sound pressure level in terms of decibels (dB). Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB

[k] Federal Highway Administration. 2008. *Road Construction Noise Model*

higher than one source under the same conditions. For example, if one automobile produces an sound pressure level of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB, rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level 5 dB louder than one source.

Doubling sound energy results in a 3-dB increase in sound. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different than what is measured. It is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness. Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound, would generally be perceived as barely detectable.

Vibration

Similar to sound, vibration can be described as the mechanical energy of a vibrating object transmitted through the ground. Vibration is measured in increments of inches per second peak particle velocity (ppv). Human perception of vibration usually occurs at 0.006-0.019 in/sec ppv.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts due to noise may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of general plan policies:

- Result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases;
- result in residential interior noise levels of 45 dBA Ldn or greater caused by noise level increases due to the project;
- result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance;
- permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction;
- permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations; or
- permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR evaluated the potential for development under the 2035 General Plan to increase noise levels in the community. New noise sources include vehicular traffic, aircraft, railways, light rail and stationary sources. The general plan policies establish exterior (Policy EC 3.1.1) and interior (Policy EC 3.1.3) noise standards. A variety of policies provide standards for the types of development envisioned in the general plan. See Policy EC 3.1.8, which requires new mixed-use, commercial and industrial development to mitigate the effects of noise from operations on adjoining sensitive land use, and Policy 3.1.9, which calls for the City to limit hours of operations for parks and active recreation areas to minimize disturbance to nearby residences. Notwithstanding application of the general plan policies, noise impacts for exterior noise levels (Impact 4.8-1) and interior noise levels (Impact 4.8-2), and vibration impacts (Impact 4.8-4) were found to be significant and unavoidable.

CITY OF SACRAMENTO NOISE ORDANCE

The City of Sacramento has adopted noise ordinances that contain limitations intended to prevent noise that may create dangerous, injurious, noxious, or otherwise objectionable conditions. These standards are to be applied at any point on a residential or agricultural property, such as rear yards, that are intended to accommodate leisure or active use. Average-hourly noise levels are limited to 55 dBA Leq during the daytime hours (7:00 a.m. to 10:00 p.m.) and 50 dBA Leq during the nighttime hours (10:00 p.m. to 7:00 a.m.).

ANSWERS TO CHECKLIST QUESTIONS

Questions A and B

The proposed project includes development of 20,850-square foot metal shop building, paved parking for 20 vehicles, and paved parking for 60 trucks resulting in between 103 and 208 total daily vehicle trips during the week. Increases in noise levels due to the operation of the proposed project would occur from increased vehicle traffic, truck movement within the proposed project, and equipment operation within the metal shop building. A Noise Impact Assessment has been prepared for the proposed project. The assessment identifies potential impacts associated with operiational noise levels at nearby residental land uses. See Appendix D for the Noise Impact Assessment.

Increased Vehicle Traffic

The proposed project would slightly increase the vehicle traffic in the project vicinity due to passenger vehicle and truck traffic to the proposed project. Based on the latest average daily traffic counts in the project vicinity on Rene Avenue between Pinell Street and Astoria Street, the average daily traffic is approximately 678 vehicles[1]. As described above, a doubling of sound energy from doubling the volume of vehicles would result in a 3-dB increase in sound. The proposed project is anticipated to increase the average daily traffic in the project vicinity, but not to the level where a perceivable increase of 3-dB would occur.

Truck Movement

Noise generated by trucks arriving and departing the site, backing up, and coupling/decoupling would be a~~the primary~~ source of noise associated with the proposed project. Truck circulation within the proposed project would occur at slow speeds and would be relatively short in duration. Noise would also be generated from backup beepers during circulation. Trucks would not be permitted to idle within the proposed project. Noise generated from trucks would be relatively short but could occur periodically during operation hours.

The project site is located within an urban area containing existing business parks featuring light industrial and commercial businesses. The nearest sensitive receptor to the project site is approximately 70 feet south of the edge of the project parcel. Rene Avenue separates the project site from the nearest sensitive receptor. As one increases the distance from a source of noise, dispersion and distance attenuation reduce the effects of the source. The noise levels from a source will decrease at a rate of approximately 6 decibels per every doubling of distance from the noise source. As previously mentioned, during operation, truck circulation and back up beepers would generate noise. Truck movements including reversing would occur on the back half of the parcel increasing the distance from sensitive receptors substantially. Given the distance between the project site and nearest sensitive receptor, the proposed project would not result in residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to the proposed project. Considering the above, project operations would not result in increases in off-site traffic noise in excess of the City's standards. On-site activities related to heavy-duty truck circulation,

[1] City of Sacramento. 2014. *Traffic Counts.* Accessed August 2022.

backing, and trailer coupling/uncoupling would not result in exceedances of the City's standards for daytime or nighttime hours. ~~Furthermore, buildout of the project site was previously considered in the Master EIR. The proposed project would be consistent with the General Plan land use designation for the site, and, thus, potential noise increases resulting from buildout of the project site have been previously analyzed and the proposed project would not be anticipated to result in increased noise levels beyond the levels previously analyzed in the Master EIR. Consequently, project-related noise would not result in the exposure of interior or exterior spaces to noise levels in excess of the City's standards beyond what was previously analyzed in the Master EIR and **no additional significant environmental effects** would result~~

Operation

Operational noise would primarily come from the use of pneumatic tools and air compressors, which are the loudest equipment anticipated to be used onsite. According to the noise level modeled in the Noise Impact Assessment, predicted operation noise levels at the property lines of residential land uses nearest to the proposed project, would range from approximately 43 to 66 dBA Leq. Predicted operiational noise levels at two nearby residential land uses would exceed the City's daytime noise standard of 55 dBA Leq. Additionally, predicted operational noise levels at four nearby resdential land uses would exceed the City's nighttime noise standard of 50 dBA. The Noise Impact Assessment includes several recommended measures to reduce noise levels below the City of Sacramento daytime noise standard of 55 dBA Leq. These measures have been incorporated as project design features and include no service bay doors constructed along the southern building façade, installation of the noise barrier fences described in the project description, fully enclosing air compressors, and operating the business during daytime hours.I. Predicted operational noise levels at the property lines of residential land uses with the incorporation of the project features, would range from approximately 39 to 54.6 dBA. With inclusion of project design features discussed above, predicted operational activities associated with the proposed truck repair facility would not exceed the City's daytime noise standard of 55 dBA.

Predicted operational noise levels were determined for edge of residential property lines closest to the project. As such, the intervening distance to the residence would further reduce the predicted noise levels of the project. Residential interior noise levels will be lower than exterior noise levels, The exterior walls of residences would further reduce predicted noise levels. According to the U.S. Department of Housing and Urban Development Sound Transmission Class (STC) Guidance[m] commonly constructed exterior walls found in single-family residences have a STC rating between 35 and 49. The STC rating measures the sound absorption of a material (i.e. an exterior wall with a STC of 35 would reduce an external noise by approximately 35 decibels) and with predicted exterior noise levels at edges of nearby residences ranging between 39 to 54.6 dBA, expected interior noise levels would be below 45 dBA through attenuation by the walls of the residences.. Therefore, the proposed project would not result in residential interior noise levels of 45 dBA or greater.

Buildout of the project site was previously considered in the Master EIR. The proposed project would be consistent with the General Plan land use designation for the site. The proposed project as redesigned based upon the Noise Impact Assessment would not be anticipated to result in increased noise levels beyond the levels previously anticipated in the Master EIR. Consequently, project-related noise would not result in the exposure of interior or exterior spaces to noise levels in excess of the City's standards beyond what was previously analyzed in the Master EIR and ***no additional significant environmental effects*** would result.

Question C

The construction phase of the proposed project would increase noise in the proposed project vicinity. The nearest noise-sensitive land uses to the proposed project are residences located 70 feet south of the

[m] U.S. Department of Housing and Development. https://www.hud.gov/sites/documents/DOC_16419.PDF

proposed project. Anticipated construction equipment and their typical noise levels at 50 feet are provided in Table NOI-1 below.

Table NOI-1

Typical Construction Equipment Noise Levels

Equipment	Noise Level (dBA at 50 feet)
	L_{max}
Backhoes	80
Compressors	81
Grader	85
Rollers	74
Scrapers	89

FHWA Road Construction Noise Model (FHWA 2008)

The City of Sacramento's Noise Ordinance of the City Code exempts construction activities from the noise standards, provided that they take place between the hours of 7:00 AM and 6:00 PM, Monday through Saturday, and 9:00 AM and 6:00 PM Sundays and holidays. Although construction activities associated with the proposed project could result in infrequent periods of high noise levels, the noise would not occur for sustained periods of time and would only occur during City permitted construction noise hours.

Based on the above, the proposed project has the potential to result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance; however, such effects can be mitigated to less than significant. Implementation of Mitigation Measure NOI-1 would reduce the above impact related to noise generation to a less-than-significant level. Therefore, implementation of the proposed project, with implementation of Mitigation Measure NOI-1, would result in ***no additional significant environmental effects*** beyond what was analyzed by the Master EIR.

Questions D through F

During construction, heavy equipment would be used for grading, excavation, paving, and building construction which would generate localized vibration. The nearest structure to the proposed project is approximately 10 feet away. Typical vibration levels at 25 feet are provided in Table NOI-2 (below).

Table NOI-2

Typical Construction Equipment Vibration Levels

Equipment	Reference vibration at 25 feet (ppv)

Vibratory roller	0.210
Large bulldozer	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

California Department of Transportation. Transportation and Construction Vibration Guidance Manual. September 2013

Because vibration levels generated by the type of construction equipment which will be required for the proposed project dissipate very rapidly with distance, vibration levels at the nearest residences are expected to be below 0.1 inches/second peak particle velocity at nearby residences over the course of project construction activities. Peak particle velocities below 0.1 inches/second would be well below the City's thresholds for damage to structures, and, as a result, construction of the proposed project would result in a less-than-significant impact.

Based on the above, the proposed project would not expose any residential or commercial areas, or historic buildings or archaeological sites to excessive vibration levels, and the project's impact would be less than significant. Considering that the proposed project would not result in a project-specific impact related to the exposure of future residents or structures to vibration levels exceeding the City's standards, the proposed project would result in ***no additional significant environmental effects*** beyond the effects analyzed in the Master EIR.

MITIGATION MEASURES

NOI-1 *Prior to issuance of a grading permit, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included within the project plans and specifications, subject to review and approval by the City Planning Division. The project applicant shall demonstrate, to the satisfaction of the City that the project complies with the following:*

- The applicant shall ensure that construction activities are consistent with City Code Section 8.68.060. Construction activities shall only take place between the hours of 7:00 AM and 6:00 PM Monday through Saturday and 9:00 AM and 6:00 PM Sundays and holidays.
- All heavy construction equipment used on the proposed project shall be maintained in good operating condition, with all internal combustion, engine-driven equipment fitted with intake and exhaust mufflers that are in good condition.
- Electrically powered equipment shall be used instead of pneumatic or internal combustion-powered equipment, where feasible.
- Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise sensitive receptors.

- Project area and site access road speed limits shall be established and enforced during the construction period.

- Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.

- The use of noise-producing signals, including horns, whistles, alarms and bells shall be for safety warning purposes only. A noise complaint coordinator shall be retained amongst the construction crew to be responsible for responding to any local complaints about construction noise. When a complaint is received, the coordinator shall notify the City within 24 hours of the complaint and determine the cause of the noise complaint and shall implement reasonable measures to resolve the compliant, as deemed acceptable by the City.

FINDINGS

All additional significant environmental effects of the proposed project relating to Noise can be mitigated to a less-than-significant level.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
9. PUBLIC SERVICES Would the project result in the need for new or altered services related to fire protection, police protection, school facilities, or other governmental services beyond what was anticipated in the 2035 General Plan?			X

ENVIRONMENTAL SET"ING

The project site is located in the northeastern portion of the City of Sacramento, approximately 6 miles northeast from the downtown core of the City, and is served with fire protection, police protection, and parks by the City of Sacramento.

The Sacramento Fire Department (SFD) provides fire protection services to the entire City and some small areas just outside the City boundaries within the County limits. SFD provides fire protection and emergency medical services to the proposed project area. First-response service is provided by Station 17, located at 1311 Bell Avenue approximately 0.9 miles west of the project site; and Station 18, located at 746 North Market Street approximately 3.3 miles west of the site.

Police protection services are provided by the Sacramento Police Department (SPD) for areas within the City. The SPD provides law enforcement protection to the project site from the SPD located at 300 Richards Boulevard, which is approximately 5.3 miles southwest of the project site. In addition to the SPD and Sheriff's Department, the California Highway Patrol and the Regional Transit Police Department provide police protection within the City of Sacramento. The nearest SPD station to the project site is the 3550 Marysville Boulevard station, located approximately 1.0 miles southwest.

The project site is within the Robla School District. The Robla School District serves approximately 2,500 students through five elementary schools and one preschool. The nearest school is Bell Avenue Elementary School, which is located approximately 600 feet northwest of the proposed project on the west side of Pinell Street.

The City of Sacramento Department of Youth, Parks and Community Enrichment (YPCE) oversees more than 4,829 acres of parkland and manages more than 230 parks within the City. The project site is located approximately 0.3 miles east of Five Star Park.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact would be considered significant if the project resulted in the need for new or altered services related to fire protection, police protection, school facilities, or other governmental services beyond what was anticipated in the 2035 General Plan.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR evaluated the potential effects of the 2035 General Plan on various public services. These include police, fire protection, schools, libraries and emergency services (Chapter 4.10).

The general plan provides that adequate staffing levels for police and fire are important for the long-term health, safety and well-being of the community (Goal PHS 1.1, PHS 2.1). The Master EIR concluded that effects of development that could occur under the general plan would be less than significant.

General plan policies that call for the City to consider impacts of new development on schools (see, for example, Policy ERC 1.1.2 setting forth locational criteria, and Policy ERC 1.1.4 that encourages joint-use development of facilities) reduce impacts on schools to a less-than-significant level. (Impacts 4.10-3, 4) Impacts on library facilities were considered less than significant (Impact 4.10-5).

ANSWERS TO CHECKLIST QUESTIONS
Question A

The Master EIR discusses the potential for impacts to public services as a result of increased development and population in the City of Sacramento. The Master EIR analyzes the 2035 General Plan policies related to law enforcement service, fire protection service, educational service, and library service, to determine if adequate public services will exist as development and population in the City increases. Individual projects developed in the City of Sacramento would be required to comply with the public service policies presented in the 2035 General Plan.

The project applicant will be required to pay development fees for City of Sacramento law enforcement services and fire protection services. Additionally, the proposed project would incorporate sprinkler systems, adequate fire flow and flow duration, fire resistance rated construction materials, portable fire extinguishers, fire alarm and detection systems, smoke control systems, lighted exit signs, fire doors, to comply with the most current California Fire Code regulations. Thus, the proposed project would not substantially increase the need for police or fire services beyond what has been previously anticipated in the 2035 General Plan and analyzed in the Master EIR.

The proposed project does not include the development of residential facilities which would directly increase population in the project vicinity; therefore, existing educational or recreational facilities would not need to be expanded.

Increased demand on public services resulting from implementation of the proposed project would be consistent with what was planned for in the City's 2035 General Plan and analyzed in the Master EIR. The proposed project would result in ***no additional significant environmental effects*** beyond the effects analyzed in the Master EIR.

MITIGATION MEASURES
None required.

FINDINGS
The proposed project would have no additional project-specific environmental effects relating to Public Services.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
10. RECREATION Would the project: A) Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities?			X
B) Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan?			X

ENVIRONMENTAL SETTING

The City of Sacramento Department of Youth, Parks and Community Enrichment maintains all parks and recreational facilities within the City of Sacramento. As noted in the City's General Plan Background Report, the City currently contains 230 developed and undeveloped park sites, 88 miles of off-street bikeways and trails, 21 lakes/ponds or beaches, over 20 aquatic facilities, and extensive recreation facilities in the City parks. The developed park sites comprise 218 total parks with 4,829 acres of parkland.

Residential and non-residential projects that are built in the City of Sacramento are required to pay a park development impact fee per Chapter 18.56 of the Sacramento City Code. The fees collected pursuant to Chapter 18.56 are primarily used to finance the construction of neighborhood and community park facilities.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to recreational resources are considered significant if the proposed project would do either of the following:

- Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities; or
- create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

Chapter 4.9 of the Master EIR considered the effects of the 2035 General Plan on the City's existing parkland, urban forest, recreational facilities and recreational services. The general plan identified a goal of providing an integrated park and recreation system in the City (Goal ERC 2.1). New residential development will be required to dedicate land, pay in-lieu fees or otherwise contribute a fair share to the acquisition and development of parks and recreation facilities (Policy ERC 2.2.5). Impacts were considered less than significant after application of the applicable policies. (Impacts 4.9-1 and 4.9-2)

ANSWERS TO CHECKLIST QUESTIONS

Questions A and B

The proposed project consists of the construction of a 20,850-square feet metal shop building and development of the associated truck yard. The proposed project does not include development of residential units. Therefore, the proposed project will not generate an increase in residents that would use park and recreational facilities, accelerate the deterioration of existing facilities, or create a need for construction of new recreational facilities. Additionally, the project applicant would be required to pay a City park development impact fee prior to the issuance of a building permit. The City would determine the

required park development impact fee at the time of submittal of building permit applications. Payment of development fees would ensure that a less-than-significant impact would occur regarding recreation infrastructure. Considering that the proposed project would not result in a project-specific impact related to recreation, the proposed project would result in ***no additional significant environmental effects*** beyond the effects analyzed in the Master EIR.

MITIGATION MEASURES
None required.

FINDINGS
The proposed project would have no additional project-specific environmental effects relating to Recreation.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
11. TRANSPORTATION AND CIRCULATION Would the project: A) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities?			X
B) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			X
C) Substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X
D) Result in inadequate emergency access?			X

ENVIRONMENTAL SETTING

The proposed project is located in the northeastern portion of Sacramento, north of I-80. The proposed project is generally bound by Rene Avenue to the south, commercial development to the north, east and west, a vacant lot to the west and residential development on the south side of Rene Avenue across from the proprosed project parcel. I-80 is an eight-lane freeway that provides regional access to the proposed project via either the interchange with Raley Boulevard approximately 0.5 miles to the west or with Winters Street approximately 0.4 miles to the east.

Access to the proposed project would be constructed from the north side of Rene Avenue. Rene Avenue within the proposed project vicinity is an east-west 2-lane roadway without bicycle lanes. Pedestrian facilities including sidewalks are limited and only found adjacent to the existing commercial development to the east and west of the project parcel. Parking is found along the north and south of Rene Avenue along the shoulder of the roadway. The speed limit along Rene Avenue is and a 25 mile per hour. Access to the proposed project would be via a driveway that would be 45-feet wide.

STANDARDS OF SIGNIFICANCE

For purposes of this IS, transportation impacts may be considered significant if construction and/or operation of the proposed project would result in any of the following conditions or potential thereof, after implementation of 2035 General Plan policies:

- conflict with a program, plan, ordinance or policy addressing transit, bicycle, and pedestrian facilities; or
- conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

Transportation and circulation were discussed in the Master EIR in Chapter 4.12. Various modes of travel were included in the analysis, including vehicular, transit, bicycle, pedestrian and aviation components. Provisions of the 2035 General Plan that provide substantial guidance include Mobility Goal 1.1, calling for a transportation system that is effectively planned, managed, operated and maintained, promotion of multimodal choices (Policy M 1.2.1), support for state highway expansion and management consistent with the Sacramento Area Council of Governments Metropolitan Transportation Plan/Sustainable Communities Strategy (SACOG MTP/SCS) (Policy M 1.5.6) and development that encourages walking and biking (Policy LU 4.2.1).

While the general plan includes numerous policies that direct the development of the City's transportation system, the Master EIR concluded that the general plan development would result in significant and unavoidable effects. See Impacts 4.12-3 (roadway segments in adjacent communities, and Impact 4.12-4 (freeway segments).

In 2013, Senate Bill (SB) 743 was signed into law. SB 743 is intended to promote the state's goals of encouraging infill development, alternative transportation, and reduced greenhouse gas (GHG) emissions. To promote these goals SB 743 directed the Governor's Office of Planning and Research (OPR) to consider new methods of evaluating transportation impacts under CEQA as an alternative to existing measures of congestion and delay (typically expressed as level-of-service). As a result of SB 743, the CEQA Guidelines were revised to identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts, effective July 1, 2020. To address a project's potential to increase VMT, the City is in the process of drafting a VMT threshold to evaluate project impacts and also updating its Circulation Element to include goals and policies that address reducing in city-wide VMT.

OPR published its Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018. The Technical Advisory provides guidance on projects that are not required to evaluate VMT. This includes projects that generate fewer than 110 trips per day, which may be assumed to cause a less-than significant transportation impact.

ANSWERS TO CHECKLIST QUESTIONS

Question A

The proposed project does not include any uses that would potentially conflict with an existing City program, ordinance, or policy that addresses circulation. The proposed project is located along Rene Avenue, which currently does not contain bicycle lanes but it does include existing portions of sidewalk along the northside of the street. The proposed project would construct a new driveway that would include new sidewalk along the project frontage that the proposed project would tie into improving pedestrian facilities in the area.

Question B

A VMT analysis was prepared for the proposed project. The analysis concluded the project predominantly provides repair services to trucks with most trips generated by the project coming from customers' trucks being serviced. Therefore, it was concluded the project is a retail project for the purposes of a VMT analysis. See Appendix E~~D~~ for the VMT analysis.

In December 2018, the Governor's Office of Planning and Research (OPR) published technical guidance for analyzing transportation and land uses projects. Because retail development often redistributes trips rather than creating new travel demand, the OPR guidance recommends lead agencies analyze the net change in VMT to indicate transportation impact of retail projects. The potential VMT impacts, according to this approach, hinge on whether the project can be considered local-serving or regional. By adding retail to existing neighborhoods, local serving retail projects can shorten trips and reduce overall VMT. In contrast, regional destination retail projects would draw customers from larger trade areas, potentially increasing VMT. The OPR guidance suggests that any retail projects larger than 50,000 square feet might be considered regional serving retail and therefore require an analysis of net change in VMT.

The City of Sacramento has published its guidelines for performing VMT analysis for proposed projects. Specifically, the guidelines provide a section for screening proposed projects to "quickly determine whether a project may be presumed to have a less than significant VMT impact without conducting a detailed project generated VMT analysis." The first screening criteria provided is for small projects defined as, "projects with up to 10 single unit homes, projects with up to 15 multiple unit homes, retail projects up to 50,000 cumulative square feet, light industrial projects up to 20,000 square feet, and office projects up to 10,000 square feet." As the project is well under the 50,000 square-foot threshold for retail projects, according to the City's guidelines the project may be assumed to cause a less than significant transporation impact, The proposed project meets OPR's Technical Advisory and the City of Sacramento screening threshold for retail smaller than 50,000 squre feet. Therefore, the proposed project will not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

Questions C and D

The proposed project would be constructed along Rene Avenue, which is a straight east-west roadway

with a 25 miles per hour speed limit. The proposed project has been designed to ensure adequate ingress and egress and allow for adequate sight distances. The proposed project does not include any unusual features design features that could create a potentially hazardous situation. Additionally, the proposed project would develop a 45-foot-wide driveway to provide adequate access in the case of an emergency.

Therefore, the proposed project would not conflict with a program plan, ordinance, or policy addressing circulation, would not be inconsistent with CEQA guidelines Section 15064.3, would not substantially increase hazards due to an unusual design feature, or result in inadequate emergency access. Therefore, implementation of the proposed project would result in ***no additional significant environmental effects***.

MITIGATION MEASURES

None required.

FINDINGS

The proposed project would have no additional project-specific environmental effects relating to Transportation and Circulation.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
12. TRIBAL CULTURAL RESOURCES Would the project: A) Cause a substantial adverse change in the significance of a tribal cultural resource, as defined in Public Resources Code 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: 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		X	
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.		X	

ENVIRONMENTAL SETTING

Please reference the Cultural Resources Chapter for the Ethnohistory of the historic indigenous groups that occupied the region. This section focuses on the contemporary tribal communities and tribal cultural resources as they pertain to AB52.

This section analyzes and evaluates the potential impacts of the project on Tribal cultural resources, both identified and undiscovered. Tribal cultural resources, as defined by Assembly Bill (AB) 52, Statutes of 2014, in Public Resources Code (PRC) Section 21074, are sites, features, places, cultural landscapes, sacred places and objects, with cultural value to a Tribe. A Tribal cultural landscape is defined as a geographic area (including both cultural and natural resources and the wildlife therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.

The unanticipated find of Native American human remains would also be considered a Tribal cultural resource, and are therefore analyzed in this section.

The proposed project area is situated within the lands traditionally occupied by the Valley Nisenan, or Southern Maidu. Many descendants of Valley Nisenan throughout the larger Sacramento region belong to the United Auburn Indian Community, Shingle Springs, Ione Band, Colfax-Todds Valley, and Wilton Rancheria Tribes. The Tribes actively participate in the identification, evaluation, preservation, and restoration of Tribal Cultural Resources.

Data Sources/Methodology

Under PRC section 21080.3.1 and 21082.3, the City must consult with tribes traditionally and culturally affiliated with the proposed project area that have requested formal notification and responded with a request for consultation. The parties must consult in good faith. Consultation is deemed concluded when the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource when one is present or when a party concludes that mutual agreement cannot be reached. Mitigation measures agreed on during the consultation process must be recommended for inclusion in the environmental document.

On April 28, 2022, a search of the Sacred Lands Database was requested from the Native American Heritage Commission (NAHC). On May 14, 2022 a response was received from the NAHC regarding Sacred Sites within the vicinity of the proposed project area. The search of the Sacred Lands File was negative.

Native American Consultation

On March 18, 2022, formal invitations to participate in Assemby Bill (AB52) consultation on the proposed project were sent by the City to the tribal representation that have previously requested to receive notifications of proposed projects. These tribes represented include:

- United Auburn Indian Community
- Wilton Rancheria
- Shingle Springs Band of Mi-Wok Indians
- Buena Vista Rancheria of Me-Wuk Indians

The Wilton Rancheria provided a request for consultation on March 24, 2022 and closed consultation on August 16, 2022, ultimately declining to consult on the project. No response was received from the United Auburn Indian Community, the Shingle Springs Band of Mi-Wok Indians or the Buena Vista Rancheria of Me-Wuk Indians within 30 calendar days of the request for form invitation under AB52.

Regulatory Setting

Federal

There are no Federal plans, policies, or regulations related to Tribal Cultural Resources that are directly applicable to the proposed project, however Section 106 of the National Historic Preservation Act does require consultation with Native Americans to identify and consider certain types of cultural resources. Cultural resources of Native American origin identified as a result of the identification efforts conducted under Section 106 may also qualify as tribal cultural resources under CEQA.

State

California Environmental Quality Act — Statute and Guidelines. CEQA requires that public agencies that finance or approve public or private projects must assess the effects of the project on tribal cultural resources. Tribal cultural resources are defined in Public Resources Code (PRC) 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 that is (1) listed or determined eligible for listing on the California Register of Historical Resources (CRHR) or a local register, or (2) that are 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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

California Public Resources Code Section 5024. PRC Section 5024.1 establishes the CRHR, which is the authoritative guide for identifying the State's historical resources to indicate what properties are to be protected, if feasible, from substantial adverse change. For a resource to be eligible for the CRHR, it must be more than 50 years old, retain its historic integrity, and satisfy one or more of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Is associated with the lives of persons important in our past.
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- Has yielded, or may be likely to yield, information important in prehistory or history.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, a tribal cultural resource is considered to be a significant resource if the resource is: 1) listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources; or 2) the resource has been 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. For purposes of this Initial Study, impacts on tribal cultural resources may be considered significant if construction and/or implementation of the proposed project would result in the following:

- Cause a substantial change in the significance of a tribal cultural resource as defined in Public Resources Code 21074.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR evaluated the potential effects of development under the 2035 General Plan on prehistoric and historic resources (see Master EIR Chapter 4.4 and Appendix C – Background Report, B. Cultural Resources Appendix), but did not specifically address tribal cultural resources because that resource type had not yet been defined in CEQA at the time the Master EIR was adopted. The Master EIR identified significant and unavoidable effects on historic resources and archaeological resources, some of which could be tribal cultural resources as defined Public Resources Code 21074. Ground-disturbing activities resulting from implementation of development under the 2035 General Plan could affect the integrity of an archaeological site (which may be a tribal cultural resource), thereby causing a substantial change in the significance of the resource. General plan policies identified as reducing such effects on cultural resources that may also be tribal cultural resources include identification of resources on project sites (Policy HCR 2.1.1); implementation of applicable laws and regulations (Policy HCR 2.1.2); consultation with appropriate organizations and individuals including the Native American Heritage Commission and implementation of their consultation guidelines (Policy HCR 2.1.3); enforcement programs to promote the maintenance, rehabilitation, preservation, and interpretation of the City's historic resources (Policy HCR 2.1.4); listing of qualified historic resources under appropriate national, State, and local registers (Policy HCR 2.1.5); consideration of historic and cultural resources in planning studies (Policy HCR 2.1.6); enforcement of compliance with local, State, and federal historic and cultural preservation requirements (Policy HCR 2.1.8); and early consultation with owners and land developers to minimize effects (Policy HCR 2.1.10).

Of particular relevance to this proposed project are policies that ensure compliance with protocol that protect or mitigate impacts to archaeological resources (Policy HCR 2.1.16) and that encourage preservation and minimization of impacts on cultural resources (Policy HCR 2.1.17).

Mitigation Measures from 2035 General Plan Master EIR that apply to the Project

None. As noted above, the Master EIR did not specifically address tribal cultural resources but did address archaeological resources and other cultural resources and noted that because the presence of significant archaeological resources is typically unknown until the resource is uncovered, which often occurs during ground disturbing activities, adverse effects may occur prior to discovery of the archaeological resources. Therefore, although laws and regulations combined with General Plan policy would substantially reduce impacts to these resources once they are discovered, the initial impacts that might occur prior to discovery would be considered potentially significant and that protection of all important archaeological resources from damage or destruction cannot be assured.

ANSWERS TO CHECKLIST QUESTIONS

Question A

According to research conducted at the North Central Information Center of the California Historical Resources Information System and pedestrian survey conducted on-site, no known archaeological resources that could be considered tribal cultural resources (TCRs), listed or determined eligible for listing in the California Register, or included in a local register of historical resources as defined in PRC Section 5020.1(k), pursuant to PRC Section 21074(a)(1), would be impacted by the project.

According to the provision of PRC Section 21080.3, four Native American tribes have requested to receive notification of projects within the jurisdiction of the City of Sacramento. As previously mentioned, only one requested consultation. The City of Sacramento and the Wilton Rancheria exchanged communications with the Wilton Rancheria ultimately declining consultation on the project on August 16, 2022. It is possible yet undiscovered tribal cultural resources could be encountered or damaged during ground-disturbing construction activities. Because the project site could contain unknown TRCs and should a TCR be identified that may be impacted, appropriate steps for management would be taken as determined by the City. Mitigation measures TCR-1(a) through TCR-1(c) provides specific steps to be taken in the event that unanticipated TCRs, including those of Native American origin, are encountered during project construction. With this mitigation implemented, the potential for impacts to tribal cultural resources would be ***less than significant.***

MITIGATION MEASURES

Mitigation Measure TCR-1a: Conduct Cultural Resources and Tribal Cultural Resources Sensitivity and Awareness Training Program Prior to Ground-Disturbing Activities

> The City shall require the applicant/contractor to provide a cultural resources and tribal cultural resources sensitivity and awareness training program (Worker Environmental Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The WEAP will be developed in coordination with an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology, as well as culturally affiliated Native American tribes. The City may invite Native American representatives from interested culturally affiliated Native American tribes to participate. The WEAP shall be conducted before any project-related construction activities begin at the project site. The WEAP will include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations.

The WEAP will also describe appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or tribal cultural resources are encountered. The WEAP will emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and will discuss appropriate behaviors and responsive actions, consistent with Native American tribal values.

Mitigation Measure TCR-1b: In the Event that Cultural Resources or Tribal Cultural Resources Are Discovered During Construction, Implement Avoidance and Minimization Measures to Avoid Significant Impacts and Procedures to Evaluate Resources.

If cultural resources or tribal cultural resources (such as structural features, unusual amounts of bone or shell, artifacts, or human remains) are encountered at the project site during construction, work shall be suspended within 100 feet of the find (based on the apparent distribution of cultural materials), and the construction contractor shall immediately notify the project's City representative. Avoidance and preservation in place is the preferred manner of mitigating impacts to cultural resources and tribal cultural resources. This will be accomplished, if feasible, by several alternative means, including:

- Planning construction to avoid tribal cultural resources, archaeological sites and/or other cultural resources; incorporating cultural resources within parks, green-space or other open space; covering archaeological resources; deeding a cultural resource to a permanent conservation easement; or other preservation and protection methods agreeable to consulting parties and regulatory authorities with jurisdiction over the activity.
- Recommendations for avoidance of cultural resources and tribal cultural resources will be reviewed by the City representative, interested culturally affiliated Native American tribes and other appropriate agencies, in light of factors such as costs, logistics, feasibility, design, technology and social, cultural and environmental considerations, and the extent to which avoidance is consistent with project objectives. Avoidance and design alternatives may include realignment within the project site to avoid cultural resources or tribal cultural resources, modification of the design to eliminate or reduce impacts to cultural resources or tribal cultural resources or modification or realignment to avoid highly significant features within a cultural resource or tribal cultural resource.
- Native American representatives from interested culturally affiliated Native American tribes will be invited to review and comment on these analyses and shall have the opportunity to meet with the City representative and its representatives who have technical expertise to identify and recommend feasible avoidance and design alternatives, so that appropriate and feasible avoidance and design alternatives can be identified.
- If the discovered cultural resource or tribal cultural resource can be avoided, the construction contractor(s), will install protective fencing outside the site boundary, including a 100-foot buffer area, before construction restarts. The boundary of a cultural resource or a tribal cultural resource will be determined in consultation with interested culturally affiliated Native American tribes and tribes will be invited to monitor the installation of fencing. Use of temporary and permanent forms of protective fencing will be determined in consultation with Native American representatives from interested culturally affiliated Native American tribes.
- The construction contractor(s) will maintain the protective fencing throughout construction to avoid the site during all remaining phases of construction. The area will be demarcated as an "Environmentally Sensitive Area".

If a cultural resource or a tribal cultural resource cannot be avoided, the following performance standard shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of cultural resources or tribal cultural resources:

- Each resource will be evaluated for California Register of Historical Resources- (CRHR) eligibility through application of established eligibility criteria (California Code of Regulations 15064.636), in consultation with consulting Native American Tribes, as applicable.

If a cultural resource or a tribal cultural resource is determined to be eligible for listing in the CRHR, the City will avoid damaging effects to the resource in accordance with California PRC Section 21084.3, if feasible. The City shall coordinate the investigation of the find with a qualified archaeologist (meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology) approved by the City and with interested culturally affiliated Native American tribes that respond to the City's invitation. As part of the site investigation and resource assessment, the City and the archaeologist shall consult with interested culturally affiliated Native American tribes to assess the significance of the find, make recommendations for further evaluation and treatment as necessary and provide proper management recommendations should potential impacts to the resources be determined by the City to be significant. A written report detailing the site assessment, coordination activities, and management recommendations shall be provided to the City representative by the qualified archaeologist. These recommendations will be documented in the project record. For any recommendations made by interested culturally affiliated Native American tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

Native American representatives from interested culturally affiliated Native American Tribes and the City representative will also consult to develop measures for long-term management of any discovered tribal cultural resources. Consultation will be limited to actions consistent with the jurisdiction of the City and taking into account ownership of the subject property. To the extent that the City has jurisdiction, routine operation and maintenance within tribal cultural resources retaining tribal cultural integrity shall be consistent with the avoidance and minimization standards identified in this mitigation measure.

If the City determines that the project may cause a significant impact to a tribal cultural resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to the resource. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which an impact conclusion of less-than significant may be reached:

- Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treat the resource with culturally appropriate dignity taking into account the Tribal cultural values and meaning of the resource, including, but not limited to, the following:
- Protect the cultural character and integrity of the resource.
- Protect the traditional use of the resource.
- Protect the confidentiality of the resource.
- Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.
- Protect the resource.

Mitigation Measure TCR-1c: Implement Procedures in the Event of the Inadvertent Discovery of Human Remains.

If an inadvertent discovery of human remains is made at any time during project-related construction activities or project planning, the City the following performance standards shall be met prior to implementing or continuing actions such as construction, which may result in damage to or destruction of human remains. In accordance with the California Health and Safety Code

(HSC), if human remains are encountered during ground-disturbing activities, the City shall immediately halt potentially damaging excavation in the area of the remains and notify the Sacramento County Coroner and a professional archaeologist to determine the nature of the remains. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (HSC Section 7050.5[b]).

If the human remains are of historic age and are determined to be not of Native American origin, the City will follow the provisions of the HSC Section 7000 (et seq.) regarding the disinterment and removal of non-Native American human remains.

If the Coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (HSC Section 7050[c]). After the Coroner's findings have been made, the archaeologist and the NAHC-designated Most Likely Descendant (MLD), in consultation with the landowner, shall determine the ultimate treatment and disposition of the remains. The responsibilities of the City for acting upon notification of a discovery of Native American human remains are identified in California PRC Section 5097.9 et seq.

FINDINGS

All additional significant environmental effects of the proposed project relating to Tribal Cultural Resources can be mitigated to a ***less-than-significant level***.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
13. UTILITIES AND SERVICE SYSTEMS Would the project: A) Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments?			X
B) Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts?			X

ENVIRONMENTAL SETTING

The proposed project would be provided wastewater collection and treatment services by the City of Sacramento and the Sacramento Regional County Sanitation District (SRCSD). Wastewater generated in the project area is collected in the City's system through a series of sewer pipes and pump stations or through gravity flow. Once collected in the City's system, sewage flows into the SRCSD interceptor system, where the sewage is conveyed to the Sacramento Regional Wastewater Treatment Plant. The City's Department of Utilities is responsible for providing and maintaining water, sewer collection, storm drainage, and flood control services for residents and businesses within the city limits. The proposed project would include the construction of a sanitary sewer line that would direct wastewater from the proposed metal shop building to the existing 10-inch sanitary sewer line within the Rene Avenue ROW.

Water service for the proposed project would be provided by the City of Sacramento. The proposed project would include connections to the existing 8-inch water line in the Rene Avenue ROW. These connections would include water service with meter, irrigation service with meter, and fire service.

The City of Sacramento does not provide commercial solid waste collection services. Rather, commercial garbage, recycling or yard waste services are provided by a franchised hauler authorized by the Sacramento Solid Waste Authority to collect commercial garbage and commingled recycling within the City. Kiefer Landfill, located at 12701 Kiefer Boulevard in Sloughhouse, California, is the primary location for the disposal of waste by the City of Sacramento. According to the Master EIR, the landfill is permitted to accept up to 10,815 tons per day and the current peak and average daily disposal is much, much lower than the permitted amount. The landfill is anticipated to be capable of adequately serving the area, including the anticipated population growth, until the year 2065.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact would be considered significant if the project resulted in the need for new or altered services related to fire protection, police protection, or school facilities beyond what was anticipated in the 2035 General Plan:

- result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments or
- require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR evaluated the effects of development under the 2035 General Plan on water supply, sewer and storm drainage, solid waste, electricity, natural gas and telecommunications. See Chapter 4.11.

The Master EIR evaluated the impacts of increased demand for water that would occur with development under the 2035 General Plan. Policies in the general plan would reduce the impact generally to a less-than-significant level (see Impact 4.11-1) but the Master EIR concluded that the potential increase in demand for potable water in excess of the City's existing diversion and treatment capacity, and which could require construction of new water supply facilities, would result in a significant and unavoidable effect (Impact 4.11-2). The potential need for expansion of wastewater treatment facilities was identified as having a less-than-significant effect (Impact 4.11-4). Impacts on solid waste facilities were less than significant (Impact 4.11-5). Implementation of energy efficient standards as set forth in Titles 20 and 24 of the California Code of Regulations for residential and non-residential buildings, would reduce effects for utilities and service systems to a less-than-significant level.

ANSWERS TO CHECKLIST QUESTIONS
Questions A and B

The project site is undeveloped and does not currently have utilities or service systems. However, the proposed project is adjacent to development and utilities are readily accessible along the Rene Avenue ROW.

The City of Sacramento is responsible for sewer collection in the proposed project vicinity and buildout capacity was anticipated in the 2035 General Plan. The proposed project would be consistent with the General Plan, so increased demand from the development of the proposed site is anticipated. As part of the COAs for the proposed project, the City's Department of Utilities will review the proposed connection during the building permit submittal. Review of the proposed connection will ensure that the proposed project would include adequate wastewater infrastructure.

The City of Sacramento is responsible for providing and maintaining water for the proposed project vicinity and the Urban Water Management Plan analyzed the water supply and water demand. The City has sufficient water supply entitlements to meet demand up to the year 2035 under all drought conditions. The proposed project would be consistent with the General Plan, so increased demand from the development of the proposed site is anticipated. As part of the COAs for the proposed project, the City's Department of Utilities will require preparation of a water study. Preparation and review of the water study will ensure that the proposed project would include adequate water infrastructure.

Solid waste from surrounding developments are currently being transferred to Kiefer Landfill for disposal. The 2035 General Plan Master EIR concluded that adequate capacity at local landfills exists for full buildout of the general plan. The proposed project would be consistent with the General Plan, so increased demand from the development of the proposed site is anticipated. Adequate capacity would be expected to be available to serve the proposed project's solid waste disposal needs.

Because adequate capacity exists to serve the project's demands in addition to existing commitments, and construction of new utilities or expansion of existing facilities would not be required, the proposed project would result in a less-than-significant impact. Considering that the proposed project would not result in a project-specific impact related to utilities and service systems, the proposed project would result in ***no additional significant environmental effects*** beyond the effects analyzed in the Master EIR.

MITIGATION MEASURES
None required.

FINDINGS
The proposed project would have no additional project-specific environmental effects relating to Utilities and Service Systems.

MANDATORY FINDINGS OF SIGNIFICANCE

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
14. MANDATORY FINDINGS OF SIGNIFICANCE A.) Does the project have the potential 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?			X
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.)			X
C.) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X

Answers to Checklist Questions

Question A

With implementation of project-specific mitigation measures, the proposed project would not adversely impact sensitive natural communities or special-status animals. However, a small potential exists for previously undiscovered tribal cultural resources and/or human remains to be unearthed during excavation and site grading activities. The proposed project would implement and comply with applicable Sacramento 2035 General Plan policies, as discussed throughout this IS/MND. With implementation of the mitigation measures required by this IS/MND, compliance with City of Sacramento 2035 General Plan policies, and application of standard BMPs during construction, the proposed project impacts less than significant and ***no additional significant environmental effects*** would occur with implementation of the proposed project.

Question B

The proposed project is consistent with the 2035 General Plan land use designation for the site and, thus, the proposed project was generally anticipated by the City per the 2035 General Plan. As such, the proposed project was included in the cumulative analysis of City buildout in the Master EIR. Applicable policies from the 2035 General Plan would be implemented as part of the proposed project, as well as the project-specific mitigation measures included in this IS/MND, to reduce the proposed project's contribution to potentially cumulative impacts. The potential impacts of the proposed project would be individually limited and would not be cumulatively considerable. As demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than significant

level with implementation of project-specific mitigation measures and compliance with applicable 2035 General Plan policies. When viewed in conjunction with other closely related past, present or reasonably foreseeable future projects, development of the proposed project would not contribute to cumulative impacts in the City of Sacramento and ***no additional significant environmental effects*** would occur with implementation of the proposed project.

Question C

Implementation of the proposed project could result in temporary impacts related to air quality, noise during the construction period, and tribal cultural resources. In particular, the mitigation measures related to air quality and noise during the construction period are intended to protect public health. In addition to the project-specific mitigation measures within this IS/MND, the proposed project would be required to implement all applicable policies of the 2035 General Plan. Implementation of all such mitigation measures and policies would reduce any potential direct or indirect impacts that could occur to human beings or various resources and, as demonstrated in this IS/MND, all impacts would be reduced to less-than-significant levels. Therefore, the proposed project's impact would be less than significant and ***no additional significant environmental effects*** would occur with implementation of the proposed project.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would potentially be affected by this project.

	Aesthetics		Hazards
	Air Quality	X	Noise
X	Biological Resources		Public Services
X	Cultural Resources		Recreation
	Energy and Mineral Resources		Transportation/Circulation
	Geology and Soils	X	Tribal Cultural Resources
	Hydrology and Water Quality		Utilities and Service Systems
	None Identified		

SECTION V - DETERMINATION

On the basis of the initial study:

X I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2035 General Plan Master EIR; (b) the proposed project is consistent with the 2035 General Plan land use designation and the permissible densities and intensities of use for the project site; (c) that the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR are adequate for the proposed project; and (d) the proposed project will have additional significant environmental effects not previously examined in the Master EIR. A Mitigated Negative Declaration will be prepared. Mitigation measures from the Master EIR will be applied to the project as appropriate, and additional feasible mitigation measures and alternatives will be incorporated to revise the proposed project before the negative declaration is circulated for public review, to avoid or mitigate the identified effects to a level of insignificance. (CEQA Guidelines Section 15178(b))

Ron Bess

Signature

September 5, 2023

Date

Printed Name

Ron Bess

REFERENCES CITED

California Air Pollution Control Officers Association. 2022. *California Emission Estimator Model (CalEEMod) version 2020.4.0*

California Air Resources Board. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April.

California Department of Fish and Wildlife. 2022. *California Natural Diversity Database.* Website: https://wildlife.ca.gov/Data/CNDDB (Accessed August 2022)

Califoria Department of Transportation. 2013. *Transportation and Construction Vibration Guidance Manual.*

California Native Plant Society. 2022. *Inventory of Rare and Endangered Plants of California (online edition, v9-01.01).* Website: https://www.rareplants.cnps.org (Accessed August 2022)

City of Sacramento. 2015a. 2035 General Plan

City of Sacramento 2015b. *Sacramento 2035 General Plan Master Environmental Impact Report*

City of Sacramento. 2022. *Sacramento City Code*

City of Sacramento. 2014. *Traffic Counts* (Accessed August 2022).

Environmental Protection Agency. *Environments and Contaminants: Criteria Air Pollutants.* Website: https://www.epa.gov/sites/default/files/2018-01/documents/ace3_criteria_air_pollutants_updated_1-19-18_508_0.pdf (Accessed August 2022).

Federal Highway Administration. 2008. *Road Construction Noise Manual.*

Natural Resources Conservation Service. 2022. *Web Soil Survey.* Website: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (Accessed August 2022)

Sacramento Metro Air Quality Management District. 2020. *Guide to Air Quality Assessment in Sacramento County.* Website: https://www.airquality.org/residents/ceqa-land-use-planning/ceqa-guidance-tools (Accessed January 2022)

Sacramento Stormwater Quality Partnership. 2014. *Stormwater Quality Design Manual for the Sacramento Region.*

United States Department of Housing and Urban Development. *Noise Notebook Chapter 4 Supplement. Sound Transmission Class Guidance.* Website: https://www.hud.gov/sites/documents/DOC_16419.PDF

United States Fish and Wildlife Service. 2022a. *Information for Planning and Consultation.* Website: https://ecos.fws.gov/ipac (Accessed August 2022)

United States Fish and Wildlife Service. 2022b. *National Wetlands Inventory.* Website: https://www.fws.gov/wetlands (Accessed August 2022)

Appendix A. CalEEMod Modeling

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Annual

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

Elite Truck Repair Project

Sacramento Metropolitan AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	20.85	1000sqft	0.48	20,850.00	0
Parking Lot	170.00	1000sqft	3.90	170,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Assumed operational in 2024

Land Use - 20,850 sq ft building with associated car parking and truck parking. Remaining lot acreage is vegetated for bio retention

Construction Phase - Total days representative of project size

Off-road Equipment - Number suitable for site construction phases

Off-road Equipment - Number suitable for phase

Off-road Equipment - Number suitable for phase

Off-road Equipment - Number suitable for phase

Off-road Equipment -

Grading - graded area

Architectural Coating - low VOC paint

Area Coating - Low voc paint

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Annual

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

Construction Off-road Equipment Mitigation - water exposed soil during construction.

Mobile Land Use Mitigation -

Area Mitigation - low voc paint

Energy Mitigation - install photovoltaic

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaCoating	Area_EF_Residential_Exterior	100	50
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstructionPhase	NumDays	18.00	9.00
tblConstructionPhase	NumDays	230.00	200.00
tblConstructionPhase	NumDays	18.00	13.00
tblConstructionPhase	PhaseEndDate	5/23/2024	3/22/2024
tblConstructionPhase	PhaseEndDate	4/3/2024	2/21/2024
tblConstructionPhase	PhaseEndDate	4/29/2024	3/11/2024
tblConstructionPhase	PhaseStartDate	4/30/2024	3/12/2024
tblConstructionPhase	PhaseStartDate	4/4/2024	2/22/2024
tblGrading	AcresOfGrading	2.50	7.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Annual

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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00

2.0 Emissions Summary

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Annual

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

2.1 Overall Construction

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	tons/yr										MT/yr					
2023	0.1304	1.1221	1.2247	2.7400e-003	0.1101	0.0464	0.1565	0.0394	0.0439	0.0833	0.0000	243.1588	243.1588	0.0376	7.9400e-003	246.4629
2024	0.0972	0.2713	0.3358	7.2000e-004	0.0158	0.0109	0.0266	4.2700e-003	0.0103	0.0146	0.0000	63.2548	63.2548	0.0103	1.8400e-003	64.0601
Maximum	**0.1304**	**1.1221**	**1.2247**	**2.7400e-003**	**0.1101**	**0.0464**	**0.1565**	**0.0394**	**0.0439**	**0.0833**	**0.0000**	**243.1588**	**243.1588**	**0.0376**	**7.9400e-003**	**246.4629**

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	tons/yr										MT/yr					
2023	0.1098	1.0071	1.0887	2.5400e-003	0.0812	0.0419	0.1232	0.0258	0.0394	0.0652	0.0000	227.9128	227.9128	0.0359	7.9400e-003	231.1753
2024	0.0927	0.2451	0.3042	6.7000e-004	0.0158	9.9700e-003	0.0257	4.2700e-003	9.3700e-003	0.0137	0.0000	59.6785	59.6785	9.9300e-003	1.8400e-003	60.4747
Maximum	**0.1098**	**1.0071**	**1.0887**	**2.5400e-003**	**0.0812**	**0.0419**	**0.1232**	**0.0258**	**0.0394**	**0.0652**	**0.0000**	**227.9128**	**227.9128**	**0.0359**	**7.9400e-003**	**231.1753**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Annual

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	**11.02**	**10.14**	**10.74**	**7.23**	**22.95**	**9.36**	**18.70**	**31.27**	**9.93**	**19.44**	**0.00**	**6.14**	**6.14**	**4.24**	**0.00**	**6.08**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**4-3-2023**	**7-2-2023**	0.3349	0.3074
2	**7-3-2023**	**10-2-2023**	0.4677	0.4127
3	**10-3-2023**	**1-2-2024**	0.4705	0.4155
4	**1-3-2024**	**4-2-2024**	0.3478	0.3189
		Highest	0.4705	0.4155

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	tons/yr										MT/yr					
Area	0.0987	2.0000e-005	2.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7400e-003	4.7400e-003	1.0000e-005	0.0000	5.0500e-003
Energy	4.0000e-003	0.0364	0.0305	2.2000e-004		2.7600e-003	2.7600e-003		2.7600e-003	2.7600e-003	0.0000	99.4119	99.4119	6.2700e-003	1.3900e-003	99.9842
Mobile	0.0477	0.0637	0.4472	9.4000e-004	0.0971	7.5000e-004	0.0978	0.0260	7.0000e-004	0.0267	0.0000	87.0757	87.0757	5.9100e-003	4.3200e-003	88.5123
Waste						0.0000	0.0000		0.0000	0.0000	5.2473	0.0000	5.2473	0.3101	0.0000	13.0000
Water						0.0000	0.0000		0.0000	0.0000	1.7059	3.9009	5.6068	6.2300e-003	3.7500e-003	6.8811
Total	**0.1503**	**0.1000**	**0.4802**	**1.1600e-003**	**0.0971**	**3.5200e-003**	**0.1006**	**0.0260**	**3.4700e-003**	**0.0294**	**6.9532**	**190.3933**	**197.3465**	**0.3285**	**9.4600e-003**	**208.3826**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Annual

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

2.2 Overall Operational

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	tons/yr										MT/yr					
Area	0.0987	2.0000e-005	2.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7400e-003	4.7400e-003	1.0000e-005	0.0000	5.0500e-003
Energy	4.0000e-003	0.0364	0.0305	2.2000e-004		2.7600e-003	2.7600e-003		2.7600e-003	2.7600e-003	0.0000	69.4942	69.4942	3.5200e-003	1.0600e-003	69.8979
Mobile	0.0477	0.0637	0.4472	9.4000e-004	0.0971	7.5000e-004	0.0978	0.0260	7.0000e-004	0.0267	0.0000	87.0757	87.0757	5.9100e-003	4.3200e-003	88.5123
Waste						0.0000	0.0000		0.0000	0.0000	5.2473	0.0000	5.2473	0.3101	0.0000	13.0000
Water						0.0000	0.0000		0.0000	0.0000	1.7059	3.9009	5.6068	6.2300e-003	3.7500e-003	6.8811
Total	**0.1503**	**0.1000**	**0.4802**	**1.1600e-003**	**0.0971**	**3.5200e-003**	**0.1006**	**0.0260**	**3.4700e-003**	**0.0294**	**6.9532**	**160.4756**	**167.4288**	**0.3258**	**9.1300e-003**	**178.2964**

	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**	**15.71**	**15.16**	**0.84**	**3.49**	**14.44**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/29/2023	5/5/2023	5	5	
2	Grading	Grading	5/6/2023	5/17/2023	5	8	
3	Building Construction	Building Construction	5/18/2023	2/21/2024	5	200	

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

4	Paving	Paving	2/22/2024	3/11/2024	5	13	
5	Architectural Coating	Architectural Coating	3/12/2024	3/22/2024	5	9	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 3.9

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 31,275; Non-Residential Outdoor: 10,425; Striped Parking Area: 10,200 (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	1	6.00	9	0.56
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	6.00	132	0.36
Paving	Rollers	1	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Annual

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

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
Site Preparation	2	5.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	80.00	31.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2023

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	tons/yr										MT/yr					
Fugitive Dust					0.0190	0.0000	0.0190	8.7000e-003	0.0000	8.7000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0900e-003	0.0217	0.0133	3.0000e-005		9.9000e-004	9.9000e-004		9.1000e-004	9.1000e-004	0.0000	2.5596	2.5596	8.3000e-004	0.0000	2.5803
Total	**2.0900e-003**	**0.0217**	**0.0133**	**3.0000e-005**	**0.0190**	**9.9000e-004**	**0.0200**	**8.7000e-003**	**9.1000e-004**	**9.6100e-003**	**0.0000**	**2.5596**	**2.5596**	**8.3000e-004**	**0.0000**	**2.5803**

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

3.2 Site Preparation - 2023

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	tons/yr										MT/yr					
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	4.0000e-005	2.0000e-005	2.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0727	0.0727	0.0000	0.0000	0.0734
Total	**4.0000e-005**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0727**	**0.0727**	**0.0000**	**0.0000**	**0.0734**

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	tons/yr										MT/yr					
Fugitive Dust					7.4200e-003	0.0000	7.4200e-003	3.3900e-003	0.0000	3.3900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0900e-003	0.0217	0.0133	3.0000e-005		9.9000e-004	9.9000e-004		9.1000e-004	9.1000e-004	0.0000	2.5596	2.5596	8.3000e-004	0.0000	2.5803
Total	**2.0900e-003**	**0.0217**	**0.0133**	**3.0000e-005**	**7.4200e-003**	**9.9000e-004**	**8.4100e-003**	**3.3900e-003**	**9.1000e-004**	**4.3000e-003**	**0.0000**	**2.5596**	**2.5596**	**8.3000e-004**	**0.0000**	**2.5803**

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

3.2 Site Preparation - 2023

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	tons/yr										MT/yr					
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	4.0000e-005	2.0000e-005	2.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0727	0.0727	0.0000	0.0000	0.0734
Total	**4.0000e-005**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0727**	**0.0727**	**0.0000**	**0.0000**	**0.0734**

3.3 Grading - 2023

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	tons/yr										MT/yr					
Fugitive Dust					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2400e-003	0.0656	0.0501	1.1000e-004		2.8000e-003	2.8000e-003		2.5700e-003	2.5700e-003	0.0000	9.3299	9.3299	3.0200e-003	0.0000	9.4053
Total	**6.2400e-003**	**0.0656**	**0.0501**	**1.1000e-004**	**0.0283**	**2.8000e-003**	**0.0311**	**0.0137**	**2.5700e-003**	**0.0163**	**0.0000**	**9.3299**	**9.3299**	**3.0200e-003**	**0.0000**	**9.4053**

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

3.3 Grading - 2023

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	tons/yr										MT/yr					
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	1.5000e-004	9.0000e-005	1.2100e-003	0.0000	3.8000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3026	0.3026	1.0000e-005	1.0000e-005	0.3054
Total	**1.5000e-004**	**9.0000e-005**	**1.2100e-003**	**0.0000**	**3.8000e-004**	**0.0000**	**3.8000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3026**	**0.3026**	**1.0000e-005**	**1.0000e-005**	**0.3054**

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	tons/yr										MT/yr					
Fugitive Dust					0.0111	0.0000	0.0111	5.3400e-003	0.0000	5.3400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2400e-003	0.0656	0.0501	1.1000e-004		2.8000e-003	2.8000e-003		2.5700e-003	2.5700e-003	0.0000	9.3299	9.3299	3.0200e-003	0.0000	9.4053
Total	**6.2400e-003**	**0.0656**	**0.0501**	**1.1000e-004**	**0.0111**	**2.8000e-003**	**0.0139**	**5.3400e-003**	**2.5700e-003**	**7.9100e-003**	**0.0000**	**9.3299**	**9.3299**	**3.0200e-003**	**0.0000**	**9.4053**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Annual

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

3.3 Grading - 2023

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	tons/yr										MT/yr					
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	1.5000e-004	9.0000e-005	1.2100e-003	0.0000	3.8000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3026	0.3026	1.0000e-005	1.0000e-005	0.3054
Total	**1.5000e-004**	**9.0000e-005**	**1.2100e-003**	**0.0000**	**3.8000e-004**	**0.0000**	**3.8000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3026**	**0.3026**	**1.0000e-005**	**1.0000e-005**	**0.3054**

3.4 Building Construction - 2023

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	tons/yr										MT/yr					
Off-Road	0.1001	0.9009	0.9722	1.7100e-003		0.0417	0.0417		0.0396	0.0396	0.0000	146.6163	146.6163	0.0314	0.0000	147.4002
Total	**0.1001**	**0.9009**	**0.9722**	**1.7100e-003**		**0.0417**	**0.0417**		**0.0396**	**0.0396**	**0.0000**	**146.6163**	**146.6163**	**0.0314**	**0.0000**	**147.4002**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Annual

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

3.4 Building Construction - 2023

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	tons/yr										MT/yr					
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	3.2700e-003	0.1224	0.0369	4.8000e-004	0.0147	6.5000e-004	0.0154	4.2500e-003	6.2000e-004	4.8700e-003	0.0000	46.5713	46.5713	1.1500e-003	6.8300e-003	48.6364
Worker	0.0186	0.0115	0.1507	4.1000e-004	0.0476	2.5000e-004	0.0478	0.0127	2.3000e-004	0.0129	0.0000	37.7064	37.7064	1.2100e-003	1.0900e-003	38.0618
Total	**0.0219**	**0.1339**	**0.1876**	**8.9000e-004**	**0.0623**	**9.0000e-004**	**0.0632**	**0.0169**	**8.5000e-004**	**0.0178**	**0.0000**	**84.2777**	**84.2777**	**2.3600e-003**	**7.9200e-003**	**86.6982**

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	tons/yr										MT/yr					
Off-Road	0.0794	0.7858	0.8363	1.5100e-003		0.0372	0.0372		0.0351	0.0351	0.0000	131.3703	131.3703	0.0297	0.0000	132.1126
Total	**0.0794**	**0.7858**	**0.8363**	**1.5100e-003**		**0.0372**	**0.0372**		**0.0351**	**0.0351**	**0.0000**	**131.3703**	**131.3703**	**0.0297**	**0.0000**	**132.1126**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Annual

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

3.4 Building Construction - 2023

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	tons/yr										MT/yr					
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	3.2700e-003	0.1224	0.0369	4.8000e-004	0.0147	6.5000e-004	0.0154	4.2500e-003	6.2000e-004	4.8700e-003	0.0000	46.5713	46.5713	1.1500e-003	6.8300e-003	48.6364
Worker	0.0186	0.0115	0.1507	4.1000e-004	0.0476	2.5000e-004	0.0478	0.0127	2.3000e-004	0.0129	0.0000	37.7064	37.7064	1.2100e-003	1.0900e-003	38.0618
Total	**0.0219**	**0.1339**	**0.1876**	**8.9000e-004**	**0.0623**	**9.0000e-004**	**0.0632**	**0.0169**	**8.5000e-004**	**0.0178**	**0.0000**	**84.2777**	**84.2777**	**2.3600e-003**	**7.9200e-003**	**86.6982**

3.4 Building Construction - 2024

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	tons/yr										MT/yr					
Off-Road	0.0220	0.1978	0.2267	4.0000e-004		8.6100e-003	8.6100e-003		8.1600e-003	8.1600e-003	0.0000	34.3970	34.3970	7.2900e-003	0.0000	34.5794
Total	**0.0220**	**0.1978**	**0.2267**	**4.0000e-004**		**8.6100e-003**	**8.6100e-003**		**8.1600e-003**	**8.1600e-003**	**0.0000**	**34.3970**	**34.3970**	**7.2900e-003**	**0.0000**	**34.5794**

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

3.4 Building Construction - 2024

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	tons/yr										MT/yr					
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	7.3000e-004	0.0281	8.3900e-003	1.1000e-004	3.4500e-003	1.5000e-004	3.6000e-003	1.0000e-003	1.4000e-004	1.1400e-003	0.0000	10.7167	10.7167	2.6000e-004	1.5800e-003	11.1929
Worker	4.0700e-003	2.4000e-003	0.0328	9.0000e-005	0.0112	6.0000e-005	0.0112	2.9700e-003	5.0000e-005	3.0200e-003	0.0000	8.5559	8.5559	2.6000e-004	2.4000e-004	8.6332
Total	**4.8000e-003**	**0.0305**	**0.0412**	**2.0000e-004**	**0.0146**	**2.1000e-004**	**0.0148**	**3.9700e-003**	**1.9000e-004**	**4.1600e-003**	**0.0000**	**19.2726**	**19.2726**	**5.2000e-004**	**1.8200e-003**	**19.8261**

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	tons/yr										MT/yr					
Off-Road	0.0175	0.1716	0.1951	3.5000e-004		7.7100e-003	7.7100e-003		7.2600e-003	7.2600e-003	0.0000	30.8208	30.8208	6.9300e-003	0.0000	30.9940
Total	**0.0175**	**0.1716**	**0.1951**	**3.5000e-004**		**7.7100e-003**	**7.7100e-003**		**7.2600e-003**	**7.2600e-003**	**0.0000**	**30.8208**	**30.8208**	**6.9300e-003**	**0.0000**	**30.9940**

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

3.4 Building Construction - 2024

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	tons/yr										MT/yr					
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	7.3000e-004	0.0281	8.3900e-003	1.1000e-004	3.4500e-003	1.5000e-004	3.6000e-003	1.0000e-003	1.4000e-004	1.1400e-003	0.0000	10.7167	10.7167	2.6000e-004	1.5800e-003	11.1929
Worker	4.0700e-003	2.4000e-003	0.0328	9.0000e-005	0.0112	6.0000e-005	0.0112	2.9700e-003	5.0000e-005	3.0200e-003	0.0000	8.5559	8.5559	2.6000e-004	2.4000e-004	8.6332
Total	**4.8000e-003**	**0.0305**	**0.0412**	**2.0000e-004**	**0.0146**	**2.1000e-004**	**0.0148**	**3.9700e-003**	**1.9000e-004**	**4.1600e-003**	**0.0000**	**19.2726**	**19.2726**	**5.2000e-004**	**1.8200e-003**	**19.8261**

3.5 Paving - 2024

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	tons/yr										MT/yr					
Off-Road	3.9300e-003	0.0373	0.0564	9.0000e-005		1.7800e-003	1.7800e-003		1.6400e-003	1.6400e-003	0.0000	7.5553	7.5553	2.3900e-003	0.0000	7.6152
Paving	5.1100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.0400e-003**	**0.0373**	**0.0564**	**9.0000e-005**		**1.7800e-003**	**1.7800e-003**		**1.6400e-003**	**1.6400e-003**	**0.0000**	**7.5553**	**7.5553**	**2.3900e-003**	**0.0000**	**7.6152**

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

3.5 Paving - 2024

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	tons/yr										MT/yr					
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	2.3000e-004	1.3000e-004	1.8300e-003	1.0000e-005	6.2000e-004	0.0000	6.2000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.4756	0.4756	1.0000e-005	1.0000e-005	0.4799
Total	**2.3000e-004**	**1.3000e-004**	**1.8300e-003**	**1.0000e-005**	**6.2000e-004**	**0.0000**	**6.2000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.4756**	**0.4756**	**1.0000e-005**	**1.0000e-005**	**0.4799**

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	tons/yr										MT/yr					
Off-Road	3.9300e-003	0.0373	0.0564	9.0000e-005		1.7800e-003	1.7800e-003		1.6400e-003	1.6400e-003	0.0000	7.5553	7.5553	2.3900e-003	0.0000	7.6152
Paving	5.1100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.0400e-003**	**0.0373**	**0.0564**	**9.0000e-005**		**1.7800e-003**	**1.7800e-003**		**1.6400e-003**	**1.6400e-003**	**0.0000**	**7.5553**	**7.5553**	**2.3900e-003**	**0.0000**	**7.6152**

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

3.5 Paving - 2024

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	tons/yr										MT/yr					
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	2.3000e-004	1.3000e-004	1.8300e-003	1.0000e-005	6.2000e-004	0.0000	6.2000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.4756	0.4756	1.0000e-005	1.0000e-005	0.4799
Total	**2.3000e-004**	**1.3000e-004**	**1.8300e-003**	**1.0000e-005**	**6.2000e-004**	**0.0000**	**6.2000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.4756**	**0.4756**	**1.0000e-005**	**1.0000e-005**	**0.4799**

3.6 Architectural Coating - 2024

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	tons/yr										MT/yr					
Archit. Coating	0.0601					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.1000e-004	5.4800e-003	8.1500e-003	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	1.1490	1.1490	6.0000e-005	0.0000	1.1506
Total	**0.0610**	**5.4800e-003**	**8.1500e-003**	**1.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**1.1490**	**1.1490**	**6.0000e-005**	**0.0000**	**1.1506**

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

3.6 Architectural Coating - 2024

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	tons/yr										MT/yr					
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	1.9000e-004	1.1000e-004	1.5600e-003	0.0000	5.3000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4053	0.4053	1.0000e-005	1.0000e-005	0.4089
Total	**1.9000e-004**	**1.1000e-004**	**1.5600e-003**	**0.0000**	**5.3000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4053**	**0.4053**	**1.0000e-005**	**1.0000e-005**	**0.4089**

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	tons/yr										MT/yr					
Archit. Coating	0.0601					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.1000e-004	5.4800e-003	8.1500e-003	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	1.1490	1.1490	6.0000e-005	0.0000	1.1506
Total	**0.0610**	**5.4800e-003**	**8.1500e-003**	**1.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**1.1490**	**1.1490**	**6.0000e-005**	**0.0000**	**1.1506**

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

3.6 Architectural Coating - 2024

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	tons/yr										MT/yr					
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	1.9000e-004	1.1000e-004	1.5600e-003	0.0000	5.3000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4053	0.4053	1.0000e-005	1.0000e-005	0.4089
Total	**1.9000e-004**	**1.1000e-004**	**1.5600e-003**	**0.0000**	**5.3000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4053**	**0.4053**	**1.0000e-005**	**1.0000e-005**	**0.4089**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Annual

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	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0477	0.0637	0.4472	9.4000e-004	0.0971	7.5000e-004	0.0978	0.0260	7.0000e-004	0.0267	0.0000	87.0757	87.0757	5.9100e-003	4.3200e-003	88.5123
Unmitigated	0.0477	0.0637	0.4472	9.4000e-004	0.0971	7.5000e-004	0.0978	0.0260	7.0000e-004	0.0267	0.0000	87.0757	87.0757	5.9100e-003	4.3200e-003	88.5123

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	103.42	41.49	104.25	261,885	261,885
Parking Lot	0.00	0.00	0.00		
Total	103.42	41.49	104.25	261,885	261,885

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
General Light Industry	10.00	5.00	6.50	59.00	28.00	13.00	92	5	3
Parking Lot	10.00	5.00	6.50	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
General Light Industry	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351
Parking Lot	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351

5.0 Energy Detail

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Annual

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable 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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	29.9177	29.9177	2.7600e-003	3.3000e-004	30.0863
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	59.8354	59.8354	5.5200e-003	6.7000e-004	60.1726
NaturalGas Mitigated	4.0000e-003	0.0364	0.0305	2.2000e-004		2.7600e-003	2.7600e-003		2.7600e-003	2.7600e-003	0.0000	39.5764	39.5764	7.6000e-004	7.3000e-004	39.8116
NaturalGas Unmitigated	4.0000e-003	0.0364	0.0305	2.2000e-004		2.7600e-003	2.7600e-003		2.7600e-003	2.7600e-003	0.0000	39.5764	39.5764	7.6000e-004	7.3000e-004	39.8116

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

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	tons/yr										MT/yr					
General Light Industry	741635	4.0000e-003	0.0364	0.0305	2.2000e-004		2.7600e-003	2.7600e-003		2.7600e-003	2.7600e-003	0.0000	39.5764	39.5764	7.6000e-004	7.3000e-004	39.8116
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	0.0000
Total		**4.0000e-003**	**0.0364**	**0.0305**	**2.2000e-004**		**2.7600e-003**	**2.7600e-003**		**2.7600e-003**	**2.7600e-003**	**0.0000**	**39.5764**	**39.5764**	**7.6000e-004**	**7.3000e-004**	**39.8116**

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	tons/yr										MT/yr					
General Light Industry	741635	4.0000e-003	0.0364	0.0305	2.2000e-004		2.7600e-003	2.7600e-003		2.7600e-003	2.7600e-003	0.0000	39.5764	39.5764	7.6000e-004	7.3000e-004	39.8116
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	0.0000
Total		**4.0000e-003**	**0.0364**	**0.0305**	**2.2000e-004**		**2.7600e-003**	**2.7600e-003**		**2.7600e-003**	**2.7600e-003**	**0.0000**	**39.5764**	**39.5764**	**7.6000e-004**	**7.3000e-004**	**39.8116**

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	308997	50.1740	4.6300e-003	5.6000e-004	50.4567
Parking Lot	59500	9.6614	8.9000e-004	1.1000e-004	9.7159
Total		**59.8354**	**5.5200e-003**	**6.7000e-004**	**60.1726**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	154499	25.0870	2.3100e-003	2.8000e-004	25.2284
Parking Lot	29750	4.8307	4.5000e-004	5.0000e-005	4.8579
Total		**29.9177**	**2.7600e-003**	**3.3000e-004**	**30.0863**

6.0 Area Detail

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

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	tons/yr										MT/yr					
Mitigated	0.0987	2.0000e-005	2.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7400e-003	4.7400e-003	1.0000e-005	0.0000	5.0500e-003
Unmitigated	0.0987	2.0000e-005	2.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7400e-003	4.7400e-003	1.0000e-005	0.0000	5.0500e-003

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	tons/yr										MT/yr					
Architectural Coating	6.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0924					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	2.0000e-005	2.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7400e-003	4.7400e-003	1.0000e-005	0.0000	5.0500e-003
Total	**0.0987**	**2.0000e-005**	**2.4300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.7400e-003**	**4.7400e-003**	**1.0000e-005**	**0.0000**	**5.0500e-003**

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	tons/yr										MT/yr					
Architectural Coating	6.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0924					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	2.0000e-005	2.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7400e-003	4.7400e-003	1.0000e-005	0.0000	5.0500e-003
Total	**0.0987**	**2.0000e-005**	**2.4300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.7400e-003**	**4.7400e-003**	**1.0000e-005**	**0.0000**	**5.0500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.6068	6.2300e-003	3.7500e-003	6.8811
Unmitigated	5.6068	6.2300e-003	3.7500e-003	6.8811

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.82156 / 0	5.6068	6.2300e-003	3.7500e-003	6.8811
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**5.6068**	**6.2300e-003**	**3.7500e-003**	**6.8811**

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.82156 / 0	5.6068	6.2300e-003	3.7500e-003	6.8811
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**5.6068**	**6.2300e-003**	**3.7500e-003**	**6.8811**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.2473	0.3101	0.0000	13.0000
Unmitigated	5.2473	0.3101	0.0000	13.0000

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	25.85	5.2473	0.3101	0.0000	13.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**5.2473**	**0.3101**	**0.0000**	**13.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	25.85	5.2473	0.3101	0.0000	13.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**5.2473**	**0.3101**	**0.0000**	**13.0000**

9.0 Operational Offroad

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Annual

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

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

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

Elite Truck Repair Project

Sacramento Metropolitan AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	20.85	1000sqft	0.48	20,850.00	0
Parking Lot	170.00	1000sqft	3.90	170,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Assumed operational in 2024

Land Use - 20,850 sq ft building with associated car parking and truck parking. Remaining lot acreage is vegetated for bio retention

Construction Phase - Total days representative of project size

Off-road Equipment - Number suitable for site construction phases

Off-road Equipment - Number suitable for phase

Off-road Equipment - Number suitable for phase

Off-road Equipment - Number suitable for phase

Off-road Equipment -

Grading - graded area

Architectural Coating - low VOC paint

Area Coating - Low voc paint

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

Construction Off-road Equipment Mitigation - water exposed soil during construction.

Mobile Land Use Mitigation -

Area Mitigation - low voc paint

Energy Mitigation - install photovoltaic

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaCoating	Area_EF_Residential_Exterior	100	50
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstructionPhase	NumDays	18.00	9.00
tblConstructionPhase	NumDays	230.00	200.00
tblConstructionPhase	NumDays	18.00	13.00
tblConstructionPhase	PhaseEndDate	5/23/2024	3/22/2024
tblConstructionPhase	PhaseEndDate	4/3/2024	2/21/2024
tblConstructionPhase	PhaseEndDate	4/29/2024	3/11/2024
tblConstructionPhase	PhaseStartDate	4/30/2024	3/12/2024
tblConstructionPhase	PhaseStartDate	4/4/2024	2/22/2024
tblGrading	AcresOfGrading	2.50	7.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00

2.0 Emissions Summary

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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					
2023	1.6033	16.4212	14.6233	0.0326	7.6509	0.6996	8.0478	3.4921	0.6437	4.0946	0.0000	3,191.1686	3,191.1686	0.8341	0.1069	3,234.4630
2024	13.5953	11.9317	14.3799	0.0323	0.7953	0.4640	1.2593	0.2152	0.4398	0.6550	0.0000	3,160.9182	3,160.9182	0.4525	0.1043	3,203.3207
Maximum	**13.5953**	**16.4212**	**14.6233**	**0.0326**	**7.6509**	**0.6996**	**8.0478**	**3.4921**	**0.6437**	**4.0946**	**0.0000**	**3,191.1686**	**3,191.1686**	**0.8341**	**0.1069**	**3,234.4630**

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					
2023	1.6033	16.4212	12.9453	0.0301	3.0070	0.6996	3.5607	1.3681	0.6437	2.0055	0.0000	2,983.6909	2,983.6909	0.8341	0.1069	3,026.4194
2024	13.5953	10.5509	12.7162	0.0298	0.7953	0.4165	1.2118	0.2152	0.3923	0.6075	0.0000	2,953.4405	2,953.4405	0.4314	0.1043	2,995.3136
Maximum	**13.5953**	**16.4212**	**12.9453**	**0.0301**	**3.0070**	**0.6996**	**3.5607**	**1.3681**	**0.6437**	**2.0055**	**0.0000**	**2,983.6909**	**2,983.6909**	**0.8341**	**0.1069**	**3,026.4194**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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	4.87	11.52	7.87	54.98	4.08	48.72	57.29	4.38	44.98	0.00	6.53	6.53	1.65	0.00	6.46

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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	0.5412	1.8000e-004	0.0195	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0418	0.0418	1.1000e-004		0.0445
Energy	0.0219	0.1992	0.1673	1.2000e-003		0.0151	0.0151		0.0151	0.0151		239.0442	239.0442	4.5800e-003	4.3800e-003	240.4647
Mobile	0.3523	0.3544	2.9331	6.1200e-003	0.6080	4.5100e-003	0.6125	0.1621	4.2200e-003	0.1663		623.7311	623.7311	0.0377	0.0277	632.9214
Total	**0.9153**	**0.5538**	**3.1199**	**7.3200e-003**	**0.6080**	**0.0197**	**0.6277**	**0.1621**	**0.0194**	**0.1815**		**862.8170**	**862.8170**	**0.0424**	**0.0321**	**873.4306**

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	0.5412	1.8000e-004	0.0195	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0418	0.0418	1.1000e-004		0.0445
Energy	0.0219	0.1992	0.1673	1.2000e-003		0.0151	0.0151		0.0151	0.0151		239.0442	239.0442	4.5800e-003	4.3800e-003	240.4647
Mobile	0.3523	0.3544	2.9331	6.1200e-003	0.6080	4.5100e-003	0.6125	0.1621	4.2200e-003	0.1663		623.7311	623.7311	0.0377	0.0277	632.9214
Total	**0.9153**	**0.5538**	**3.1199**	**7.3200e-003**	**0.6080**	**0.0197**	**0.6277**	**0.1621**	**0.0194**	**0.1815**		**862.8170**	**862.8170**	**0.0424**	**0.0321**	**873.4306**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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	Site Preparation	Site Preparation	4/29/2023	5/5/2023	5	5	
2	Grading	Grading	5/6/2023	5/17/2023	5	8	
3	Building Construction	Building Construction	5/18/2023	2/21/2024	5	200	
4	Paving	Paving	2/22/2024	3/11/2024	5	13	
5	Architectural Coating	Architectural Coating	3/12/2024	3/22/2024	5	9	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 3.9

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 31,275; Non-Residential Outdoor: 10,425; Striped Parking Area: 10,200 (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	1	6.00	9	0.56
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

Grading	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	6.00	132	0.36
Paving	Rollers	1	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

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
Site Preparation	2	5.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	80.00	31.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Water Exposed Area

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

3.2 Site Preparation - 2023

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					7.6128	0.0000	7.6128	3.4820	0.0000	3.4820			0.0000			0.0000
Off-Road	0.8360	8.6628	5.3377	0.0117		0.3967	0.3967		0.3650	0.3650		1,128.5772	1,128.5772	0.3650		1,137.7023
Total	**0.8360**	**8.6628**	**5.3377**	**0.0117**	**7.6128**	**0.3967**	**8.0096**	**3.4820**	**0.3650**	**3.8470**		**1,128.5772**	**1,128.5772**	**0.3650**		**1,137.7023**

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	0.0168	8.0900e-003	0.1359	3.5000e-004	0.0380	2.0000e-004	0.0382	0.0101	1.8000e-004	0.0103		35.1443	35.1443	9.8000e-004	8.7000e-004	35.4291
Total	**0.0168**	**8.0900e-003**	**0.1359**	**3.5000e-004**	**0.0380**	**2.0000e-004**	**0.0382**	**0.0101**	**1.8000e-004**	**0.0103**		**35.1443**	**35.1443**	**9.8000e-004**	**8.7000e-004**	**35.4291**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

3.2 Site Preparation - 2023

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					2.9690	0.0000	2.9690	1.3580	0.0000	1.3580			0.0000			0.0000
Off-Road	0.8360	8.6628	5.3377	0.0117		0.3967	0.3967		0.3650	0.3650	0.0000	1,128.5772	1,128.5772	0.3650		1,137.7023
Total	**0.8360**	**8.6628**	**5.3377**	**0.0117**	**2.9690**	**0.3967**	**3.3658**	**1.3580**	**0.3650**	**1.7230**	**0.0000**	**1,128.5772**	**1,128.5772**	**0.3650**		**1,137.7023**

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	0.0168	8.0900e-003	0.1359	3.5000e-004	0.0380	2.0000e-004	0.0382	0.0101	1.8000e-004	0.0103		35.1443	35.1443	9.8000e-004	8.7000e-004	35.4291
Total	**0.0168**	**8.0900e-003**	**0.1359**	**3.5000e-004**	**0.0380**	**2.0000e-004**	**0.0382**	**0.0101**	**1.8000e-004**	**0.0103**		**35.1443**	**35.1443**	**9.8000e-004**	**8.7000e-004**	**35.4291**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

3.3 Grading - 2023

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5595	16.4002	12.5194	0.0266		0.6991	0.6991		0.6432	0.6432		2,571.1145	2,571.1145	0.8316		2,591.9033
Total	**1.5595**	**16.4002**	**12.5194**	**0.0266**	**7.0826**	**0.6991**	**7.7817**	**3.4247**	**0.6432**	**4.0679**		**2,571.1145**	**2,571.1145**	**0.8316**		**2,591.9033**

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	0.0438	0.0210	0.3533	9.0000e-004	0.0989	5.1000e-004	0.0994	0.0262	4.7000e-004	0.0267		91.3752	91.3752	2.5400e-003	2.2700e-003	92.1157
Total	**0.0438**	**0.0210**	**0.3533**	**9.0000e-004**	**0.0989**	**5.1000e-004**	**0.0994**	**0.0262**	**4.7000e-004**	**0.0267**		**91.3752**	**91.3752**	**2.5400e-003**	**2.2700e-003**	**92.1157**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

3.3 Grading - 2023

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					2.7622	0.0000	2.7622	1.3357	0.0000	1.3357			0.0000			0.0000
Off-Road	1.5595	16.4002	12.5194	0.0266		0.6991	0.6991		0.6432	0.6432	0.0000	2,571.1145	2,571.1145	0.8316		2,591.9033
Total	**1.5595**	**16.4002**	**12.5194**	**0.0266**	**2.7622**	**0.6991**	**3.4613**	**1.3357**	**0.6432**	**1.9788**	**0.0000**	**2,571.1145**	**2,571.1145**	**0.8316**		**2,591.9033**

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	0.0438	0.0210	0.3533	9.0000e-004	0.0989	5.1000e-004	0.0994	0.0262	4.7000e-004	0.0267		91.3752	91.3752	2.5400e-003	2.2700e-003	92.1157
Total	**0.0438**	**0.0210**	**0.3533**	**9.0000e-004**	**0.0989**	**5.1000e-004**	**0.0994**	**0.0262**	**4.7000e-004**	**0.0267**		**91.3752**	**91.3752**	**2.5400e-003**	**2.2700e-003**	**92.1157**

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

3.4 Building Construction - 2023

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	1.2352	11.1218	12.0020	0.0212		0.5148	0.5148		0.4883	0.4883		1,995.2688	1,995.2688	0.4268		2,005.9376
Total	**1.2352**	**11.1218**	**12.0020**	**0.0212**		**0.5148**	**0.5148**		**0.4883**	**0.4883**		**1,995.2688**	**1,995.2688**	**0.4268**		**2,005.9376**

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	0.0415	1.4354	0.4469	5.9100e-003	0.1868	8.0100e-003	0.1948	0.0538	7.6700e-003	0.0614		633.5911	633.5911	0.0157	0.0929	661.6594
Worker	0.2694	0.1294	2.1744	5.5600e-003	0.6086	3.1300e-003	0.6117	0.1614	2.8800e-003	0.1643		562.3087	562.3087	0.0156	0.0140	566.8661
Total	**0.3109**	**1.5649**	**2.6212**	**0.0115**	**0.7953**	**0.0111**	**0.8065**	**0.2152**	**0.0106**	**0.2257**		**1,195.8998**	**1,195.8998**	**0.0313**	**0.1069**	**1,228.5255**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

3.4 Building Construction - 2023

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	0.9808	9.7013	10.3241	0.0186		0.4597	0.4597		0.4332	0.4332	0.0000	1,787.7911	1,787.7911	0.4041		1,797.8939
Total	**0.9808**	**9.7013**	**10.3241**	**0.0186**		**0.4597**	**0.4597**		**0.4332**	**0.4332**	**0.0000**	**1,787.7911**	**1,787.7911**	**0.4041**		**1,797.8939**

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	0.0415	1.4354	0.4469	5.9100e-003	0.1868	8.0100e-003	0.1948	0.0538	7.6700e-003	0.0614		633.5911	633.5911	0.0157	0.0929	661.6594
Worker	0.2694	0.1294	2.1744	5.5600e-003	0.6086	3.1300e-003	0.6117	0.1614	2.8800e-003	0.1643		562.3087	562.3087	0.0156	0.0140	566.8661
Total	**0.3109**	**1.5649**	**2.6212**	**0.0115**	**0.7953**	**0.0111**	**0.8065**	**0.2152**	**0.0106**	**0.2257**		**1,195.8998**	**1,195.8998**	**0.0313**	**0.1069**	**1,228.5255**

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

3.4 Building Construction - 2024

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	1.1572	10.4095	11.9321	0.0212		0.4531	0.4531		0.4295	0.4295		1,995.5913	1,995.5913	0.4232		2,006.1714
Total	**1.1572**	**10.4095**	**11.9321**	**0.0212**		**0.4531**	**0.4531**		**0.4295**	**0.4295**		**1,995.5913**	**1,995.5913**	**0.4232**		**2,006.1714**

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	0.0397	1.4069	0.4328	5.7900e-003	0.1868	7.9000e-003	0.1946	0.0538	7.5500e-003	0.0613		621.5244	621.5244	0.0152	0.0913	649.1179
Worker	0.2515	0.1153	2.0150	5.3800e-003	0.6086	2.9700e-003	0.6115	0.1614	2.7400e-003	0.1642		543.8025	543.8025	0.0141	0.0130	548.0315
Total	**0.2912**	**1.5222**	**2.4479**	**0.0112**	**0.7953**	**0.0109**	**0.8062**	**0.2152**	**0.0103**	**0.2255**		**1,165.3269**	**1,165.3269**	**0.0293**	**0.1043**	**1,197.1493**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

3.4 Building Construction - 2024

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	0.9214	9.0288	10.2684	0.0186		0.4056	0.4056		0.3821	0.3821	0.0000	1,788.1136	1,788.1136	0.4020		1,798.1643
Total	**0.9214**	**9.0288**	**10.2684**	**0.0186**		**0.4056**	**0.4056**		**0.3821**	**0.3821**	**0.0000**	**1,788.1136**	**1,788.1136**	**0.4020**		**1,798.1643**

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	0.0397	1.4069	0.4328	5.7900e-003	0.1868	7.9000e-003	0.1946	0.0538	7.5500e-003	0.0613		621.5244	621.5244	0.0152	0.0913	649.1179
Worker	0.2515	0.1153	2.0150	5.3800e-003	0.6086	2.9700e-003	0.6115	0.1614	2.7400e-003	0.1642		543.8025	543.8025	0.0141	0.0130	548.0315
Total	**0.2912**	**1.5222**	**2.4479**	**0.0112**	**0.7953**	**0.0109**	**0.8062**	**0.2152**	**0.0103**	**0.2255**		**1,165.3269**	**1,165.3269**	**0.0293**	**0.1043**	**1,197.1493**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

3.5 Paving - 2024

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	0.6045	5.7316	8.6748	0.0134		0.2732	0.2732		0.2522	0.2522		1,281.2747	1,281.2747	0.4061		1,291.4265
Paving	0.7860					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3905**	**5.7316**	**8.6748**	**0.0134**		**0.2732**	**0.2732**		**0.2522**	**0.2522**		**1,281.2747**	**1,281.2747**	**0.4061**		**1,291.4265**

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	0.0409	0.0187	0.3274	8.7000e-004	0.0989	4.8000e-004	0.0994	0.0262	4.4000e-004	0.0267		88.3679	88.3679	2.2900e-003	2.1100e-003	89.0551
Total	**0.0409**	**0.0187**	**0.3274**	**8.7000e-004**	**0.0989**	**4.8000e-004**	**0.0994**	**0.0262**	**4.4000e-004**	**0.0267**		**88.3679**	**88.3679**	**2.2900e-003**	**2.1100e-003**	**89.0551**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

3.5 Paving - 2024

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	0.6045	5.7316	8.6748	0.0134		0.2732	0.2732		0.2522	0.2522	0.0000	1,281.2747	1,281.2747	0.4061		1,291.4265
Paving	0.7860					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3905**	**5.7316**	**8.6748**	**0.0134**		**0.2732**	**0.2732**		**0.2522**	**0.2522**	**0.0000**	**1,281.2747**	**1,281.2747**	**0.4061**		**1,291.4265**

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	0.0409	0.0187	0.3274	8.7000e-004	0.0989	4.8000e-004	0.0994	0.0262	4.4000e-004	0.0267		88.3679	88.3679	2.2900e-003	2.1100e-003	89.0551
Total	**0.0409**	**0.0187**	**0.3274**	**8.7000e-004**	**0.0989**	**4.8000e-004**	**0.0994**	**0.0262**	**4.4000e-004**	**0.0267**		**88.3679**	**88.3679**	**2.2900e-003**	**2.1100e-003**	**89.0551**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

3.6 Architectural Coating - 2024

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	13.3643					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**13.5450**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	0.0503	0.0231	0.4030	1.0800e-003	0.1217	5.9000e-004	0.1223	0.0323	5.5000e-004	0.0328		108.7605	108.7605	2.8200e-003	2.6000e-003	109.6063
Total	**0.0503**	**0.0231**	**0.4030**	**1.0800e-003**	**0.1217**	**5.9000e-004**	**0.1223**	**0.0323**	**5.5000e-004**	**0.0328**		**108.7605**	**108.7605**	**2.8200e-003**	**2.6000e-003**	**109.6063**

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

3.6 Architectural Coating - 2024

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	13.3643					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**13.5450**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	0.0503	0.0231	0.4030	1.0800e-003	0.1217	5.9000e-004	0.1223	0.0323	5.5000e-004	0.0328		108.7605	108.7605	2.8200e-003	2.6000e-003	109.6063
Total	**0.0503**	**0.0231**	**0.4030**	**1.0800e-003**	**0.1217**	**5.9000e-004**	**0.1223**	**0.0323**	**5.5000e-004**	**0.0328**		**108.7605**	**108.7605**	**2.8200e-003**	**2.6000e-003**	**109.6063**

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	0.3523	0.3544	2.9331	6.1200e-003	0.6080	4.5100e-003	0.6125	0.1621	4.2200e-003	0.1663		623.7311	623.7311	0.0377	0.0277	632.9214
Unmitigated	0.3523	0.3544	2.9331	6.1200e-003	0.6080	4.5100e-003	0.6125	0.1621	4.2200e-003	0.1663		623.7311	623.7311	0.0377	0.0277	632.9214

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	103.42	41.49	104.25	261,885	261,885
Parking Lot	0.00	0.00	0.00		
Total	103.42	41.49	104.25	261,885	261,885

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
General Light Industry	10.00	5.00	6.50	59.00	28.00	13.00	92	5	3
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351
Parking Lot	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable 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	0.0219	0.1992	0.1673	1.2000e-003		0.0151	0.0151		0.0151	0.0151		239.0442	239.0442	4.5800e-003	4.3800e-003	240.4647
NaturalGas Unmitigated	0.0219	0.1992	0.1673	1.2000e-003		0.0151	0.0151		0.0151	0.0151		239.0442	239.0442	4.5800e-003	4.3800e-003	240.4647

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

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					
General Light Industry	2031.88	0.0219	0.1992	0.1673	1.2000e-003		0.0151	0.0151		0.0151	0.0151		239.0442	239.0442	4.5800e-003	4.3800e-003	240.4647
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		**0.0219**	**0.1992**	**0.1673**	**1.2000e-003**		**0.0151**	**0.0151**		**0.0151**	**0.0151**		**239.0442**	**239.0442**	**4.5800e-003**	**4.3800e-003**	**240.4647**

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					
General Light Industry	2.03188	0.0219	0.1992	0.1673	1.2000e-003		0.0151	0.0151		0.0151	0.0151		239.0442	239.0442	4.5800e-003	4.3800e-003	240.4647
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		**0.0219**	**0.1992**	**0.1673**	**1.2000e-003**		**0.0151**	**0.0151**		**0.0151**	**0.0151**		**239.0442**	**239.0442**	**4.5800e-003**	**4.3800e-003**	**240.4647**

6.0 Area Detail

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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

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	0.5412	1.8000e-004	0.0195	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0418	0.0418	1.1000e-004		0.0445
Unmitigated	0.5412	1.8000e-004	0.0195	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0418	0.0418	1.1000e-004		0.0445

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	0.0330					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5064					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.8000e-003	1.8000e-004	0.0195	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0418	0.0418	1.1000e-004		0.0445
Total	**0.5412**	**1.8000e-004**	**0.0195**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**0.0418**	**0.0418**	**1.1000e-004**		**0.0445**

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	0.0330					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5064					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.8000e-003	1.8000e-004	0.0195	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0418	0.0418	1.1000e-004		0.0445
Total	**0.5412**	**1.8000e-004**	**0.0195**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**0.0418**	**0.0418**	**1.1000e-004**		**0.0445**

7.0 Water Detail

7.1 Mitigation Measures Water

Elite Truck Repair Project - Sacramento Metropolitan AQMD Air District, Summer

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 B. Health Risk Assessment

HEALTH RISK ASSESSMENT

FOR

ELITE TRUCK REPAIR PROJECT

2041 RENE AVENUE

SACRAMENTO, CA

NOVEMBER 2022

PREPARED FOR:
AREA WEST ENVIRONMENTAL
6248 MAIN AVE SUITE #C,
ORANGEVALE, CA 95662

PREPARED BY:

AMBIENT
AIR QUALITY & NOISE CONSULTING

75 HIGUERA STREET, SUITE 105
SAN LUIS OBISPO, CA 93401

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

INTRODUCTION

This report was prepared for the purpose of documenting potential on-site health risks associated with the proposed Elite Truck Repair Project, located at 2041 Rene Avenue, APN: 238-0150-002. The project includes the development of a heavy-duty truck repair facility located adjacent to and north of Rene Avenue. This report was prepared for informational purposes based on guidance from the Office of Environmental Health Hazard Assessment (OEHHA) and the Sacramento Metropolitan Air Quality Management District (SMAQMD).

PROPOSED PROJECT SUMMARY

The owners of the parcel, Elite Truck Repair LLC, propose to construct a new truck service facility to provide minor truck service, truck parking, warehouse space, and administrative office space. The project is being designed to provide service to electric powered trucks. The proposed truck service building is approximately 20,850 square feet and includes: a pre-engineered metal building combined with an office standard metal frame; five service bays for minor repairs and service; a warehouse; truck driver and mechanic locker rooms, visiting trucker lounge and laundry; parts storage, storage area; administrative offices; and a dispatch office. The site would provide truck maintenance service, oil changes, brake service, alignments, and tire changes. Photovoltaic solar panels will be mounted on a "cool" roof. No emergency generators would be required for the facility. Maps depicting the project vicinity and project location are presented in Figure 1 and Figure 2, respectively. The proposed project site is depicted in Figure 3 and the proposed site plan is depicted in Figure 4.

The business would be operational 5 days a week, Monday through Friday from 6:00 a.m. to 5:00 p.m., and would employ the use of a forklift and an air compressor.

Existing Setting

The project is located in Sacramento, California within the Sacramento Valley Air Basin (SVAB) and is subject to the jurisdiction of the SMAQMD. Air quality in the SVAB is influenced by a variety of factors, including topography, and local and regional meteorology.

Topography and Meteorology

Sacramento County is located within the boundaries of the SVAB. The SVAB is bounded by the North Coast Ranges on the west and the Northern Sierra Nevada Mountains on the east. The intervening terrain is flat. Sacramento is often described as a bowl shaped valley.

The Sacramento Valley has a Mediterranean climate, characterized by hot dry summers and mild rainy winters. During the year the temperature may range from 20 to 115 degrees Fahrenheit with summer highs usually in the 90s and winter lows occasionally below freezing. Average annual rainfall is about 20 inches with snowfall being very rare. The prevailing winds are moderate in strength and vary from moist breezes from the south to dry land flows from the north.

The mountains surrounding the Sacramento Valley create a barrier to airflow, which can trap air pollutants in the valley when meteorological conditions are right and a temperature inversion exists. Air stagnation in the autumn and early winter occurs when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows pollutants to become concentrated in the air. The surface concentrations of pollutants are highest when these conditions are combined with increased levels of smoke or when temperature inversions trap cool air, fog, and pollutants near the ground.

The ozone season (May through October) in the Sacramento Valley is characterized by stagnant morning air or light winds with the Delta sea breeze arriving in the afternoon out of the southwest. Usually, the evening breeze transports the airborne pollutants to the north out of the Sacramento Valley. During about half of the days from July to September, however, a phenomenon called the "Schultz Eddy" prevents this from occurring. Instead of allowing for the prevailing wind patterns to move north carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern and pollutants to circle back southward. This phenomenon's effect exacerbates the pollution levels in the area and increases the likelihood of violating the federal and state air quality standards (SMAQMD 2020)

Figure 1 . Project Vicinity

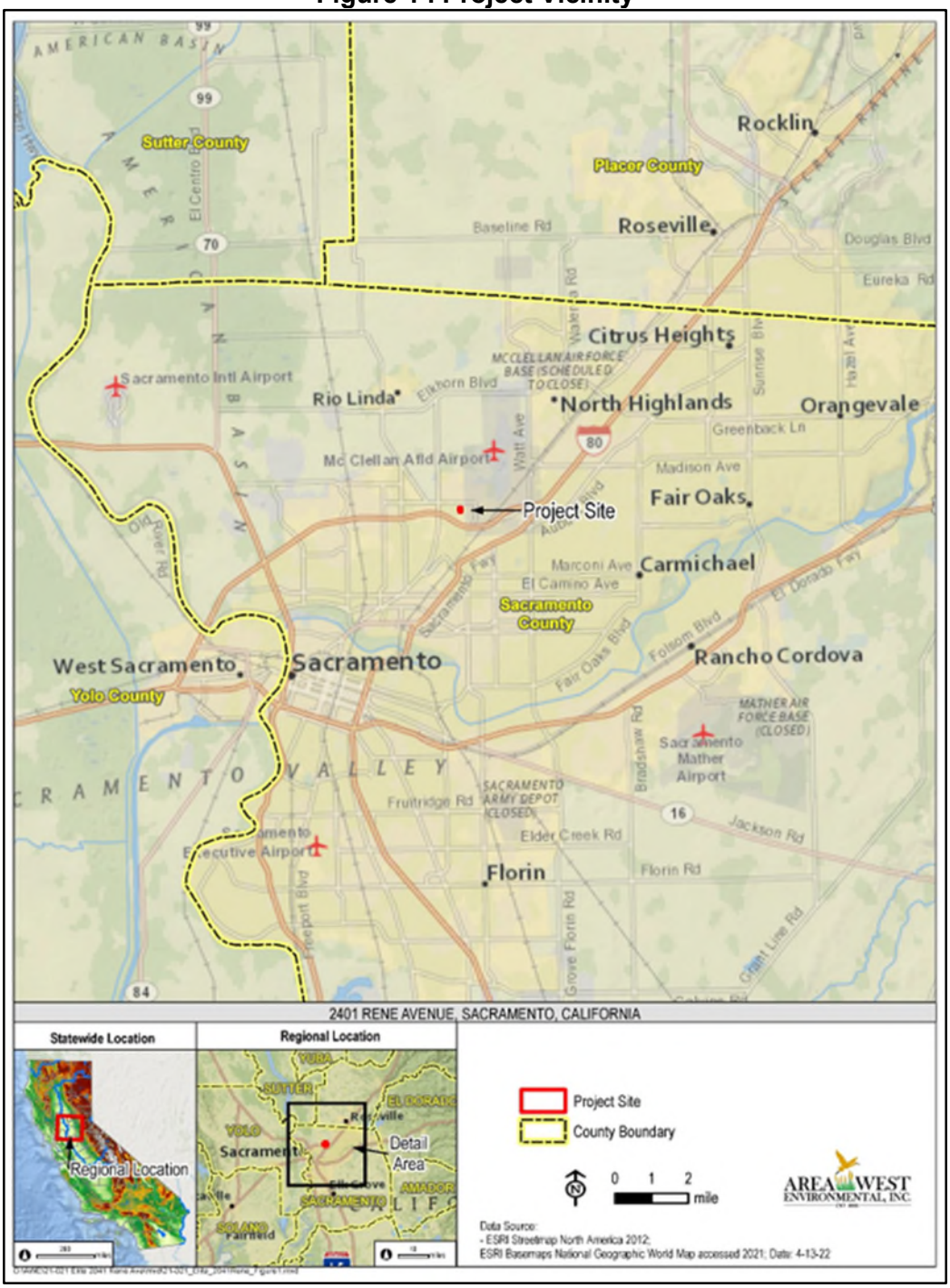


Figure 2. Project Location

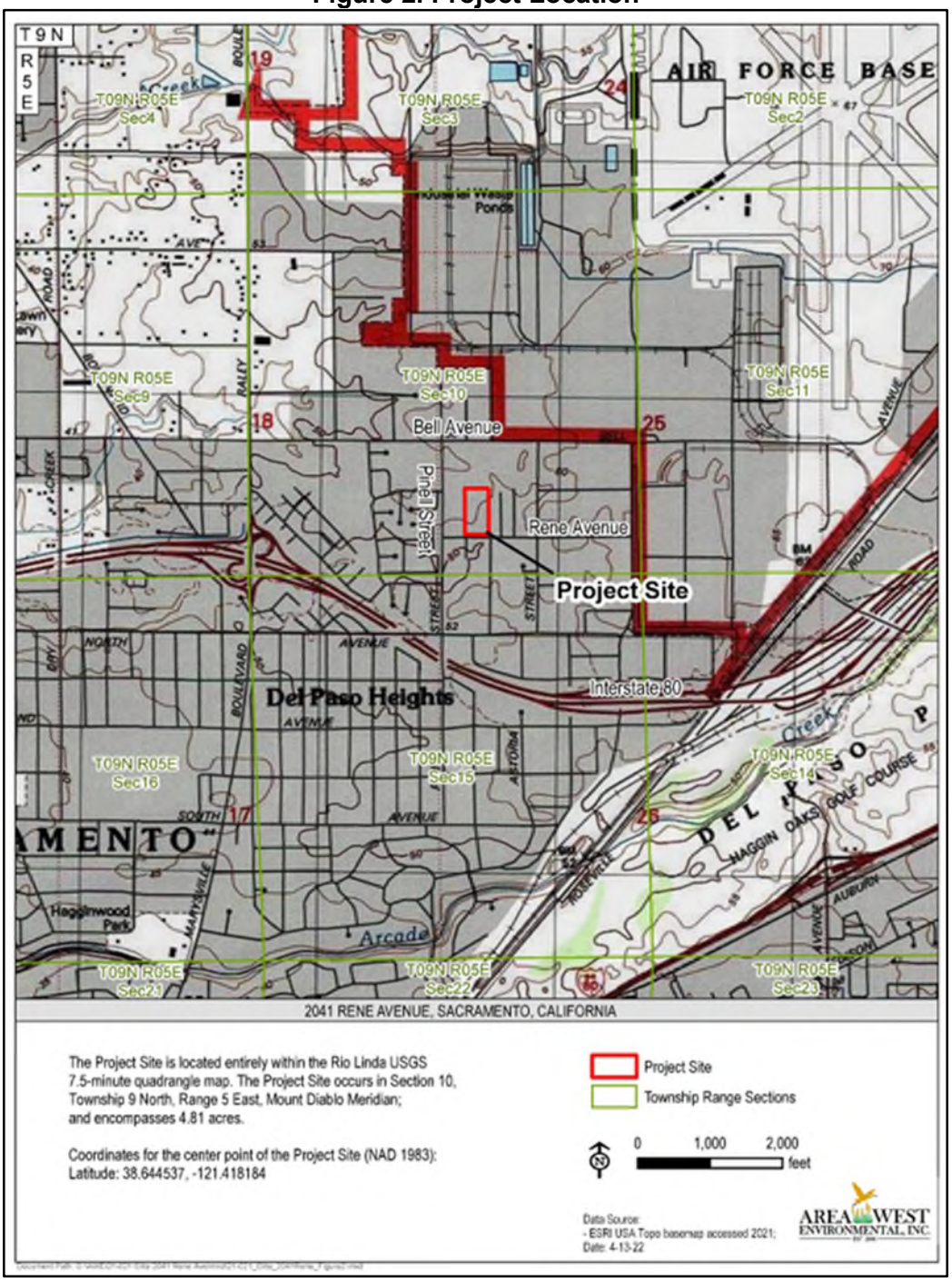
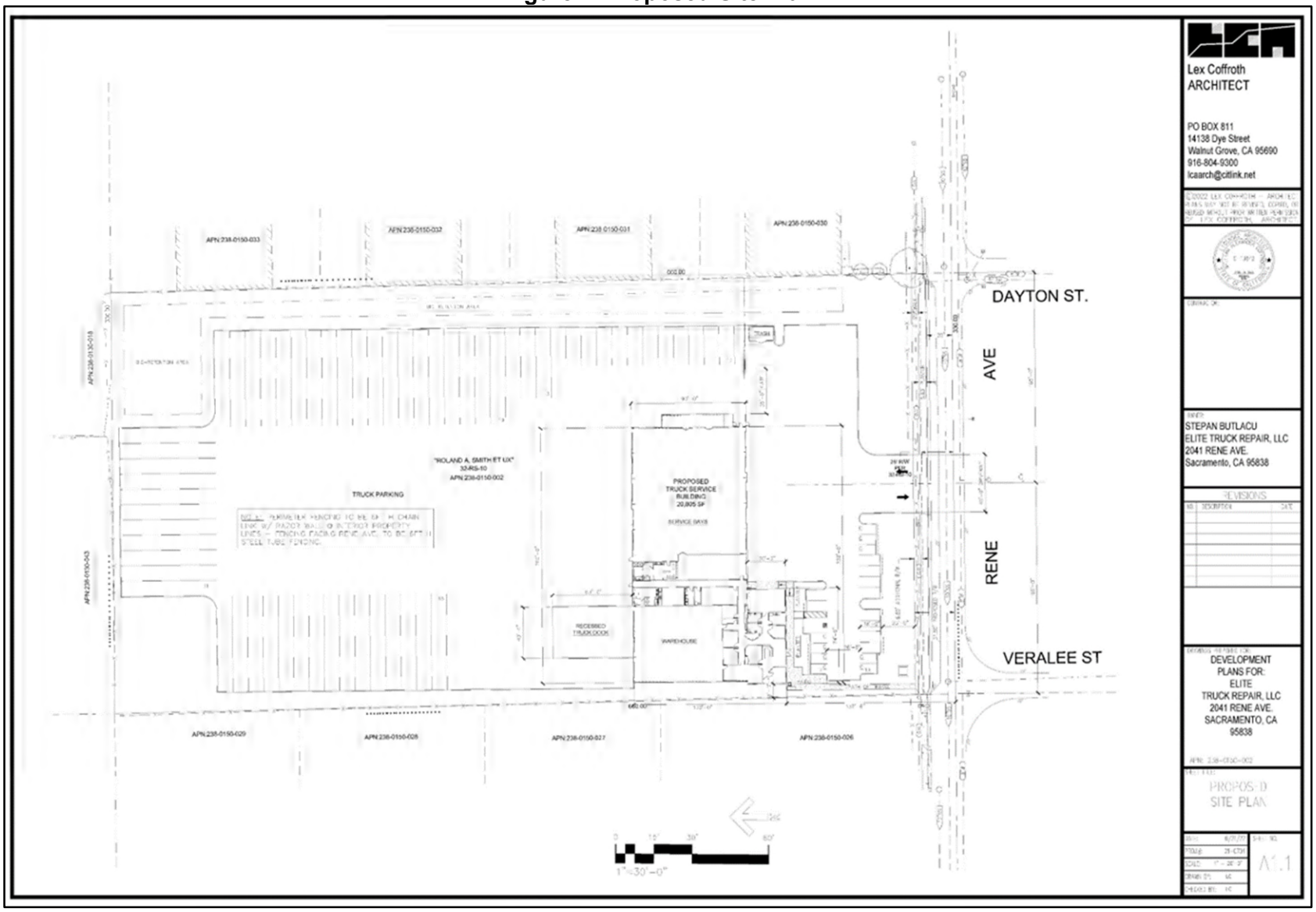


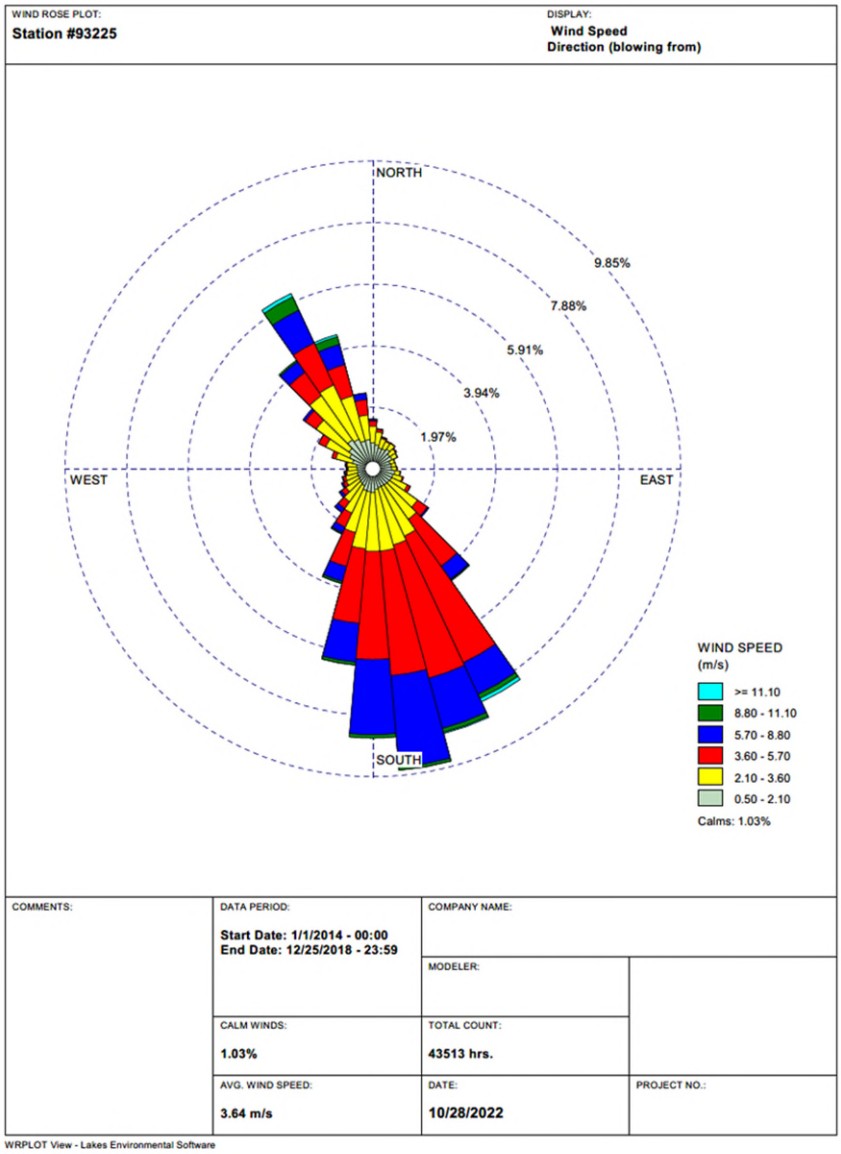
Figure 3. Proposed Project Site

Figure 4. Proposed Site Plan



Predominant wind flow in the project area based on historical meteorological data from the Sacramento International Airport is depicted in Figure 5. As depicted, wind flow in the project area is predominantly from the south, averaging approximately 3.6 meters/second (approximately 8.1 mph). Calm winds are present an average of approximately one percent of the time.

Figure 5. Sacramento International Airport Wind Rose Plot



Human Health & Welfare Effects

The air pollutants and associated adverse health and welfare effects are summarized in Table 1. For this report, the air pollutants of primary concern with regard to human health include diesel-exhaust particulate matter (PM). As depicted in Table 1, exposure to increased pollutant concentrations of PM can result in various heart and lung ailments and death. DPM is considered a toxic air contaminant (TAC), which can result in increased cancer risk, and increased risk of reproductive, developmental, and neurological effects.

Table 1. Air Pollutant Adverse Effects

Pollutant	Human Health & Welfare Effects
Particulate Matter (PM_{10} & $PM_{2.5}$)	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Toxic Air Contaminants (TACs)	Increased cancer risk, reproductive, developmental, and neurological effects.

Source: ARB 2022

Toxic Air Contaminants

TACs are air pollutants that may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air, but due to their high toxicity, they may pose a threat to public health even at very low concentrations. Because there is no threshold level below which adverse health impacts are not expected to occur, TACs differ from criteria pollutants for which acceptable levels of exposure can be determined and for which state and federal governments have set ambient air quality standards. TACs, therefore, are not considered "criteria pollutants" under either the Federal Clean Air Act (FCAA) or the California Clean Air Act (CCAA) and are thus not subject to National or State AAQS. TACs are not considered criteria pollutants in that the federal and California Clean Air Acts do not address them specifically through the setting of National or State AAQS. Instead, the U.S. EPA and California Air Resources Board (ARB) regulate Hazardous Air Pollutants (HAPs) and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology to limit emissions. In conjunction with District rules, these federal and state statutes and regulations establish the regulatory framework for TACs. At the national level, the U.S. EPA has established National Emission Standards for HAPs (NESHAPs), in accordance with the requirements of the FCAA and subsequent amendments. These are technology-based source-specific regulations that limit allowable emissions of HAPs.

Within California, TACs are regulated primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for ARB to designate substances as TACs. This includes research, public participation, and scientific peer review before ARB designates a substance as a TAC. Existing sources of TACs that are subject to the Air Toxics Hot Spots Information and Assessment Act are required to: (1) prepare a toxic emissions inventory; (2) prepare a risk assessment if emissions are significant; (3) notify the public of significant risk levels; and (4) prepare and implement risk reduction measures.

At the state level, the ARB has the authority to regulate emissions from motor vehicles, fuels, and consumer products. Most recently, Diesel-exhaust particulate matter (DPM) was added to the ARB list of TACs. DPM is the primary TACs of concern for mobile sources. Of all controlled TACs, emissions of DPM are estimated to be responsible for about 70 percent of the total ambient TAC risk. The ARB has made the reduction of the public's exposure to DPM one of its highest priorities, with an aggressive plan to require cleaner diesel fuel and cleaner diesel engines and vehicles (ARB 2005).

At the local level, air districts have authority over stationary or industrial sources. All projects that require air quality permits from the SMAQMD are evaluated for TAC emissions. The SMAQMD limits emissions and public exposure to TACs through a number of programs. The SMAQMD prioritizes TAC-emitting stationary sources, based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors. The SMAQMD requires a comprehensive health risk assessment for facilities that are classified in the significant-risk category, pursuant to AB 2588. No major existing sources of TACs have been identified in the project area. In addition, implementation of the proposed project would not result in the installation of any major stationary sources of TACs anticipated to be subject to SMAQMD permitting requirements.

IMPACT ANALYSIS

Threshold of Significance

In April 2021 the SMAQMD released the *Guide to Air Quality Assessment in Sacramento County* (CEQA Guide) which presents guidance for evaluating and mitigating potential air quality impacts for new developments within the District. The CEQA Guide includes recommended thresholds of significance for HRAs involving high-volume TAC-generating activity in a small area. A project that results in a cancer risk greater than 10.0 in a million at any off-site receptor would exceed the District's threshold.

Methodology

Emissions associated with local roadways near the proposed project were calculated using emission rates derived from the ARB's Emission Factor 2021 (EMFAC2021) v1.0.2 web platform. Emission rates were included in the Lakes Air Dispersion Modeling (AERMOD) v11.0.1 computer program to model pollutant concentrations in the proposed project area. Lakes Environmental provides a graphical user interface (GUI) to the U.S. EPA AERMOD version 21112. Meteorological data used for this analysis was provided by SMAQMD and includes meteorological data for the most recent five years of available data (i.e., 2014 - 2018). Health risk calculations were conducted using the Hot Spot Analysis and Reporting Program Version 2 (HARP2). AERMOD output files are presented in Appendix B and HARP2 output files are presented in Appendix C of this report.

Traffic Volumes and Emission Rate.

Traffic volumes used in the modeling were provided by the project proponent. The proposed project is predicted to include 208 truck trips per day. To be conservative, emission rates for truck DPM sources were calculated based on EMFAC2021 rates for the highest heavy heavy-duty truck (HHDT) classification (T7 Public Class 8) for operational year 2023 conditions. Trucks travel speeds were based on existing roadway speed limits and assumed: 40 miles per hour (mph) on Bell Avenue, 35 mph on Winter Street, 25 mph on Rene Avenue, 15 mph on Pinell Street (school zone), and 5 mph on the project site. On-site idling of trucks was included and assumed an idle time of 5 minutes per truck in accordance with ARB regulatory requirements. DPM emission rates relative to travel speed associated with modeled roadway segments and associated emission rates are summarized in Table 2. Additional information relating to emission rates is presented in Appendix A of this report.

Table 2. EMFAC2021 DPM Emission Rates Relative to Travel Speed

Roadway Segment	Speed (mph)	Emission Rate
On-Site HHDT Idle	0	8.64E-02 grams/day
On-Site HHDT Travel	5	1.33E-01 gram/mile
Pinell Street, Bell Avenue to Rene Avenue	15	8.07E-02 gram/mile
Rene Avenue, Pinell Street to Project Entrance/Exit	25	4.90E-02 gram/mile
Winter Street, I-80 to Bell Avenue	35	3.96E-02 gram/mile
Bell Avenue, Winter Street to Pinell Street	40	3.73E-02 gram/mile

Dispersion Modeling

Truck travel routes were modeled using line volume sources (a series of adjacent volume sources) in AERMOD. For each roadway, one line volume source was included for each travel direction on the roadway (i.e., east and west travel or north and south travel). The line volume source was placed in the center of the travel lane. Each directional roadway's line volume source was given an emission rate in grams/second based on the roadway of travel. On-site truck idle times were limited to 5-minutes per truck as required by ARB's *Airborne Toxic Control Measure to Limit Diesel-Fueled Motor Vehicle Idling*. AERMOD line volume sources, the corresponding roadway, and emission rates are summarized in Table 3. Modeling was conducted based on the proposed project's hours of operation (6:00 a.m. to 5:00 p.m.).

Plume release heights for truck volume sources are based on average vehicle heights from the 2021 *U.S. EPA PM Hot-Spot Guidance*. For trucks, an average height of 4 meters produces a plume height of approximately 6.8 meters (U.S. EPA 2021). 25-meter by 25-meter receptor grids, with the default receptor height, were

placed around the proposed project site to represent potential sensitive receptors, including Bell Avenue Elementary/Robla Pre-School, nearby residential dwellings, and the workers within the adjacent commercial/industrial land uses. The receptor values represent the predicated pollutant concentrations in the unit of micro-grams per meter cubed (µg/m^3). Receptor concentrations were modeled for DPM in 1-hour and period intervals. The worst-case receptors representing the school, residential dwellings, and off-site workers were selected for risk calculation purposes. These receptor locations and predicted DPM concentrations are summarized in Table 4.

Table 3. AERMOD Line Volume Source Emission Rates

Source	Travel Distance (miles)	Emission Rate (gram/mile)	Truck Rate (trucks/hour)	Emission Rate (gram/mile/hour)	Emission Rate (gram/second)
SLINE1 (On-Site Entrance)	1.94E-01	1.33E-01	10	1.33E+00	7.13E-05
SLINE2 (On-Site Exit)	2.62E-02	1.33E-01	10	1.33E+00	9.64E-06
SLINE5 (NB Winter Street)	6.53E-01	3.96E-02	10	3.96E-01	7.18E-05
SLINE6 (SB Winter Street)	6.30E-01	3.96E-02	10	3.96E-01	6.93E-05
SLINE7 (WB Bell Avenue)	5.07E-01	3.73E-02	10	3.73E-01	5.25E-05
SLINE8 (EB Bell Avenue)	4.95E-01	3.73E-02	10	3.73E-01	5.12E-05
SLINE9 (NB Pinell Street)	2.43E-01	8.07E-02	10	8.07E-01	5.45E-05
SLINE10 (SB Pinell Street)	2.53E-01	8.07E-02	10	8.07E-01	5.67E-05
SLINE11 (WB Rene Avenue)	9.00E-02	4.90E-02	10	4.90E-01	1.22E-05
SLINE12 (EB Rene Avenue)	9.71E-02	4.90E-02	10	4.90E-01	1.32E-05
Source	**Travel Distance (miles)**	**Emission Rate (gram/day/truck)**	**Emission Rate (gram/second/5-minute idle)**		
SLINE3 (Idle, Parking Lot)	NA	8.64E-02	8.33E-07		
SLINE4 (Idle, Entrance)	NA	8.64E-02	8.33E-07		

Table 4. Predicted Receptor DPM Concentrations

Receptor Name	DPM Concentration (µg/m^3)	Land Use
Hourly		
Schl45	1.58E-01	School
S_Res18	2.32E-01	Residential
W_Ind1	1.58E-01	Commercial/Industrial (Off-Site Worker)
Period		
Schl45	3.40E-03	School
S_Res18	4.13E-03	Residential
W_Ind1	4.79E-03	Commercial/Industrial (Off-Site Worker)

Exposure Assessment

The DPM concentration at receptors: Schl43, S_Res18, and W_Ind1 were used to evaluate the potential for cancer risk. In addition to DPM concentration, recommended (OEHHA 2015) exposure variants were also included in the risk assessment. Some of the exposure variants include breathing rates, exposure frequency, exposure duration, and the fraction of time at home.

Residential Exposure

Residential risk assessment for the proposed project follows the policy presented in the *Risk Management Guidance Document* (ARB/CAPCOA 2015). This policy recommends a 95th percentile breathing rate for age groups below 2 years, and an 80th percentile breathing rate for age groups above 2 years. To be conservative, the proposed project was assessed using the 95th percentile breathing rates for all age groups. The age groups and corresponding breathing rates are summarized in Table 5.

The residential receptor was assumed to have an exposure frequency of 350 days per year over a 30-year exposure duration. The fraction of time at home and the age sensitivity factor for each age group are based on OEHHA guidelines and are presented in Table 6. (OEHHA 2015)

Table 5. Residential Breathing Rates

3rd Trimester[1]	0 < 2 Years	2 < 16 Years	16 < 30 Years
95th Percentile (L/kg/day)			
361	1090	745	335

1. Based on breathing rates of the pregnant woman using the assumption that the dose to the fetus during the 3rd trimester is the same as the mother
Source: OEHHA 2015

Table 6. Age Sensitivity and Fraction of Time at Home

Age Group	Age Sensitivity Factors	Fraction of Time at Home
3rd Trimester	10	0.85
0 < 2 Years	10	0.85
2 < 16 Years	3	0.72
16 < 30 Years	1	0.73

Source: OEHHA 2015

Off-Site Worker Exposure

For the off-site worker receptor, the 95th percentile 8-hour breathing rate of 230 L/kg/8-hours was selected. This rate represents moderate activity for the 16 to 70 age range. The calculation of health risk for the off-site worker receptor was based on an exposure frequency of 250 days per year over a 25-year exposure duration (OEHHA 2015).

School Children Exposure

For the school (children) receptor, the 95th percentile 8-hour breathing rate of 520 L/kg/8-hours was selected. This rate represents moderate activity for the 2 to 16 age range. To be conservative, the calculation of health risk was based on an exposure frequency of 180 days per year over a 9-year exposure duration (OEHHA 2015).

Cancer Risk

Cancer risks for the proposed project were calculated using the (HARP2) computer program. HARP2 includes a Health Risk Assessment Standalone Tool (RAST). HARP2 output files are included in Appendix C of this report.

POTENTIAL HEALTH RISKS

The predicted cancer risks at the worst-case school, residential, and worker receptors are summarized in Table 7. As noted in Table 7, the cancer risk for DPM would be less than 1 in a million for children at the nearby Bell Avenue Elementary/Robla Pre-School, approximately 3 in a million for residences, and less than 1 in a million for workers. Predicted chronic and acute risks would be less than one. The cancer risk at these receptors is not predicted to exceed the District's risk threshold of 10 in a million.

It is important to note that the project has been designed to service electric trucks. This report assumes a worst-case scenario in which all truck traffic associated with the proposed facility is diesel-powered. With the inclusion of electric trucks, DPM emissions associated with the proposed facility would be lower.

Table 7. Health Risk Summary

Receptor	Land Use	Cancer Risk (in a million)	Exceeds Recommended Threshold (10 in a million)?
Schl45	School	0.72	No
S_Res18	Residential	2.89	No
W_Ind1	Commercial/Industrial	0.30	No

REFERENCES

California Air Resources Board (ARB). April 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*.

California Air Resources Board (ARB). Accessed May 23, 2022. *Common Air Pollutants*. Website URL: https://ww2.arb.ca.gov/resources/common-air-pollutants

California Air Resources Board/California Air Pollution Control Officers Association (ARB/CAPCOA). July 23, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. Website URL: https://ww2.arb.ca.gov/sites/default/files/classic/toxics/rma/rmgssat.pdf

Office of Environmental Health Hazard Assessment (OEHHA). February 2015. *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments.* Available at website URL: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

Sacramento Metropolitan Air Quality Management District (SMAQMD). April 2020. *Guide to Air Quality Assessment in Sacramento County*. Available at website URL: https://www.airquality.org/residents/ceqa-land-use-planning/ceqa-guidance-tools.

United States Environmental Protection Agency (U.S. EPA). October 2021. *PM Hot-spot Guidance*. Website URL: https://www.epa.gov/state-and-local-transportation/project-level-conformity-and-hot-spot-analyses#pmguidance

Appendix A

Traffic Data and Emission Factors

Source: EMFAC2021 (v1.0.2) Emission Rates
Region Type: Sub-Area
Region: Sacramento (SV)
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC202x Categories
Units: miles/day for CVMT and EVMT, g/mile for RUNEX, PMBW and PMTW, mph for Speed, kWh/mile for Energy Consumption, gallon/mile for Fuel Consumption. PHEV calculated based on total VMT.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Total VMT	CVMT	EVMT	PM10_RUNEX
Sacramento (SV)	2023	T7 Public Class 8	Aggregate	40	Diesel	20461.1464	20461.15	0	0.037280717
Sacramento (SV)	2023	T7 Public Class 8	Aggregate	35	Diesel	19584.36317	19584.36	0	0.039576773
Sacramento (SV)	2023	T7 Public Class 8	Aggregate	25	Diesel	10271.34029	10271.34	0	0.048969275
Sacramento (SV)	2023	T7 Public Class 8	Aggregate	15	Diesel	8273.753879	8273.754	0	0.080747445
Sacramento (SV)	2023	T7 Public Class 8	Aggregate	5	Diesel	6138.614559	6138.615	0	0.13266005

Source: EMFAC2021 (v1.0.2) Emission Rates
Region Type: Sub-Area
Region: Sacramento (SV)
Calendar Year: 2023
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. PHEV calculated based on total VMT.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	PM10_IDLEX
Sacramento (SV)	2023	T7 Public Class 8	Aggregate	Aggregate	Diesel	4131.712528	176901.6009	176901.6	0	21195.69	0.086403249

Volume Source	Distance (meter)	Distance (mile)	Rate (g/veh*mile)	Veh/hr	g/mile*hr	g/hr	g/sec	lbs/hr
SLINE1 (Enter)	311.6	1.94E-01	1.33E-01	10	1.33E+00	2.57E-01	7.13E-05	5.66E-04
SLINE2 (Exit)	42.1	2.62E-02	1.33E-01	10	1.33E+00	3.47E-02	9.64E-06	7.65E-05
SLINE5 (NB Winter St)	1051.1	6.53E-01	3.96E-02	10	3.96E-01	2.58E-01	7.18E-05	5.70E-04
SLINE6 (SB Winter St)	1014	6.30E-01	3.96E-02	10	3.96E-01	2.49E-01	6.93E-05	5.50E-04
SLINE7 (WB Bell Ave)	815.9	5.07E-01	3.73E-02	10	3.73E-01	1.89E-01	5.25E-05	4.17E-04
SLINE8 (EB Bell Ave)	796	4.95E-01	3.73E-02	10	3.73E-01	1.84E-01	5.12E-05	4.07E-04
SLINE9 (NB Pinell St)	391.3	2.43E-01	8.07E-02	10	8.07E-01	1.96E-01	5.45E-05	4.33E-04
SLINE10 (SB Pinell St)	406.8	2.53E-01	8.07E-02	10	8.07E-01	2.04E-01	5.67E-05	4.50E-04
SLINE11 (WB Rene Ave)	144.9	9.00E-02	4.90E-02	10	4.90E-01	4.41E-02	1.22E-05	9.72E-05
SLINE12 (EB Rene Ave)	156.2	9.71E-02	4.90E-02	10	4.90E-01	4.75E-02	1.32E-05	1.05E-04
Volume Source	**Distance (meter)**	**Distance (mile)**	**Rate (g/veh*day)**		**g/sec*veh**	**g/hr**	**g/sec**	
SLINE3 (Idle parking lot)	NA	NA	8.64E-02	10	1.00E-05	3.00E-03	8.33E-07	
SLINE4 (Idle Entrance)	NA	NA	8.64E-02	10	1.00E-06	3.00E-03	8.33E-07	

Trucks	208
Trucks/hr	18.90909
Truck each way	9.454545

Appendix B

AERMOD Output Files and Concentration Contours

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  RURAL  ADJ_U*

                                            ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses RURAL Dispersion Only.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Accepts FLAGPOLE Receptor . Heights.
      * The User Specified a Pollutant Type of: PM_10

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates PERIOD Averages

 **This Run Includes:    631 Source(s);       1 Source Group(s); and   273 Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:    631 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                 and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  19191
```

```
 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor
(RECTABLE Keyword)
          Model Outputs External File(s) of Concurrent Values for
Postprocessing (POSTFILE Keyword)
          Model Outputs External File(s) of High Values for Plotting
(PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked Values
(SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for
Calm Hours
                                                                 m for
Missing Hours
                                                                 b for
Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     7.00 ;
Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC
;  Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      4.1 MB of RAM.

 **Input Runstream File:          aermod.inp
 **Output Print File:             aermod.out

 **Detailed Error/Message File:   Elite Truck with Off Site 102622.err
 **File for Summary of Results:   Elite Truck with Off Site 102622.sum
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: S:\AMBIENT_Projects\Sacramento Elite Truck Repair Facility HRA\MET DATA - Sac In Met Version: 19191
Profile file: S:\AMBIENT_Projects\Sacramento Elite Truck Repair Facility HRA\MET DATA - Sac In
Surface format: FREE
Profile format: FREE
Surface station no.: 93225 Upper air station no.: 23230
Name: UNKNOWN Name: OAKLAND/WSO_AP
Year: 2014 Year: 2014

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
14	01	01	1	01	-15.5	0.166	-9.000	-9.000	-999.	162.	30.3	0.05	0.69	1.00	2.36	211.	10.1	275.4	2.0
14	01	01	1	02	-3.4	0.079	-9.000	-9.000	-999.	56.	13.1	0.06	0.69	1.00	1.06	188.	10.1	273.8	2.0
14	01	01	1	03	-12.2	0.146	-9.000	-9.000	-999.	134.	23.5	0.05	0.69	1.00	2.10	136.	10.1	275.9	2.0
14	01	01	1	04	-23.3	0.226	-9.000	-9.000	-999.	257.	56.0	0.05	0.69	1.00	3.15	142.	10.1	277.0	2.0
14	01	01	1	05	-16.2	0.171	-9.000	-9.000	-999.	170.	32.2	0.06	0.69	1.00	2.33	186.	10.1	274.9	2.0
14	01	01	1	06	-3.0	0.076	-9.000	-9.000	-999.	55.	12.9	0.06	0.69	1.00	0.99	204.	10.1	273.1	2.0
14	01	01	1	07	-4.8	0.092	-9.000	-9.000	-999.	67.	14.7	0.07	0.69	1.00	1.28	171.	10.1	272.0	2.0
14	01	01	1	08	-1.8	0.065	-9.000	-9.000	-999.	40.	14.3	0.06	0.69	1.00	0.67	183.	10.1	273.1	2.0
14	01	01	1	09	-0.3	0.062	-9.000	-9.000	-999.	37.	75.4	0.06	0.69	0.41	0.82	181.	10.1	278.1	2.0
14	01	01	1	10	36.6	0.151	0.431	0.020	80.	141.	-8.6	0.05	0.69	0.28	1.55	141.	10.1	280.4	2.0
14	01	01	1	11	65.9	0.162	0.666	0.019	163.	157.	-5.9	0.07	0.69	0.24	1.48	161.	10.1	283.1	2.0
14	01	01	1	12	82.5	0.174	0.784	0.017	212.	175.	-5.8	0.07	0.69	0.22	1.59	152.	10.1	285.9	2.0

```
 14 01 01   1 13   86.0  0.219  0.835  0.015  246.  246.    -11.1  0.07
0.69   0.22    2.18  154.   10.1  288.1    2.0
 14 01 01   1 14   74.8  0.234  0.838  0.014  286.  272.    -15.6  0.05
0.69   0.23    2.56  229.   10.1  288.1    2.0
 14 01 01   1 15   42.8  0.198  0.714  0.013  308.  212.    -16.5  0.06
0.69   0.26    2.08  180.   10.1  288.8    2.0
 14 01 01   1 16   15.1  0.151  0.507  0.013  315.  141.    -20.7  0.06
0.69   0.35    1.62  194.   10.1  288.1    2.0
 14 01 01   1 17   -9.6  0.137 -9.000 -9.000 -999.  122.     24.4  0.05
0.69   0.61    1.96  223.   10.1  286.4    2.0
 14 01 01   1 18   -1.5  0.061 -9.000 -9.000 -999.   38.     13.6  0.04
0.69   1.00    0.65  251.   10.1  283.8    2.0
 14 01 01   1 19   -1.5  0.058 -9.000 -9.000 -999.   34.     12.1  0.02
0.69   1.00    0.72   47.   10.1  280.9    2.0
 14 01 01   1 20   -3.4  0.076 -9.000 -9.000 -999.   50.     11.8  0.03
0.69   1.00    1.20   81.   10.1  278.8    2.0
 14 01 01   1 21   -2.2  0.065 -9.000 -9.000 -999.   40.     11.5  0.03
0.69   1.00    0.91   73.   10.1  278.8    2.0
 14 01 01   1 22   -1.6  0.059 -9.000 -9.000 -999.   35.     12.0  0.02
0.69   1.00    0.74   22.   10.1  279.2    2.0
 14 01 01   1 23   -1.9  0.063 -9.000 -9.000 -999.   38.     11.9  0.03
0.69   1.00    0.82   60.   10.1  277.0    2.0
 14 01 01   1 24   -5.1  0.090 -9.000 -9.000 -999.   65.     13.1  0.02
0.69   1.00    1.57   34.   10.1  276.4    2.0
```

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
14	01	01	01	10.1	1	211.	2.36	275.4	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43680 HRS) RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID		AVERAGE CONC				RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00479	AT	(637542.53,	4278447.59, 16.99, 16.99, 0.00)	DC		
	2ND HIGHEST VALUE IS	0.00441	AT	(637542.53,	4278472.59, 17.30, 17.30, 0.00)	DC		
	3RD HIGHEST VALUE IS	0.00428	AT	(637542.53,	4278497.59, 17.67, 17.67, 0.00)	DC		
	4TH HIGHEST VALUE IS	0.00423	AT	(637542.53,	4278522.59, 18.09, 18.09, 0.00)	DC		
	5TH HIGHEST VALUE IS	0.00418	AT	(637538.94,	4278642.52, 17.90, 17.90, 0.00)	DC		
	6TH HIGHEST VALUE IS	0.00418	AT	(637542.53,	4278547.59, 18.27, 18.27, 0.00)	DC		
	7TH HIGHEST VALUE IS	0.00413	AT	(637670.47,	4278394.87, 16.28, 16.28, 0.00)	DC		
	8TH HIGHEST VALUE IS	0.00411	AT	(637542.53,	4278572.59, 18.24, 18.24, 0.00)	DC		
	9TH HIGHEST VALUE IS	0.00410	AT	(637538.94,	4278667.52, 17.81, 17.81, 0.00)	DC		
	10TH HIGHEST VALUE IS	0.00408	AT	(637545.47,	4278394.87, 16.42, 16.42, 0.00)	DC		

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

DATE NETWORK GROUP ID	AVERAGE CONC	(YYMMDDHH) RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	0.23806 ON 18020208: AT (637645.47, 4278394.87, 16.28, 16.28, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL ADJ_U*

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 2 Warning Message(s)
A Total of 996 Informational Message(s)

A Total of 43680 Hours Were Processed

A Total of 452 Calm Hours Identified

A Total of 544 Missing Hours Identified (1.25 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
ME W186 9199 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 9199 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

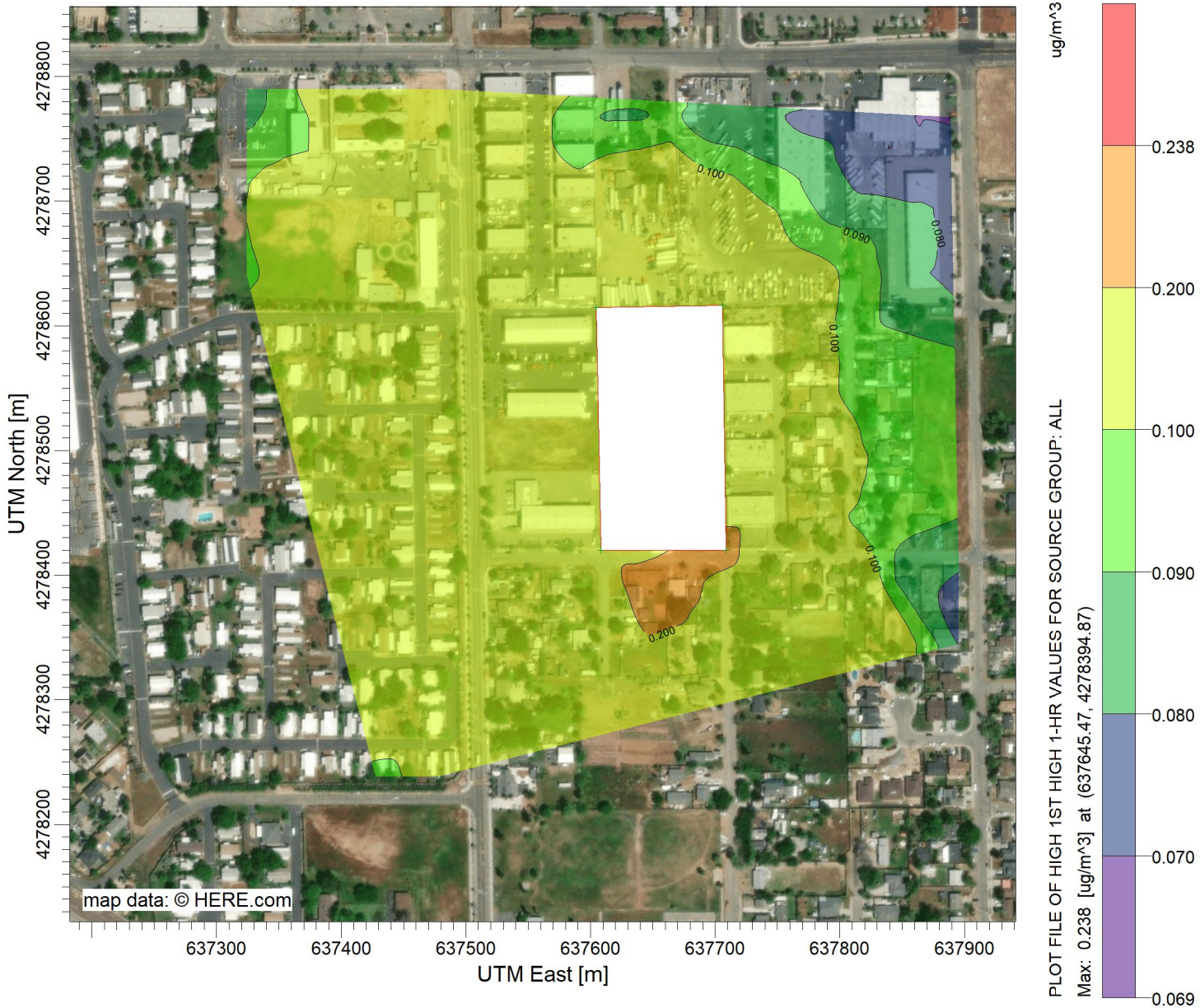
Discrete Receptor ID (Group Name)	X	Y	Concentration (AVERAGE CONC) [ug/m^3]	Elevation (ZELEV)	Hill Heights (ZHILL)	Flagpole (ZFLAG)	Averagin Period (AVE)	Source Group (GRP)	Rank	Net ID	Date (DATE(CON)
Schl1	637324.33	4278640.16	0.09577	17.15	17.15	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl2	637324.33	4278665.16	0.09872	17.11	17.11	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl3	637324.33	4278690.16	0.10055	17.03	17.03	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl4	637324.33	4278715.16	0.09943	16.91	16.91	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl5	637324.33	4278740.16	0.09433	16.78	16.78	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl6	637324.33	4278765.16	0.08801	16.66	16.66	0	1-HR	ALL	1ST		2/23/2017 08 hr
Schl7	637324.33	4278790.16	0.0842	16.56	16.56	0	1-HR	ALL	1ST		2/23/2017 08 hr
Schl8	637349.33	4278640.16	0.10475	17.29	17.29	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl9	637349.33	4278665.16	0.1076	17.15	17.15	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl10	637349.33	4278690.16	0.10844	17.03	17.03	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl11	637349.33	4278715.16	0.10517	16.92	16.92	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl12	637349.33	4278740.16	0.09733	16.8	16.8	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl13	637349.33	4278765.16	0.0937	16.67	16.67	0	1-HR	ALL	1ST		2/23/2017 08 hr
Schl14	637349.33	4278790.16	0.09327	16.53	16.53	0	1-HR	ALL	1ST		2/23/2017 08 hr
Schl15	637374.33	4278640.16	0.11534	17.37	17.37	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl16	637374.33	4278665.16	0.11794	17.22	17.22	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl17	637374.33	4278690.16	0.11712	17.11	17.11	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl18	637374.33	4278715.16	0.1109	17.03	17.03	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl19	637374.33	4278740.16	0.10017	16.95	16.95	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl20	637374.33	4278765.16	0.10006	16.85	16.85	0	1-HR	ALL	1ST		1/30/2017 07 hr
Schl21	637374.33	4278790.16	0.10488	16.76	16.76	0	1-HR	ALL	1ST		2/23/2017 08 hr
Schl22	637399.33	4278640.16	0.12784	17.41	17.41	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl23	637399.33	4278665.16	0.12966	17.28	17.28	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl24	637399.33	4278690.16	0.12605	17.19	17.19	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl25	637399.33	4278715.16	0.1161	17.14	17.14	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl26	637399.33	4278740.16	0.105	17.1	17.1	0	1-HR	ALL	1ST		2/11/2016 07 hr
Schl27	637399.33	4278765.16	0.11011	17.08	17.08	0	1-HR	ALL	1ST		1/30/2017 07 hr
Schl28	637399.33	4278790.16	0.11885	17.05	17.05	0	1-HR	ALL	1ST		2/23/2017 08 hr
Schl29	637424.33	4278640.16	0.14284	17.51	17.51	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl30	637424.33	4278665.16	0.14271	17.39	17.39	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl31	637424.33	4278690.16	0.13477	17.31	17.31	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl32	637424.33	4278715.16	0.12049	17.24	17.24	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl33	637424.33	4278740.16	0.11814	17.18	17.18	0	1-HR	ALL	1ST		12/21/2016 08 hr
Schl34	637424.33	4278765.16	0.12043	17.19	17.19	0	1-HR	ALL	1ST		1/31/2018 08 hr
Schl35	637424.33	4278790.16	0.13343	17.18	17.18	0	1-HR	ALL	1ST		2/23/2017 08 hr
Schl36	637449.33	4278640.16	0.15937	17.63	17.63	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl37	637449.33	4278665.16	0.15521	17.52	17.52	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl38	637449.33	4278690.16	0.14148	17.44	17.44	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl39	637449.33	4278715.16	0.1369	17.35	17.35	0	1-HR	ALL	1ST		12/21/2016 08 hr
Schl40	637449.33	4278740.16	0.13854	17.26	17.26	0	1-HR	ALL	1ST		2/3/2015 08 hr
Schl41	637449.33	4278765.16	0.13759	17.23	17.23	0	1-HR	ALL	1ST		2/3/2015 08 hr
Schl42	637449.33	4278790.16	0.14515	17.22	17.22	0	1-HR	ALL	1ST		2/23/2017 08 hr
Schl43	637474.33	4278640.16	0.16913	17.68	17.68	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl44	637474.33	4278665.16	0.15849	17.61	17.61	0	1-HR	ALL	1ST		1/30/2015 09 hr
Schl45	637474.33	4278690.16	0.15808	17.56	17.56	0	1-HR	ALL	1ST		12/21/2016 08 hr
Schl46	637474.33	4278715.16	0.16053	17.46	17.46	0	1-HR	ALL	1ST		2/3/2015 08 hr
Schl47	637474.33	4278740.16	0.15893	17.35	17.35	0	1-HR	ALL	1ST		2/3/2015 08 hr
Schl48	637474.33	4278765.16	0.15738	17.26	17.26	0	1-HR	ALL	1ST		1/27/2014 07 hr
Schl49	637474.33	4278790.16	0.15694	17.24	17.24	0	1-HR	ALL	1ST		1/13/2014 08 hr
W_Res1	637427.56	4278238.25	0.09188	16.14	16.14	0	1-HR	ALL	1ST		12/1/2017 17 hr
W_Res2	637452.56	4278238.25	0.10132	16.1	16.1	0	1-HR	ALL	1ST		1/22/2015 17 hr
W_Res3	637452.56	4278263.25	0.10447	15.64	15.64	0	1-HR	ALL	1ST		12/21/2018 09 hr
W_Res4	637452.56	4278288.25	0.10928	15.52	15.52	0	1-HR	ALL	1ST		2/2/2018 08 hr
W_Res5	637452.56	4278313.25	0.12053	15.58	15.58	0	1-HR	ALL	1ST		1/1/2015 09 hr
W_Res6	637452.56	4278338.25	0.12954	15.53	15.53	0	1-HR	ALL	1ST		1/1/2015 09 hr
W_Res7	637452.56	4278363.25	0.14476	15.69	15.69	0	1-HR	ALL	1ST		1/1/2015 09 hr
W_Res8	637452.56	4278388.25	0.15258	16.02	16.02	0	1-HR	ALL	1ST		1/9/2015 09 hr
W_Res9	637452.56	4278413.25	0.15498	16.2	16.2	0	1-HR	ALL	1ST		2/23/2017 08 hr
W_Res10	637452.56	4278438.25	0.14657	16.37	16.37	0	1-HR	ALL	1ST		1/14/2016 09 hr
W_Res11	637452.56	4278463.25	0.14612	16.64	16.64	0	1-HR	ALL	1ST		1/15/2015 17 hr
W_Res12	637452.56	4278488.25	0.14151	16.92	16.92	0	1-HR	ALL	1ST		1/30/2015 09 hr
W_Res13	637452.56	4278513.25	0.14133	17.3	17.3	0	1-HR	ALL	1ST		1/30/2015 09 hr
W_Res14	637452.56	4278538.25	0.14256	17.49	17.49	0	1-HR	ALL	1ST		1/30/2015 09 hr
W_Res15	637452.56	4278563.25	0.14608	17.71	17.71	0	1-HR	ALL	1ST		1/30/2015 09 hr
W_Res16	637452.56	4278588.25	0.15247	17.92	17.92	0	1-HR	ALL	1ST		1/30/2015 09 hr
W_Res17	637477.56	4278238.25	0.11224	16	16	0	1-HR	ALL	1ST		1/12/2018 07 hr
W_Res18	637477.56	4278263.25	0.11803	15.58	15.58	0	1-HR	ALL	1ST		1/12/2018 07 hr
W_Res19	637477.56	4278288.25	0.12907	15.49	15.49	0	1-HR	ALL	1ST		1/22/2015 17 hr
W_Res20	637477.56	4278313.25	0.14106	15.58	15.58	0	1-HR	ALL	1ST		1/22/2015 17 hr
W_Res21	637477.56	4278338.25	0.1494	15.59	15.59	0	1-HR	ALL	1ST		1/22/2015 17 hr
W_Res22	637477.56	4278363.25	0.15496	15.74	15.74	0	1-HR	ALL	1ST		2/2/2018 08 hr
W_Res23	637477.56	4278388.25	0.16022	15.98	15.98	0	1-HR	ALL	1ST		2/2/2018 08 hr
W_Res24	637477.56	4278413.25	0.17447	16.19	16.19	0	1-HR	ALL	1ST		2/5/2018 08 hr
W_Res25	637477.56	4278438.25	0.16427	16.41	16.41	0	1-HR	ALL	1ST		2/2/2018 08 hr
W_Res26	637477.56	4278463.25	0.16652	16.68	16.68	0	1-HR	ALL	1ST		2/2/2018 08 hr
W_Res27	637477.56	4278488.25	0.16896	17	17	0	1-HR	ALL	1ST		2/2/2018 08 hr
W_Res28	637477.56	4278513.25	0.1715	17.34	17.34	0	1-HR	ALL	1ST		2/2/2018 08 hr
W_Res29	637477.56	4278538.25	0.17281	17.6	17.6	0	1-HR	ALL	1ST		2/2/2018 08 hr
W_Res30	637477.56	4278563.25	0.17349	17.81	17.81	0	1-HR	ALL	1ST		12/1/2017 17 hr
W_Res31	637477.56	4278588.25	0.17289	17.94	17.94	0	1-HR	ALL	1ST		12/1/2017 17 hr
S_Res1	637545.47	4278344.87	0.17143	15.99	15.99	0	1-HR	ALL	1ST		12/13/2018 17 hr
S_Res2	637545.47	4278369.87	0.18044	16.21	16.21	0	1-HR	ALL	1ST		12/13/2018 17 hr
S_Res3	637545.47	4278394.87	0.17542	16.42	16.42	0	1-HR	ALL	1ST		1/9/2015 09 hr
S_Res4	637570.47	4278344.87	0.13895	16.1	16.1	0	1-HR	ALL	1ST		1/2/2014 08 hr
S_Res5	637570.47	4278369.87	0.17388	16.21	16.21	0	1-HR	ALL	1ST		1/1/2015 09 hr
S_Res6	637570.47	4278394.87	0.1711	16.33	16.33	0	1-HR	ALL	1ST		1/30/2015 08 hr
S_Res7	637595.47	4278344.87	0.1559	16	16	0	1-HR	ALL	1ST		2/8/2018 08 hr
S_Res8	637595.47	4278369.87	0.16202	16.09	16.09	0	1-HR	ALL	1ST		1/16/2017 08 hr
S_Res9	637595.47	4278394.87	0.18986	16.2	16.2	0	1-HR	ALL	1ST		1/1/2015 09 hr
S_Res10	637620.47	4278344.87	0.17467	15.86	15.86	0	1-HR	ALL	1ST		12/1/2017 17 hr
S_Res11	637620.47	4278369.87	0.18244	15.95	15.95	0	1-HR	ALL	1ST		2/8/2018 08 hr
S_Res12	637620.47	4278394.87	0.19086	16.17	16.17	0	1-HR	ALL	1ST		1/16/2017 08 hr
S_Res13	637645.47	4278344.87	0.19657	15.9	15.9	0	1-HR	ALL	1ST		1/8/2016 09 hr
S_Res14	637645.47	4278369.87	0.21493	15.97	15.97	0	1-HR	ALL	1ST		1/8/2016 09 hr
S_Res15	637645.47	4278394.87	0.23806	16.28	16.28	0	1-HR	ALL	1ST		2/2/2018 08 hr
S_Res16	637670.47	4278344.87	0.18744	15.99	15.99	0	1-HR	ALL	1ST		2/25/2015 08 hr
S_Res17	637670.47	4278369.87	0.20954	16.01	16.01	0	1-HR	ALL	1ST		2/25/2015 08 hr
S_Res18	637670.47	4278394.87	0.23226	16.28	16.28	0	1-HR	ALL	1ST		12/7/2015 08 hr
S_Res19	637695.47	4278344.87	0.17356	16.03	16.03	0	1-HR	ALL	1ST		1/19/2015 07 hr
S_Res20	637695.47	4278369.87	0.18362	16.04	16.04	0	1-HR	ALL	1ST		1/19/2015 07 hr
S_Res21	637695.47	4278394.87	0.19262	16.2	16.2	0	1-HR	ALL	1ST		3/4/2015 07 hr
S_Res22	637720.47	4278344.87	0.1618	16.1	16.1	0	1-HR	ALL	1ST		2/11/2016 08 hr
S_Res23	637720.47	4278369.87	0.17373	16.06	16.06	0	1-HR	ALL	1ST		2/11/2016 08 hr
S_Res24	637720.47	4278394.87	0.18095	16.1	16.1	0	1-HR	ALL	1ST		2/11/2016 08 hr
S_Res25	637745.47	4278344.87	0.14809	16.25	16.25	0	1-HR	ALL	1ST		2/11/2016 08 hr
S_Res26	637745.47	4278369.87	0.14285	16.14	16.14	0	1-HR	ALL	1ST		1/17/2014 08 hr
S_Res27	637745.47	4278394.87	0.14532	16.1	16.1	0	1-HR	ALL	1ST		1/12/2015 09 hr
S_Res28	637770.47	4278344.87	0.12337	16.27	16.27	0	1-HR	ALL	1ST		2/24/2017 07 hr
S_Res29	637770.47	4278369.87	0.13304	16.16	16.16	0	1-HR	ALL	1ST		1/12/2015 09 hr
S_Res30	637770.47	4278394.87	0.14174	16.17	16.17	0	1-HR	ALL	1ST		1/12/2015 09 hr
S_Res31	637795.47	4278344.87	0.12166	16.32	16.32	0	1-HR	ALL	1ST		1/12/2015 09 hr
S_Res32	637795.47	4278369.87	0.12787	16.18	16.18	0	1-HR	ALL	1ST		1/12/2015 09 hr

S_Res33	637795.47	4278394.87	0.12938	16.29	16.29	0	1-HR	ALL	1ST	1/12/2015 09 hr
S_Res34	637820.47	4278344.87	0.11869	16.83	16.83	0	1-HR	ALL	1ST	1/12/2015 09 hr
S_Res35	637820.47	4278369.87	0.11737	16.37	16.37	0	1-HR	ALL	1ST	1/12/2015 09 hr
S_Res36	637820.47	4278394.87	0.11034	16.48	16.48	0	1-HR	ALL	1ST	1/12/2015 09 hr
S_Res37	637845.47	4278344.87	0.10933	17.14	17.14	0	1-HR	ALL	1ST	1/12/2015 09 hr
S_Res38	637845.47	4278369.87	0.1017	16.58	16.58	0	1-HR	ALL	1ST	1/12/2015 09 hr
S_Res39	637845.47	4278394.87	0.08977	16.7	16.7	0	1-HR	ALL	1ST	12/7/2018 17 hr
S_Res40	637870.47	4278344.87	0.09524	17.13	17.13	0	1-HR	ALL	1ST	1/12/2015 09 hr
S_Res41	637870.47	4278369.87	0.08414	16.74	16.74	0	1-HR	ALL	1ST	12/7/2018 17 hr
S_Res42	637870.47	4278394.87	0.08273	16.85	16.85	0	1-HR	ALL	1ST	1/16/2017 09 hr
S_Res43	637895.47	4278344.87	0.07951	17.09	17.09	0	1-HR	ALL	1ST	1/12/2015 09 hr
S_Res44	637895.47	4278369.87	0.07398	16.89	16.89	0	1-HR	ALL	1ST	12/7/2018 17 hr
S_Res45	637895.47	4278394.87	0.07807	17	17	0	1-HR	ALL	1ST	1/16/2017 09 hr
E_Res1	637775.6	4278446.12	0.12497	16.49	16.49	0	1-HR	ALL	1ST	1/12/2015 09 hr
E_Res2	637775.6	4278471.12	0.12179	16.63	16.63	0	1-HR	ALL	1ST	1/15/2014 17 hr
E_Res3	637775.6	4278496.12	0.12221	16.64	16.64	0	1-HR	ALL	1ST	2/9/2018 08 hr
E_Res4	637775.6	4278521.12	0.11342	16.72	16.72	0	1-HR	ALL	1ST	1/28/2014 09 hr
E_Res5	637775.6	4278546.12	0.11346	16.8	16.8	0	1-HR	ALL	1ST	1/28/2014 09 hr
E_Res6	637775.6	4278571.12	0.10867	16.91	16.91	0	1-HR	ALL	1ST	1/28/2014 09 hr
E_Res7	637775.6	4278596.12	0.10802	17.14	17.14	0	1-HR	ALL	1ST	1/28/2014 09 hr
E_Res8	637800.6	4278446.12	0.10075	16.59	16.59	0	1-HR	ALL	1ST	1/16/2017 09 hr
E_Res9	637800.6	4278471.12	0.10738	16.73	16.73	0	1-HR	ALL	1ST	1/15/2014 17 hr
E_Res10	637800.6	4278496.12	0.11288	16.83	16.83	0	1-HR	ALL	1ST	2/9/2018 08 hr
E_Res11	637800.6	4278521.12	0.10264	16.92	16.92	0	1-HR	ALL	1ST	12/8/2014 17 hr
E_Res12	637800.6	4278546.12	0.09957	16.93	16.93	0	1-HR	ALL	1ST	1/28/2014 09 hr
E_Res13	637800.6	4278571.12	0.09969	16.94	16.94	0	1-HR	ALL	1ST	1/28/2014 09 hr
E_Res14	637800.6	4278596.12	0.09827	17.08	17.08	0	1-HR	ALL	1ST	1/28/2014 09 hr
E_Res15	637825.6	4278446.12	0.09466	16.88	16.88	0	1-HR	ALL	1ST	1/16/2017 09 hr
E_Res16	637825.6	4278471.12	0.09653	17.06	17.06	0	1-HR	ALL	1ST	1/16/2017 09 hr
E_Res17	637825.6	4278496.12	0.09896	17.17	17.17	0	1-HR	ALL	1ST	2/9/2018 08 hr
E_Res18	637825.6	4278521.12	0.0982	17.21	17.21	0	1-HR	ALL	1ST	2/9/2018 08 hr
E_Res19	637825.6	4278546.12	0.09147	17.18	17.18	0	1-HR	ALL	1ST	2/9/2018 08 hr
E_Res20	637825.6	4278571.12	0.09007	17.16	17.16	0	1-HR	ALL	1ST	2/9/2018 08 hr
E_Res21	637825.6	4278596.12	0.09146	17.27	17.27	0	1-HR	ALL	1ST	2/9/2018 08 hr
E_Ind1	637731.59	4278446.3	0.18002	16.52	16.52	0	1-HR	ALL	1ST	1/12/2015 09 hr
E_Ind2	637731.59	4278471.3	0.16856	16.83	16.83	0	1-HR	ALL	1ST	2/9/2018 08 hr
E_Ind3	637731.59	4278496.3	0.16199	16.95	16.95	0	1-HR	ALL	1ST	1/28/2014 09 hr
E_Ind4	637731.59	4278521.3	0.14557	17.11	17.11	0	1-HR	ALL	1ST	1/28/2014 09 hr
E_Ind5	637731.59	4278546.3	0.13521	17.32	17.32	0	1-HR	ALL	1ST	1/28/2014 09 hr
E_Ind6	637731.59	4278571.3	0.13611	17.55	17.55	0	1-HR	ALL	1ST	1/28/2014 09 hr
E_Ind7	637731.59	4278596.3	0.13837	17.77	17.77	0	1-HR	ALL	1ST	1/28/2014 09 hr
E_Ind8	637756.59	4278446.3	0.15034	16.53	16.53	0	1-HR	ALL	1ST	1/12/2015 09 hr
E_Ind9	637756.59	4278471.3	0.14484	16.8	16.8	0	1-HR	ALL	1ST	2/9/2018 08 hr
E_Ind10	637756.59	4278496.3	0.13075	16.86	16.86	0	1-HR	ALL	1ST	12/25/2017 07 hr
E_Ind11	637756.59	4278521.3	0.13157	16.98	16.98	0	1-HR	ALL	1ST	1/28/2014 09 hr
E_Ind12	637756.59	4278546.3	0.12282	17.14	17.14	0	1-HR	ALL	1ST	1/28/2014 09 hr
W_Ind1	637542.53	4278447.59	0.15848	16.99	16.99	0	1-HR	ALL	1ST	12/13/2018 17 hr
W_Ind2	637542.53	4278472.59	0.15577	17.3	17.3	0	1-HR	ALL	1ST	12/13/2018 17 hr
W_Ind3	637542.53	4278497.59	0.15272	17.67	17.67	0	1-HR	ALL	1ST	12/13/2018 17 hr
W_Ind4	637542.53	4278522.59	0.15107	18.09	18.09	0	1-HR	ALL	1ST	1/12/2017 17 hr
W_Ind5	637542.53	4278547.59	0.14982	18.27	18.27	0	1-HR	ALL	1ST	1/12/2017 17 hr
W_Ind6	637542.53	4278572.59	0.14741	18.24	18.24	0	1-HR	ALL	1ST	1/12/2017 17 hr
W_Ind7	637542.53	4278597.59	0.14377	18.21	18.21	0	1-HR	ALL	1ST	1/12/2017 17 hr
W_Ind8	637567.53	4278447.59	0.13743	17.04	17.04	0	1-HR	ALL	1ST	1/1/2015 09 hr
W_Ind9	637567.53	4278472.59	0.14761	17.38	17.38	0	1-HR	ALL	1ST	1/1/2015 09 hr
W_Ind10	637567.53	4278497.59	0.14773	17.7	17.7	0	1-HR	ALL	1ST	1/1/2015 09 hr
W_Ind11	637567.53	4278522.59	0.13549	18.18	18.18	0	1-HR	ALL	1ST	1/9/2015 09 hr
W_Ind12	637567.53	4278547.59	0.1398	18.38	18.38	0	1-HR	ALL	1ST	1/15/2015 17 hr
W_Ind13	637567.53	4278572.59	0.15218	18.31	18.31	0	1-HR	ALL	1ST	1/30/2015 09 hr
W_Ind14	637567.53	4278597.59	0.14889	18.3	18.3	0	1-HR	ALL	1ST	1/30/2015 09 hr
W_Ind15	637592.53	4278447.59	0.13685	17.06	17.06	0	1-HR	ALL	1ST	1/16/2017 08 hr
W_Ind16	637592.53	4278472.59	0.15101	17.43	17.43	0	1-HR	ALL	1ST	1/1/2015 09 hr
W_Ind17	637592.53	4278497.59	0.15677	17.67	17.67	0	1-HR	ALL	1ST	1/1/2015 09 hr
W_Ind18	637592.53	4278522.59	0.16048	18.17	18.17	0	1-HR	ALL	1ST	1/1/2015 09 hr
W_Ind19	637592.53	4278547.59	0.16353	18.34	18.34	0	1-HR	ALL	1ST	1/30/2015 09 hr
W_Ind20	637592.53	4278572.59	0.16033	18.31	18.31	0	1-HR	ALL	1ST	1/30/2015 09 hr
W_Ind21	637592.53	4278597.59	0.15529	18.3	18.3	0	1-HR	ALL	1ST	1/30/2015 09 hr
N_Ind1	637538.94	4278642.52	0.14126	17.9	17.9	0	1-HR	ALL	1ST	1/12/2017 17 hr
N_Ind2	637538.94	4278667.52	0.13678	17.81	17.81	0	1-HR	ALL	1ST	1/12/2017 17 hr
N_Ind3	637538.94	4278692.52	0.13245	17.77	17.77	0	1-HR	ALL	1ST	12/4/2015 17 hr
N_Ind4	637538.94	4278717.52	0.1338	17.74	17.74	0	1-HR	ALL	1ST	12/4/2015 17 hr
N_Ind5	637538.94	4278742.52	0.13514	17.71	17.71	0	1-HR	ALL	1ST	12/4/2015 17 hr
N_Ind6	637538.94	4278767.52	0.1365	17.71	17.71	0	1-HR	ALL	1ST	12/4/2015 17 hr
N_Ind7	637563.94	4278642.52	0.1259	17.85	17.85	0	1-HR	ALL	1ST	2/3/2015 08 hr
N_Ind8	637563.94	4278667.52	0.11572	17.72	17.72	0	1-HR	ALL	1ST	1/27/2014 07 hr
N_Ind9	637563.94	4278692.52	0.10406	17.68	17.68	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind10	637563.94	4278717.52	0.10298	17.7	17.7	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind11	637563.94	4278742.52	0.10217	17.75	17.75	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind12	637563.94	4278767.52	0.10217	17.8	17.8	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind13	637588.94	4278642.52	0.13666	17.85	17.85	0	1-HR	ALL	1ST	1/27/2014 07 hr
N_Ind14	637588.94	4278667.52	0.11401	17.7	17.7	0	1-HR	ALL	1ST	1/14/2014 08 hr
N_Ind15	637588.94	4278692.52	0.11187	17.68	17.68	0	1-HR	ALL	1ST	11/21/2016 17 hr
N_Ind16	637588.94	4278717.52	0.10258	17.75	17.75	0	1-HR	ALL	1ST	11/21/2016 17 hr
N_Ind17	637588.94	4278742.52	0.09137	17.88	17.88	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind18	637588.94	4278767.52	0.09237	17.99	17.99	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind19	637613.94	4278642.52	0.16321	17.92	17.92	0	1-HR	ALL	1ST	11/21/2016 17 hr
N_Ind20	637613.94	4278667.52	0.1399	17.78	17.78	0	1-HR	ALL	1ST	11/5/2014 07 hr
N_Ind21	637613.94	4278692.52	0.12536	17.75	17.75	0	1-HR	ALL	1ST	1/13/2014 08 hr
N_Ind22	637613.94	4278717.52	0.11084	17.8	17.8	0	1-HR	ALL	1ST	1/13/2014 08 hr
N_Ind23	637613.94	4278742.52	0.09732	17.93	17.93	0	1-HR	ALL	1ST	1/13/2014 08 hr
N_Ind24	637613.94	4278767.52	0.08879	18.05	18.05	0	1-HR	ALL	1ST	1/13/2014 09 hr
N_Ind25	637638.94	4278642.52	0.18734	17.92	17.92	0	1-HR	ALL	1ST	1/13/2014 09 hr
N_Ind26	637638.94	4278667.52	0.15713	17.8	17.8	0	1-HR	ALL	1ST	1/13/2014 09 hr
N_Ind27	637638.94	4278692.52	0.1328	17.76	17.76	0	1-HR	ALL	1ST	1/13/2014 09 hr
N_Ind28	637638.94	4278717.52	0.11393	17.8	17.8	0	1-HR	ALL	1ST	1/13/2014 09 hr
N_Ind29	637638.94	4278742.52	0.09952	17.92	17.92	0	1-HR	ALL	1ST	1/13/2014 09 hr
N_Ind30	637638.94	4278767.52	0.08884	18.09	18.09	0	1-HR	ALL	1ST	1/13/2014 09 hr
N_Ind31	637663.94	4278642.52	0.18418	17.99	17.99	0	1-HR	ALL	1ST	12/28/2017 07 hr
N_Ind32	637663.94	4278667.52	0.15535	17.88	17.88	0	1-HR	ALL	1ST	12/28/2017 07 hr
N_Ind33	637663.94	4278692.52	0.13284	17.84	17.84	0	1-HR	ALL	1ST	12/28/2017 07 hr
N_Ind34	637663.94	4278717.52	0.11558	17.88	17.88	0	1-HR	ALL	1ST	12/28/2017 07 hr
N_Ind35	637663.94	4278742.52	0.10239	18.02	18.02	0	1-HR	ALL	1ST	12/28/2017 07 hr
N_Ind36	637663.94	4278767.52	0.0924	18.15	18.15	0	1-HR	ALL	1ST	12/28/2017 07 hr
N_Ind37	637688.94	4278642.52	0.15642	18.11	18.11	0	1-HR	ALL	1ST	10/28/2014 17 hr
N_Ind38	637688.94	4278667.52	0.13683	18.02	18.02	0	1-HR	ALL	1ST	12/4/2015 17 hr
N_Ind39	637688.94	4278692.52	0.11961	17.98	17.98	0	1-HR	ALL	1ST	12/4/2015 17 hr
N_Ind40	637688.94	4278717.52	0.10452	18.01	18.01	0	1-HR	ALL	1ST	12/4/2015 17 hr
N_Ind41	637688.94	4278742.52	0.09237	18.11	18.11	0	1-HR	ALL	1ST	12/4/2015 17 hr
N_Ind42	637688.94	4278767.52	0.08339	18.12	18.12	0	1-HR	ALL	1ST	12/4/2015 17 hr
N_Ind43	637713.94	4278642.52	0.13383	18.19	18.19	0	1-HR	ALL	1ST	12/19/2017 08 hr
N_Ind44	637713.94	4278667.52	0.12124	18.11	18.11	0	1-HR	ALL	1ST	10/28/2014 17 hr
N_Ind45	637713.94	4278692.52	0.11328	18.09	18.09	0	1-HR	ALL	1ST	10/28/2014 17 hr
N_Ind46	637713.94	4278717.52	0.10162	18.15	18.15	0	1-HR	ALL	1ST	10/28/2014 17 hr

N_Ind47	637713.94	4278742.52	0.09032	18.24	18.24	0	1-HR	ALL	1ST	12/4/2015 17 hr
N_Ind48	637713.94	4278767.52	0.08551	18.2	18.2	0	1-HR	ALL	1ST	12/4/2015 17 hr
N_Ind49	637738.94	4278642.52	0.11481	18.09	18.09	0	1-HR	ALL	1ST	12/19/2017 08 hr
N_Ind50	637738.94	4278667.52	0.11182	18.09	18.09	0	1-HR	ALL	1ST	12/19/2017 08 hr
N_Ind51	637738.94	4278692.52	0.10275	18.14	18.14	0	1-HR	ALL	1ST	1/11/2018 07 hr
N_Ind52	637738.94	4278717.52	0.09186	18.27	18.27	0	1-HR	ALL	1ST	2/3/2015 07 hr
N_Ind53	637738.94	4278742.52	0.08866	18.36	18.36	0	1-HR	ALL	1ST	10/28/2014 17 hr
N_Ind54	637738.94	4278767.52	0.08379	18.33	18.33	0	1-HR	ALL	1ST	10/28/2014 17 hr
N_Ind55	637763.94	4278642.52	0.11165	18	18	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind56	637763.94	4278667.52	0.09863	18.11	18.11	0	1-HR	ALL	1ST	12/19/2017 08 hr
N_Ind57	637763.94	4278692.52	0.0968	18.24	18.24	0	1-HR	ALL	1ST	12/19/2017 08 hr
N_Ind58	637763.94	4278717.52	0.09084	18.43	18.43	0	1-HR	ALL	1ST	1/11/2018 07 hr
N_Ind59	637763.94	4278742.52	0.0829	18.54	18.54	0	1-HR	ALL	1ST	1/11/2018 07 hr
N_Ind60	637763.94	4278767.52	0.07788	18.54	18.54	0	1-HR	ALL	1ST	2/3/2015 07 hr
N_Ind61	637788.94	4278642.52	0.10411	17.99	17.99	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind62	637788.94	4278667.52	0.09532	18.19	18.19	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind63	637788.94	4278692.52	0.08648	18.31	18.31	0	1-HR	ALL	1ST	12/19/2017 08 hr
N_Ind64	637788.94	4278717.52	0.08576	18.48	18.48	0	1-HR	ALL	1ST	12/19/2017 08 hr
N_Ind65	637788.94	4278742.52	0.08112	18.61	18.61	0	1-HR	ALL	1ST	1/11/2018 07 hr
N_Ind66	637788.94	4278767.52	0.07726	18.6	18.6	0	1-HR	ALL	1ST	1/11/2018 07 hr
N_Ind67	637813.94	4278642.52	0.09583	18.04	18.04	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind68	637813.94	4278667.52	0.09275	18.32	18.32	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind69	637813.94	4278692.52	0.08348	18.37	18.37	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind70	637813.94	4278717.52	0.07689	18.37	18.37	0	1-HR	ALL	1ST	12/19/2017 08 hr
N_Ind71	637813.94	4278742.52	0.07741	18.5	18.5	0	1-HR	ALL	1ST	12/19/2017 08 hr
N_Ind72	637813.94	4278767.52	0.07514	18.59	18.59	0	1-HR	ALL	1ST	12/19/2017 08 hr
N_Ind73	637838.94	4278642.52	0.08848	18.25	18.25	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind74	637838.94	4278667.52	0.08805	18.47	18.47	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind75	637838.94	4278692.52	0.08351	18.47	18.47	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind76	637838.94	4278717.52	0.07546	18.4	18.4	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind77	637838.94	4278742.52	0.0699	18.48	18.48	0	1-HR	ALL	1ST	2/2/2015 07 hr
N_Ind78	637838.94	4278767.52	0.07105	18.7	18.7	0	1-HR	ALL	1ST	12/19/2017 08 hr
N_Ind79	637863.94	4278642.52	0.08196	18.37	18.37	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind80	637863.94	4278667.52	0.0829	18.53	18.53	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind81	637863.94	4278692.52	0.08142	18.55	18.55	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind82	637863.94	4278717.52	0.07677	18.54	18.54	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind83	637863.94	4278742.52	0.07071	18.57	18.57	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind84	637863.94	4278767.52	0.06967	18.77	18.77	0	1-HR	ALL	1ST	1/9/2015 09 hr
N_Ind85	637888.94	4278642.52	0.07571	18.28	18.28	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind86	637888.94	4278667.52	0.07778	18.43	18.43	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind87	637888.94	4278692.52	0.07822	18.51	18.51	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind88	637888.94	4278717.52	0.0763	18.56	18.56	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind89	637888.94	4278742.52	0.0725	18.57	18.57	0	1-HR	ALL	1ST	1/28/2014 09 hr
N_Ind90	637888.94	4278767.52	0.06902	18.67	18.67	0	1-HR	ALL	1ST	1/28/2014 09 hr
	637604.83	4278614.5	0.15986	18.32	18.32	1.8	1-HR	ALL	1ST	1/27/2014 07 hr
	637705.86	4278616.23	0.14622	18.28	18.28	1.8	1-HR	ALL	1ST	1/28/2014 09 hr
	637708.87	4278420	0.22082	16.26	16.26	1.8	1-HR	ALL	1ST	2/11/2016 08 hr
	637608.5	4278420	0.17178	16.49	16.49	1.8	1-HR	ALL	1ST	1/9/2015 09 hr

PROJECT TITLE:

DPM Hourly Contour



COMMENTS:

SOURCES:

12

RECEPTORS:

273

OUTPUT TYPE:

Concentration

MAX:

0.238 ug/m^3

DATE:

10/31/2022

SCALE: 1:5,000

0 0.1 km

PROJECT NO.:

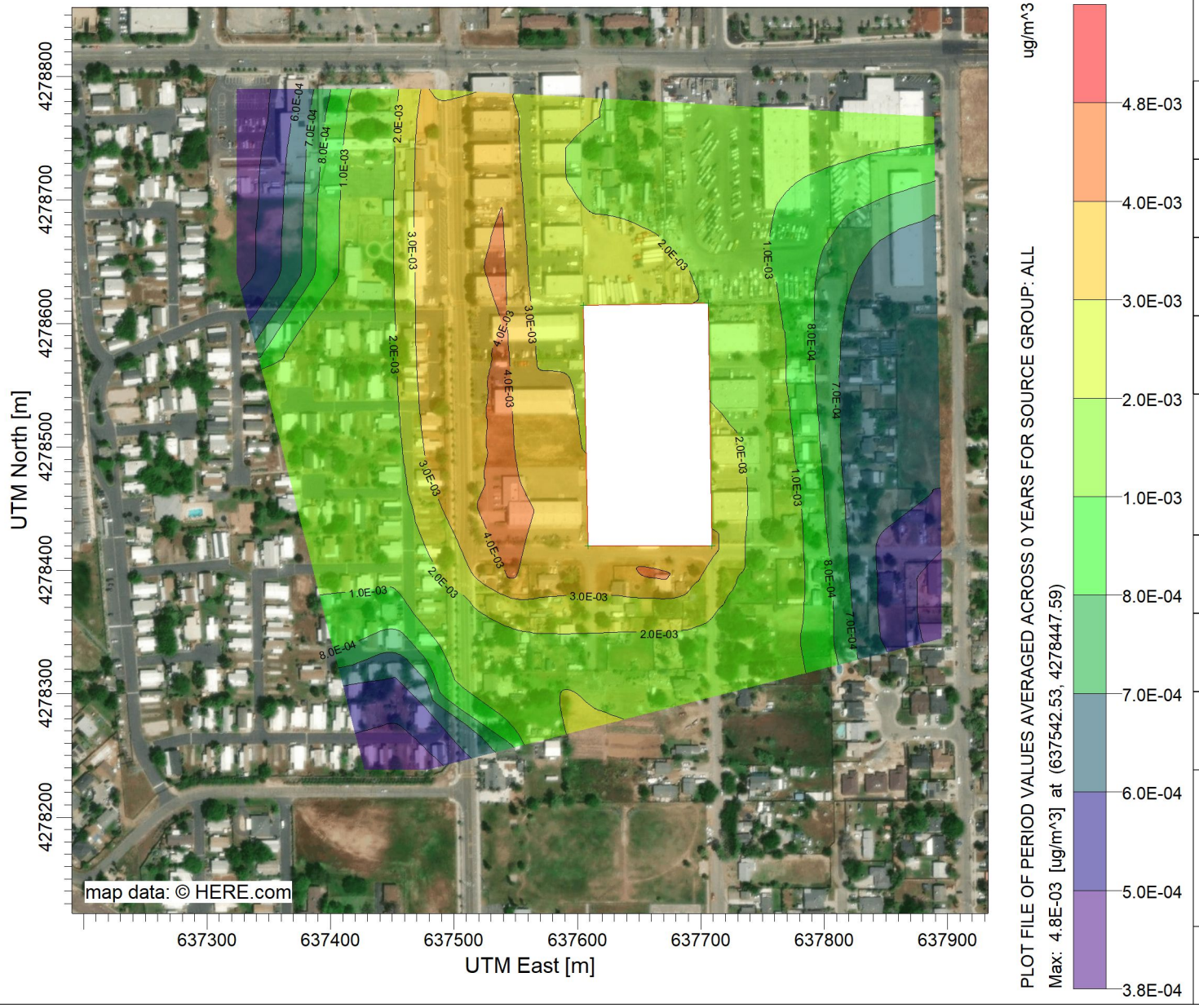
Discrete Receptor ID (Group Name)	X	Y	Concentration (AVERAGE CONC) [ug/m^3]	vation (ZELI	Hill Heights (ZHILL)	Flagpole (ZFLAG)	Averagin Period (AVE)	Source Group (GRP)	Num Hours (NUM HRS)	Net ID
Schl1	637324.33	4278640.16	0.00044	17.15	17.15	0	PERIOD	ALL	43680	
Schl2	637324.33	4278665.16	0.00044	17.11	17.11	0	PERIOD	ALL	43680	
Schl3	637324.33	4278690.16	0.00044	17.03	17.03	0	PERIOD	ALL	43680	
Schl4	637324.33	4278715.16	0.00043	16.91	16.91	0	PERIOD	ALL	43680	
Schl5	637324.33	4278740.16	0.00042	16.78	16.78	0	PERIOD	ALL	43680	
Schl6	637324.33	4278765.16	0.00041	16.66	16.66	0	PERIOD	ALL	43680	
Schl7	637324.33	4278790.16	0.0004	16.56	16.56	0	PERIOD	ALL	43680	
Schl8	637349.33	4278640.16	0.00054	17.29	17.29	0	PERIOD	ALL	43680	
Schl9	637349.33	4278665.16	0.00054	17.15	17.15	0	PERIOD	ALL	43680	
Schl10	637349.33	4278690.16	0.00053	17.03	17.03	0	PERIOD	ALL	43680	
Schl11	637349.33	4278715.16	0.00053	16.92	16.92	0	PERIOD	ALL	43680	
Schl12	637349.33	4278740.16	0.00052	16.8	16.8	0	PERIOD	ALL	43680	
Schl13	637349.33	4278765.16	0.0005	16.67	16.67	0	PERIOD	ALL	43680	
Schl14	637349.33	4278790.16	0.00049	16.53	16.53	0	PERIOD	ALL	43680	
Schl15	637374.33	4278640.16	0.00068	17.37	17.37	0	PERIOD	ALL	43680	
Schl16	637374.33	4278665.16	0.00068	17.22	17.22	0	PERIOD	ALL	43680	
Schl17	637374.33	4278690.16	0.00067	17.11	17.11	0	PERIOD	ALL	43680	
Schl18	637374.33	4278715.16	0.00066	17.03	17.03	0	PERIOD	ALL	43680	
Schl19	637374.33	4278740.16	0.00065	16.95	16.95	0	PERIOD	ALL	43680	
Schl20	637374.33	4278765.16	0.00063	16.85	16.85	0	PERIOD	ALL	43680	
Schl21	637374.33	4278790.16	0.00061	16.76	16.76	0	PERIOD	ALL	43680	
Schl22	637399.33	4278640.16	0.0009	17.41	17.41	0	PERIOD	ALL	43680	
Schl23	637399.33	4278665.16	0.00089	17.28	17.28	0	PERIOD	ALL	43680	
Schl24	637399.33	4278690.16	0.00089	17.19	17.19	0	PERIOD	ALL	43680	
Schl25	637399.33	4278715.16	0.00087	17.14	17.14	0	PERIOD	ALL	43680	
Schl26	637399.33	4278740.16	0.00086	17.1	17.1	0	PERIOD	ALL	43680	
Schl27	637399.33	4278765.16	0.00083	17.08	17.08	0	PERIOD	ALL	43680	
Schl28	637399.33	4278790.16	0.00079	17.05	17.05	0	PERIOD	ALL	43680	
Schl29	637424.33	4278640.16	0.00124	17.51	17.51	0	PERIOD	ALL	43680	
Schl30	637424.33	4278665.16	0.00124	17.39	17.39	0	PERIOD	ALL	43680	
Schl31	637424.33	4278690.16	0.00124	17.31	17.31	0	PERIOD	ALL	43680	
Schl32	637424.33	4278715.16	0.00122	17.24	17.24	0	PERIOD	ALL	43680	
Schl33	637424.33	4278740.16	0.00119	17.18	17.18	0	PERIOD	ALL	43680	
Schl34	637424.33	4278765.16	0.00115	17.19	17.19	0	PERIOD	ALL	43680	
Schl35	637424.33	4278790.16	0.00109	17.18	17.18	0	PERIOD	ALL	43680	
Schl36	637449.33	4278640.16	0.00189	17.63	17.63	0	PERIOD	ALL	43680	
Schl37	637449.33	4278665.16	0.00189	17.52	17.52	0	PERIOD	ALL	43680	
Schl38	637449.33	4278690.16	0.00189	17.44	17.44	0	PERIOD	ALL	43680	
Schl39	637449.33	4278715.16	0.00187	17.35	17.35	0	PERIOD	ALL	43680	
Schl40	637449.33	4278740.16	0.00183	17.26	17.26	0	PERIOD	ALL	43680	
Schl41	637449.33	4278765.16	0.00177	17.23	17.23	0	PERIOD	ALL	43680	
Schl42	637449.33	4278790.16	0.00166	17.22	17.22	0	PERIOD	ALL	43680	
Schl43	637474.33	4278640.16	0.00335	17.68	17.68	0	PERIOD	ALL	43680	
Schl44	637474.33	4278665.16	0.00339	17.61	17.61	0	PERIOD	ALL	43680	
Schl45	637474.33	4278690.16	0.0034	17.56	17.56	0	PERIOD	ALL	43680	
Schl46	637474.33	4278715.16	0.00339	17.46	17.46	0	PERIOD	ALL	43680	
Schl47	637474.33	4278740.16	0.00335	17.35	17.35	0	PERIOD	ALL	43680	
Schl48	637474.33	4278765.16	0.00326	17.26	17.26	0	PERIOD	ALL	43680	
Schl49	637474.33	4278790.16	0.00306	17.24	17.24	0	PERIOD	ALL	43680	
W_Res1	637427.56	4278238.25	0.00038	16.14	16.14	0	PERIOD	ALL	43680	
W_Res2	637452.56	4278238.25	0.00042	16.1	16.1	0	PERIOD	ALL	43680	
W_Res3	637452.56	4278263.25	0.00046	15.64	15.64	0	PERIOD	ALL	43680	
W_Res4	637452.56	4278288.25	0.00053	15.52	15.52	0	PERIOD	ALL	43680	
W_Res5	637452.56	4278313.25	0.0006	15.58	15.58	0	PERIOD	ALL	43680	
W_Res6	637452.56	4278338.25	0.0007	15.53	15.53	0	PERIOD	ALL	43680	
W_Res7	637452.56	4278363.25	0.00084	15.69	15.69	0	PERIOD	ALL	43680	
W_Res8	637452.56	4278388.25	0.00101	16.02	16.02	0	PERIOD	ALL	43680	
W_Res9	637452.56	4278413.25	0.0012	16.2	16.2	0	PERIOD	ALL	43680	
W_Res10	637452.56	4278438.25	0.00136	16.37	16.37	0	PERIOD	ALL	43680	
W_Res11	637452.56	4278463.25	0.00151	16.64	16.64	0	PERIOD	ALL	43680	
W_Res12	637452.56	4278488.25	0.00164	16.92	16.92	0	PERIOD	ALL	43680	
W_Res13	637452.56	4278513.25	0.00176	17.3	17.3	0	PERIOD	ALL	43680	
W_Res14	637452.56	4278538.25	0.00185	17.49	17.49	0	PERIOD	ALL	43680	
W_Res15	637452.56	4278563.25	0.00192	17.71	17.71	0	PERIOD	ALL	43680	
W_Res16	637452.56	4278588.25	0.00197	17.92	17.92	0	PERIOD	ALL	43680	
W_Res17	637477.56	4278238.25	0.00046	16	16	0	PERIOD	ALL	43680	
W_Res18	637477.56	4278263.25	0.00052	15.58	15.58	0	PERIOD	ALL	43680	
W_Res19	637477.56	4278288.25	0.0006	15.49	15.49	0	PERIOD	ALL	43680	
W_Res20	637477.56	4278313.25	0.00071	15.58	15.58	0	PERIOD	ALL	43680	
W_Res21	637477.56	4278338.25	0.00086	15.59	15.59	0	PERIOD	ALL	43680	
W_Res22	637477.56	4278363.25	0.00109	15.74	15.74	0	PERIOD	ALL	43680	
W_Res23	637477.56	4278388.25	0.00145	15.98	15.98	0	PERIOD	ALL	43680	
W_Res24	637477.56	4278413.25	0.00193	16.19	16.19	0	PERIOD	ALL	43680	
W_Res25	637477.56	4278438.25	0.00235	16.41	16.41	0	PERIOD	ALL	43680	
W_Res26	637477.56	4278463.25	0.00274	16.68	16.68	0	PERIOD	ALL	43680	
W_Res27	637477.56	4278488.25	0.00302	17	17	0	PERIOD	ALL	43680	
W_Res28	637477.56	4278513.25	0.00322	17.34	17.34	0	PERIOD	ALL	43680	
W_Res29	637477.56	4278538.25	0.00336	17.6	17.6	0	PERIOD	ALL	43680	
W_Res30	637477.56	4278563.25	0.00347	17.81	17.81	0	PERIOD	ALL	43680	
W_Res31	637477.56	4278588.25	0.00356	17.94	17.94	0	PERIOD	ALL	43680	
S_Res1	637545.47	4278344.87	0.00173	15.99	15.99	0	PERIOD	ALL	43680	
S_Res2	637545.47	4278369.87	0.00262	16.21	16.21	0	PERIOD	ALL	43680	
S_Res3	637545.47	4278394.87	0.00408	16.42	16.42	0	PERIOD	ALL	43680	
S_Res4	637570.47	4278344.87	0.00188	16.1	16.1	0	PERIOD	ALL	43680	
S_Res5	637570.47	4278369.87	0.00261	16.21	16.21	0	PERIOD	ALL	43680	
S_Res6	637570.47	4278394.87	0.00376	16.33	16.33	0	PERIOD	ALL	43680	
S_Res7	637595.47	4278344.87	0.0019	16	16	0	PERIOD	ALL	43680	
S_Res8	637595.47	4278369.87	0.00255	16.09	16.09	0	PERIOD	ALL	43680	
S_Res9	637595.47	4278394.87	0.00363	16.2	16.2	0	PERIOD	ALL	43680	
S_Res10	637620.47	4278344.87	0.00188	15.86	15.86	0	PERIOD	ALL	43680	
S_Res11	637620.47	4278369.87	0.00253	15.95	15.95	0	PERIOD	ALL	43680	
S_Res12	637620.47	4278394.87	0.0037	16.17	16.17	0	PERIOD	ALL	43680	
S_Res13	637645.47	4278344.87	0.00186	15.9	15.9	0	PERIOD	ALL	43680	
S_Res14	637645.47	4278369.87	0.00256	15.97	15.97	0	PERIOD	ALL	43680	
S_Res15	637645.47	4278394.87	0.00396	16.28	16.28	0	PERIOD	ALL	43680	
S_Res16	637670.47	4278344.87	0.00185	15.99	15.99	0	PERIOD	ALL	43680	
S_Res17	637670.47	4278369.87	0.00258	16.01	16.01	0	PERIOD	ALL	43680	
S_Res18	637670.47	4278394.87	0.00413	16.28	16.28	0	PERIOD	ALL	43680	
S_Res19	637695.47	4278344.87	0.00179	16.03	16.03	0	PERIOD	ALL	43680	
S_Res20	637695.47	4278369.87	0.00236	16.04	16.04	0	PERIOD	ALL	43680	
S_Res21	637695.47	4278394.87	0.00316	16.2	16.2	0	PERIOD	ALL	43680	
S_Res22	637720.47	4278344.87	0.00159	16.1	16.1	0	PERIOD	ALL	43680	
S_Res23	637720.47	4278369.87	0.0019	16.06	16.06	0	PERIOD	ALL	43680	
S_Res24	637720.47	4278394.87	0.00224	16.1	16.1	0	PERIOD	ALL	43680	
S_Res25	637745.47	4278344.87	0.00133	16.25	16.25	0	PERIOD	ALL	43680	
S_Res26	637745.47	4278369.87	0.00147	16.14	16.14	0	PERIOD	ALL	43680	
S_Res27	637745.47	4278394.87	0.00158	16.1	16.1	0	PERIOD	ALL	43680	
S_Res28	637770.47	4278344.87	0.00108	16.27	16.27	0	PERIOD	ALL	43680	

S_Res29	637770.47	4278369.87	0.00113	16.16	16.16	0	PERIOD	ALL	43680
S_Res30	637770.47	4278394.87	0.00115	16.17	16.17	0	PERIOD	ALL	43680
S_Res31	637795.47	4278344.87	0.00087	16.32	16.32	0	PERIOD	ALL	43680
S_Res32	637795.47	4278369.87	0.00088	16.18	16.18	0	PERIOD	ALL	43680
S_Res33	637795.47	4278394.87	0.00088	16.29	16.29	0	PERIOD	ALL	43680
S_Res34	637820.47	4278344.87	0.00072	16.83	16.83	0	PERIOD	ALL	43680
S_Res35	637820.47	4278369.87	0.00071	16.37	16.37	0	PERIOD	ALL	43680
S_Res36	637820.47	4278394.87	0.0007	16.48	16.48	0	PERIOD	ALL	43680
S_Res37	637845.47	4278344.87	0.0006	17.14	17.14	0	PERIOD	ALL	43680
S_Res38	637845.47	4278369.87	0.00059	16.58	16.58	0	PERIOD	ALL	43680
S_Res39	637845.47	4278394.87	0.00059	16.7	16.7	0	PERIOD	ALL	43680
S_Res40	637870.47	4278344.87	0.00052	17.13	17.13	0	PERIOD	ALL	43680
S_Res41	637870.47	4278369.87	0.00051	16.74	16.74	0	PERIOD	ALL	43680
S_Res42	637870.47	4278394.87	0.00051	16.85	16.85	0	PERIOD	ALL	43680
S_Res43	637895.47	4278344.87	0.00046	17.09	17.09	0	PERIOD	ALL	43680
S_Res44	637895.47	4278369.87	0.00046	16.89	16.89	0	PERIOD	ALL	43680
S_Res45	637895.47	4278394.87	0.00045	17	17	0	PERIOD	ALL	43680
E_Res1	637775.6	4278446.12	0.00107	16.49	16.49	0	PERIOD	ALL	43680
E_Res2	637775.6	4278471.12	0.00104	16.63	16.63	0	PERIOD	ALL	43680
E_Res3	637775.6	4278496.12	0.001	16.64	16.64	0	PERIOD	ALL	43680
E_Res4	637775.6	4278521.12	0.00096	16.72	16.72	0	PERIOD	ALL	43680
E_Res5	637775.6	4278546.12	0.00093	16.8	16.8	0	PERIOD	ALL	43680
E_Res6	637775.6	4278571.12	0.00091	16.91	16.91	0	PERIOD	ALL	43680
E_Res7	637775.6	4278596.12	0.00089	17.14	17.14	0	PERIOD	ALL	43680
E_Res8	637800.6	4278446.12	0.0008	16.59	16.59	0	PERIOD	ALL	43680
E_Res9	637800.6	4278471.12	0.00079	16.73	16.73	0	PERIOD	ALL	43680
E_Res10	637800.6	4278496.12	0.00077	16.83	16.83	0	PERIOD	ALL	43680
E_Res11	637800.6	4278521.12	0.00076	16.92	16.92	0	PERIOD	ALL	43680
E_Res12	637800.6	4278546.12	0.00075	16.93	16.93	0	PERIOD	ALL	43680
E_Res13	637800.6	4278571.12	0.00075	16.94	16.94	0	PERIOD	ALL	43680
E_Res14	637800.6	4278596.12	0.00075	17.08	17.08	0	PERIOD	ALL	43680
E_Res15	637825.6	4278446.12	0.00065	16.88	16.88	0	PERIOD	ALL	43680
E_Res16	637825.6	4278471.12	0.00064	17.06	17.06	0	PERIOD	ALL	43680
E_Res17	637825.6	4278496.12	0.00064	17.17	17.17	0	PERIOD	ALL	43680
E_Res18	637825.6	4278521.12	0.00064	17.21	17.21	0	PERIOD	ALL	43680
E_Res19	637825.6	4278546.12	0.00064	17.18	17.18	0	PERIOD	ALL	43680
E_Res20	637825.6	4278571.12	0.00065	17.16	17.16	0	PERIOD	ALL	43680
E_Res21	637825.6	4278596.12	0.00066	17.27	17.27	0	PERIOD	ALL	43680
E_Ind1	637731.59	4278446.3	0.00221	16.52	16.52	0	PERIOD	ALL	43680
E_Ind2	637731.59	4278471.3	0.0022	16.83	16.83	0	PERIOD	ALL	43680
E_Ind3	637731.59	4278496.3	0.00209	16.95	16.95	0	PERIOD	ALL	43680
E_Ind4	637731.59	4278521.3	0.00192	17.11	17.11	0	PERIOD	ALL	43680
E_Ind5	637731.59	4278546.3	0.00173	17.32	17.32	0	PERIOD	ALL	43680
E_Ind6	637731.59	4278571.3	0.00157	17.55	17.55	0	PERIOD	ALL	43680
E_Ind7	637731.59	4278596.3	0.00144	17.77	17.77	0	PERIOD	ALL	43680
E_Ind8	637756.59	4278446.3	0.0014	16.53	16.53	0	PERIOD	ALL	43680
E_Ind9	637756.59	4278471.3	0.00137	16.8	16.8	0	PERIOD	ALL	43680
E_Ind10	637756.59	4278496.3	0.00131	16.86	16.86	0	PERIOD	ALL	43680
E_Ind11	637756.59	4278521.3	0.00123	16.98	16.98	0	PERIOD	ALL	43680
E_Ind12	637756.59	4278546.3	0.00116	17.14	17.14	0	PERIOD	ALL	43680
W_Ind1	637542.53	4278447.59	0.00479	16.99	16.99	0	PERIOD	ALL	43680
W_Ind2	637542.53	4278472.59	0.00441	17.3	17.3	0	PERIOD	ALL	43680
W_Ind3	637542.53	4278497.59	0.00428	17.67	17.67	0	PERIOD	ALL	43680
W_Ind4	637542.53	4278522.59	0.00423	18.09	18.09	0	PERIOD	ALL	43680
W_Ind5	637542.53	4278547.59	0.00418	18.27	18.27	0	PERIOD	ALL	43680
W_Ind6	637542.53	4278572.59	0.00411	18.24	18.24	0	PERIOD	ALL	43680
W_Ind7	637542.53	4278597.59	0.00403	18.21	18.21	0	PERIOD	ALL	43680
W_Ind8	637567.53	4278447.59	0.00393	17.04	17.04	0	PERIOD	ALL	43680
W_Ind9	637567.53	4278472.59	0.00339	17.38	17.38	0	PERIOD	ALL	43680
W_Ind10	637567.53	4278497.59	0.00319	17.7	17.7	0	PERIOD	ALL	43680
W_Ind11	637567.53	4278522.59	0.0031	18.18	18.18	0	PERIOD	ALL	43680
W_Ind12	637567.53	4278547.59	0.00304	18.38	18.38	0	PERIOD	ALL	43680
W_Ind13	637567.53	4278572.59	0.00297	18.31	18.31	0	PERIOD	ALL	43680
W_Ind14	637567.53	4278597.59	0.00287	18.3	18.3	0	PERIOD	ALL	43680
W_Ind15	637592.53	4278447.59	0.00378	17.06	17.06	0	PERIOD	ALL	43680
W_Ind16	637592.53	4278472.59	0.00324	17.43	17.43	0	PERIOD	ALL	43680
W_Ind17	637592.53	4278497.59	0.00309	17.67	17.67	0	PERIOD	ALL	43680
W_Ind18	637592.53	4278522.59	0.00307	18.17	18.17	0	PERIOD	ALL	43680
W_Ind19	637592.53	4278547.59	0.00304	18.34	18.34	0	PERIOD	ALL	43680
W_Ind20	637592.53	4278572.59	0.00296	18.31	18.31	0	PERIOD	ALL	43680
W_Ind21	637592.53	4278597.59	0.00278	18.3	18.3	0	PERIOD	ALL	43680
N_Ind1	637538.94	4278642.52	0.00418	17.9	17.9	0	PERIOD	ALL	43680
N_Ind2	637538.94	4278667.52	0.0041	17.81	17.81	0	PERIOD	ALL	43680
N_Ind3	637538.94	4278692.52	0.00401	17.77	17.77	0	PERIOD	ALL	43680
N_Ind4	637538.94	4278717.52	0.00389	17.74	17.74	0	PERIOD	ALL	43680
N_Ind5	637538.94	4278742.52	0.00375	17.71	17.71	0	PERIOD	ALL	43680
N_Ind6	637538.94	4278767.52	0.00363	17.71	17.71	0	PERIOD	ALL	43680
N_Ind7	637563.94	4278642.52	0.00279	17.85	17.85	0	PERIOD	ALL	43680
N_Ind8	637563.94	4278667.52	0.0027	17.72	17.72	0	PERIOD	ALL	43680
N_Ind9	637563.94	4278692.52	0.0026	17.68	17.68	0	PERIOD	ALL	43680
N_Ind10	637563.94	4278717.52	0.0025	17.7	17.7	0	PERIOD	ALL	43680
N_Ind11	637563.94	4278742.52	0.00245	17.75	17.75	0	PERIOD	ALL	43680
N_Ind12	637563.94	4278767.52	0.00254	17.8	17.8	0	PERIOD	ALL	43680
N_Ind13	637588.94	4278642.52	0.00242	17.85	17.85	0	PERIOD	ALL	43680
N_Ind14	637588.94	4278667.52	0.00225	17.7	17.7	0	PERIOD	ALL	43680
N_Ind15	637588.94	4278692.52	0.0021	17.68	17.68	0	PERIOD	ALL	43680
N_Ind16	637588.94	4278717.52	0.00201	17.75	17.75	0	PERIOD	ALL	43680
N_Ind17	637588.94	4278742.52	0.00201	17.88	17.88	0	PERIOD	ALL	43680
N_Ind18	637588.94	4278767.52	0.00218	17.99	17.99	0	PERIOD	ALL	43680
N_Ind19	637613.94	4278642.52	0.00261	17.92	17.92	0	PERIOD	ALL	43680
N_Ind20	637613.94	4278667.52	0.00221	17.78	17.78	0	PERIOD	ALL	43680
N_Ind21	637613.94	4278692.52	0.00196	17.75	17.75	0	PERIOD	ALL	43680
N_Ind22	637613.94	4278717.52	0.00183	17.8	17.8	0	PERIOD	ALL	43680
N_Ind23	637613.94	4278742.52	0.00183	17.93	17.93	0	PERIOD	ALL	43680
N_Ind24	637613.94	4278767.52	0.00202	18.05	18.05	0	PERIOD	ALL	43680
N_Ind25	637638.94	4278642.52	0.00296	17.92	17.92	0	PERIOD	ALL	43680
N_Ind26	637638.94	4278667.52	0.00225	17.8	17.8	0	PERIOD	ALL	43680
N_Ind27	637638.94	4278692.52	0.00189	17.76	17.76	0	PERIOD	ALL	43680
N_Ind28	637638.94	4278717.52	0.00173	17.8	17.8	0	PERIOD	ALL	43680
N_Ind29	637638.94	4278742.52	0.00173	17.92	17.92	0	PERIOD	ALL	43680
N_Ind30	637638.94	4278767.52	0.00192	18.09	18.09	0	PERIOD	ALL	43680
N_Ind31	637663.94	4278642.52	0.00274	17.99	17.99	0	PERIOD	ALL	43680
N_Ind32	637663.94	4278667.52	0.00207	17.88	17.88	0	PERIOD	ALL	43680
N_Ind33	637663.94	4278692.52	0.00175	17.84	17.84	0	PERIOD	ALL	43680
N_Ind34	637663.94	4278717.52	0.00161	17.88	17.88	0	PERIOD	ALL	43680
N_Ind35	637663.94	4278742.52	0.00163	18.02	18.02	0	PERIOD	ALL	43680
N_Ind36	637663.94	4278767.52	0.00184	18.15	18.15	0	PERIOD	ALL	43680
N_Ind37	637688.94	4278642.52	0.00205	18.11	18.11	0	PERIOD	ALL	43680
N_Ind38	637688.94	4278667.52	0.0017	18.02	18.02	0	PERIOD	ALL	43680

N_Ind39	637688.94	4278692.52	0.00152	17.98	17.98	0	PERIOD	ALL	43680
N_Ind40	637688.94	4278717.52	0.00145	18.01	18.01	0	PERIOD	ALL	43680
N_Ind41	637688.94	4278742.52	0.00151	18.11	18.11	0	PERIOD	ALL	43680
N_Ind42	637688.94	4278767.52	0.00174	18.12	18.12	0	PERIOD	ALL	43680
N_Ind43	637713.94	4278642.52	0.00149	18.19	18.19	0	PERIOD	ALL	43680
N_Ind44	637713.94	4278667.52	0.00136	18.11	18.11	0	PERIOD	ALL	43680
N_Ind45	637713.94	4278692.52	0.00129	18.09	18.09	0	PERIOD	ALL	43680
N_Ind46	637713.94	4278717.52	0.00129	18.15	18.15	0	PERIOD	ALL	43680
N_Ind47	637713.94	4278742.52	0.00139	18.24	18.24	0	PERIOD	ALL	43680
N_Ind48	637713.94	4278767.52	0.00166	18.2	18.2	0	PERIOD	ALL	43680
N_Ind49	637738.94	4278642.52	0.00116	18.09	18.09	0	PERIOD	ALL	43680
N_Ind50	637738.94	4278667.52	0.00111	18.09	18.09	0	PERIOD	ALL	43680
N_Ind51	637738.94	4278692.52	0.00111	18.14	18.14	0	PERIOD	ALL	43680
N_Ind52	637738.94	4278717.52	0.00116	18.27	18.27	0	PERIOD	ALL	43680
N_Ind53	637738.94	4278742.52	0.00129	18.36	18.36	0	PERIOD	ALL	43680
N_Ind54	637738.94	4278767.52	0.00157	18.33	18.33	0	PERIOD	ALL	43680
N_Ind55	637763.94	4278642.52	0.00095	18	18	0	PERIOD	ALL	43680
N_Ind56	637763.94	4278667.52	0.00095	18.11	18.11	0	PERIOD	ALL	43680
N_Ind57	637763.94	4278692.52	0.00098	18.24	18.24	0	PERIOD	ALL	43680
N_Ind58	637763.94	4278717.52	0.00105	18.43	18.43	0	PERIOD	ALL	43680
N_Ind59	637763.94	4278742.52	0.0012	18.54	18.54	0	PERIOD	ALL	43680
N_Ind60	637763.94	4278767.52	0.0015	18.54	18.54	0	PERIOD	ALL	43680
N_Ind61	637788.94	4278642.52	0.00082	17.99	17.99	0	PERIOD	ALL	43680
N_Ind62	637788.94	4278667.52	0.00084	18.19	18.19	0	PERIOD	ALL	43680
N_Ind63	637788.94	4278692.52	0.00089	18.31	18.31	0	PERIOD	ALL	43680
N_Ind64	637788.94	4278717.52	0.00098	18.48	18.48	0	PERIOD	ALL	43680
N_Ind65	637788.94	4278742.52	0.00113	18.61	18.61	0	PERIOD	ALL	43680
N_Ind66	637788.94	4278767.52	0.00143	18.6	18.6	0	PERIOD	ALL	43680
N_Ind67	637813.94	4278642.52	0.00073	18.04	18.04	0	PERIOD	ALL	43680
N_Ind68	637813.94	4278667.52	0.00077	18.32	18.32	0	PERIOD	ALL	43680
N_Ind69	637813.94	4278692.52	0.00082	18.37	18.37	0	PERIOD	ALL	43680
N_Ind70	637813.94	4278717.52	0.00092	18.37	18.37	0	PERIOD	ALL	43680
N_Ind71	637813.94	4278742.52	0.00108	18.5	18.5	0	PERIOD	ALL	43680
N_Ind72	637813.94	4278767.52	0.00138	18.59	18.59	0	PERIOD	ALL	43680
N_Ind73	637838.94	4278642.52	0.00067	18.25	18.25	0	PERIOD	ALL	43680
N_Ind74	637838.94	4278667.52	0.00071	18.47	18.47	0	PERIOD	ALL	43680
N_Ind75	637838.94	4278692.52	0.00078	18.47	18.47	0	PERIOD	ALL	43680
N_Ind76	637838.94	4278717.52	0.00087	18.4	18.4	0	PERIOD	ALL	43680
N_Ind77	637838.94	4278742.52	0.00103	18.48	18.48	0	PERIOD	ALL	43680
N_Ind78	637838.94	4278767.52	0.00133	18.7	18.7	0	PERIOD	ALL	43680
N_Ind79	637863.94	4278642.52	0.00063	18.37	18.37	0	PERIOD	ALL	43680
N_Ind80	637863.94	4278667.52	0.00067	18.53	18.53	0	PERIOD	ALL	43680
N_Ind81	637863.94	4278692.52	0.00074	18.55	18.55	0	PERIOD	ALL	43680
N_Ind82	637863.94	4278717.52	0.00084	18.54	18.54	0	PERIOD	ALL	43680
N_Ind83	637863.94	4278742.52	0.001	18.57	18.57	0	PERIOD	ALL	43680
N_Ind84	637863.94	4278767.52	0.0013	18.77	18.77	0	PERIOD	ALL	43680
N_Ind85	637888.94	4278642.52	0.0006	18.28	18.28	0	PERIOD	ALL	43680
N_Ind86	637888.94	4278667.52	0.00065	18.43	18.43	0	PERIOD	ALL	43680
N_Ind87	637888.94	4278692.52	0.00071	18.51	18.51	0	PERIOD	ALL	43680
N_Ind88	637888.94	4278717.52	0.00081	18.56	18.56	0	PERIOD	ALL	43680
N_Ind89	637888.94	4278742.52	0.00098	18.57	18.57	0	PERIOD	ALL	43680
N_Ind90	637888.94	4278767.52	0.00127	18.67	18.67	0	PERIOD	ALL	43680
	637604.83	4278614.5	0.00277	18.32	18.32	1.8	PERIOD	ALL	43680
	637705.86	4278616.23	0.00188	18.28	18.28	1.8	PERIOD	ALL	43680
	637708.87	4278420	0.00326	16.26	16.26	1.8	PERIOD	ALL	43680
	637608.5	4278420	0.00381	16.49	16.49	1.8	PERIOD	ALL	43680

PROJECT TITLE:

DPM Period Contour



COMMENTS:

SOURCES:

12

RECEPTORS:

273

OUTPUT TYPE:

Concentration

MAX:

4.8E-03 ug/m^3

DATE:

10/31/2022

SCALE: 1:5,000

0 0.1 km

PROJECT NO.:

Appendix C

HARP2 Output Files

HARP2 - HRACalc (dated 22118) 11/1/2022 9:52:23 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: HighEnd

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 5
Total Exposure Duration: 9

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 9
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|DBRs changed|
Calculating cancer risk
Cancer risk saved to: C:\Users\AMBIENT Air\Desktop\New folder\School CancerRisk.csv
Calculating chronic risk
Chronic risk saved to: C:\Users\AMBIENT Air\Desktop\New folder\School NCChronicRisk.csv
Calculating acute risk
Acute risk saved to: C:\Users\AMBIENT Air\Desktop\New folder\School NCAcuteRisk.csv
HRA ran successfully

*HARP - HRACalc v22118 11/1/2022 9:52:23 AM - Cancer Risk - Input File: C:\Users\AMBIENT Air\Desktop\New folder\School HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK
1			9901	DieselExhPM	0.0034	7.19E-07	9YrCancerHighEnd_Inh	*	7.19E-07

*HARP - HRACalc v22118 11/1/2022 9:52:23 AM - Chronic Risk - Input File: C:\Users\AMBIENT Air\Desktop\New folder\School HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL	DETAILS
1			9901	DieselExhP	0.0034	NonCancerChronicHighEnd_Inh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	*

INH_CONC	SOIL_DOSE	DERMAL_DOSE	MMILK_DOSE	WATER_DOSE	FISH_DOSE	CROP_DOSE	BEEF_DOSE	DAIRY_DOSE	PIG_DOSE	CHICKEN_DOSE	EGG_DOSE	1ST_DRIVER	2ND_DRIVER	3RD_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
3.40E-03	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	INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v22118 11/1/2022 9:52:23 AM - Acute Risk - Input File: C:\Users\AMBIENT Air\Desktop\New folder\School HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL
	1		9901	DieselExhPM	0.15808	NonCancerAcute	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

HARP2 - HRACalc (dated 22118) 11/2/2022 2:35:45 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: HighEnd

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 30

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 14
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: ON
16 years to 70 years: OFF

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

****
TIER 2 SETTINGS
Tier2 not used.

****

Calculating cancer risk
Cancer risk saved to: C:\Users\AMBIENT Air\Desktop\New folder\Residential 95thCancerRisk.csv
Calculating chronic risk
Chronic risk saved to: C:\Users\AMBIENT Air\Desktop\New folder\Residential 95thNCChronicRisk.csv
Calculating acute risk
Acute risk saved to: C:\Users\AMBIENT Air\Desktop\New folder\Residential 95thNCAcuteRisk.csv
HRA ran successfully

*HARP - HRACalc v22118 11/2/2022 2:35:45 PM - Cancer Risk - Input File: C:\Users\AMBIENT Air\Desktop\New folder\Residential 95thHRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK
1			9901	DieselExhPM	0.00413	2.89E-06	30YrCancerHighEnd_InhSoilDermMMilk_FAH3to16	*	2.89E-06

*HARP - HRACalc v22118 11/2/2022 2:35:45 PM - Chronic Risk - Input File: C:\Users\AMBIENT Air\Desktop\New folder\Residential 95thHRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL	DETAILS
	1		9901	DieselExhPM	0.00413	NonCancerChronicHighEnd_InhSoilDermMMilk	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	*

POLID	POLABBREV	CONC	SCENARIO	INH_CONC	SOIL_DOSE	DERMAL_DOSE	MMILK_DOSE	WATER_DOSE	FISH_DOSE	CROP_DOSE	BEEF_DOSE	DAIRY_DOSE	PIG_DOSE	CHICKEN_DOSE	EGG_DOSE	1ST_DRIVER	2ND_DRIVER	3RD_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
9901	DieselExhPM	0.00413	NonCancerChronicHighEnd_InhSoilDermMMilk	4.13E-03	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	INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v22118 11/2/2022 2:35:45 PM - Acute Risk - Input File: C:\Users\AMBIENT Air\Desktop\New folder\Residential 95thHRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL
	1		9901	DieselExhPM	0.23226	NonCancerAcute	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

HARP2 - HRACalc (dated 22118) 11/2/2022 2:37:10 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: All
Calculation Method: HighEnd

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16
Total Exposure Duration: 25

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 25

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

****
TIER 2 SETTINGS
Tier2 not used.

****

Calculating cancer risk
Cancer risk saved to: C:\Users\AMBIENT Air\Desktop\New folder\Worker 95thCancerRisk.csv
Calculating chronic risk
Chronic risk saved to: C:\Users\AMBIENT Air\Desktop\New folder\Worker 95thNCChronicRisk.csv
Calculating acute risk
Acute risk saved to: C:\Users\AMBIENT Air\Desktop\New folder\Worker 95thNCAcuteRisk.csv
HRA ran successfully

*HARP - HRACalc v22118 11/2/2022 2:37:10 PM - Cancer Risk - Input File: C:\Users\AMBIENT Air\Desktop\New folder\Worker 95thHRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK
1			9901	DieselExhPM	0.00479	2.96E-07	25YrCancerHighEnd_InhSoilDerm	*	2.96E-07

*HARP - HRACalc v22118 11/2/2022 2:37:10 PM - Chronic Risk - Input File: C:\Users\AMBIENT Air\Desktop\New folder\Worker 95thHRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE\	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL	DETAILS
	1		9901	DieselExhPl	0.00479	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.58E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	*

INH_CONC	SOIL_DOSE	DERMAL_DOSE	MMILK_DOSE	WATER_DOSE	FISH_DOSE	CROP_DOSE	BEEF_DOSE	DAIRY_DOSE	PIG_DOSE	CHICKEN_DOSE	EGG_DOSE	1ST_DRIVER	2ND_DRIVER	3RD_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
4.79E-03	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	INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v22118 11/2/2022 2:37:10 PM - Acute Risk - Input File: C:\Users\AMBIENT Air\Desktop\New folder\Worker 95thHRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL
	1		9901	DieselExhPM	0.15848	NonCancerAcute	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

Appendix C. Special-status Species Database Search Results

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Project Code: 2022-0031715
Project Name: 2041 Rene Ave 21-021

April 13, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Project Code: 2022-0031715
Event Code: None
Project Name: 2041 Rene Ave 21-021
Project Type: Commercial Development
Project Description: Pre-construction surveys
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.64438765,-121.41818355824316,14z

Counties: Sacramento County, California

Endangered Species Act Species

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Reptiles

NAME	STATUS
Giant Garter Snake *Thamnophis gigas*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4482

Amphibians

NAME	STATUS
California Tiger Salamander *Ambystoma californiense*	Threatened

Population: U.S.A. (Central CA DPS)
There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/2076

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus*	Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/321

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Area West Environmental, Inc.
Name: Becky Rozumowicz
Address: 6248 Main Avenue, Suite C
City: Orangevale
State: CA
Zip: 95662
Email frontdesk@areawest.net
Phone: 9169873362

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Rio Linda (3812164))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Boggs Lake hedge-hyssop *Gratiola heterosepala*	PDSCR0R060	None	Endangered	G2	S2	1B.2
burrowing owl *Athene cunicularia*	ABNSB10010	None	None	G4	S3	SSC
California linderiella *Linderiella occidentalis*	ICBRA06010	None	None	G2G3	S2S3	
dwarf downingia *Downingia pusilla*	PDCAM060C0	None	None	GU	S2	2B.2
giant gartersnake *Thamnophis gigas*	ARADB36150	Threatened	Threatened	G2	S2	
great blue heron *Ardea herodias*	ABNGA04010	None	None	G5	S4	
great egret *Ardea alba*	ABNGA04040	None	None	G5	S4	
legenere *Legenere limosa*	PDCAM0C010	None	None	G2	S2	1B.1
Northern Claypan Vernal Pool *Northern Claypan Vernal Pool*	CTT44120CA	None	None	G1	S1.1	
Northern Hardpan Vernal Pool *Northern Hardpan Vernal Pool*	CTT44110CA	None	None	G3	S3.1	
purple martin *Progne subis*	ABPAU01010	None	None	G5	S3	SSC
Sanford's arrowhead *Sagittaria sanfordii*	PMALI040Q0	None	None	G3	S3	1B.2
song sparrow ("Modesto" population) *Melospiza melodia pop. 1*	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
steelhead - Central Valley DPS *Oncorhynchus mykiss irideus pop. 11*	AFCHA0209K	Threatened	None	G5T2Q	S2	
stinkbells *Fritillaria agrestis*	PMLIL0V010	None	None	G3	S3	4.2
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S3	
tricolored blackbird *Agelaius tricolor*	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
vernal pool fairy shrimp *Branchinecta lynchi*	ICBRA03030	Threatened	None	G3	S3	
vernal pool tadpole shrimp *Lepidurus packardi*	ICBRA10010	Endangered	None	G4	S3S4	
western pond turtle *Emys marmorata*	ARAAD02030	None	None	G3G4	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
western ridged mussel *Gonidea angulata*	IMBIV19010	None	None	G3	S1S2	
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
white-tailed kite *Elanus leucurus*	ABNKC06010	None	None	G5	S3S4	FP

Record Count: 23

Search Results

15 matches found. Click on scientific name for details

Search Criteria: CRPR is one of [**1A:1B:2A:2B:3:4**] , 9-Quad include [**3812163:3812173:3812153:3812155:3812165:3812164:3812174:3812175:3812154**]

▲ SCIENTIFIC NAME	COMMON NAME	BLOOMING PERIOD	FED LIST	STATE LIST	STATE RANK	CA RARE PLANT RANK
Astragalus tener var. *ferrisiae*	Ferris' milk-vetch	Apr-May	None	None	S1	1B.1
Balsamorhiza macrolepis	big-scale balsamroot	Mar-Jun	None	None	S2	1B.2
Brodiaea rosea ssp. *vallicola*	valley brodiaea	Apr-May(Jun)	None	None	S3	4.2
Centromadia parryi ssp. *rudis*	Parry's rough tarplant	May-Oct	None	None	S3	4.2
Chloropyron molle ssp. *hispidum*	hispid salty bird's-beak	Jun-Sep	None	None	S1	1B.1
Downingia pusilla	dwarf downingia	Mar-May	None	None	S2	2B.2
Fritillaria agrestis	stinkbells	Mar-Jun	None	None	S3	4.2
Gratiola heterosepala	Boggs Lake hedge-hyssop	Apr-Aug	None	CE	S2	1B.2
Hibiscus lasiocarpos var. *occidentalis*	woolly rose-mallow	Jun-Sep	None	None	S3	1B.2
Juncus leiospermus var. *ahartii*	Ahart's dwarf rush	Mar-May	None	None	S1	1B.2
Juncus leiospermus var. *leiospermus*	Red Bluff dwarf rush	Mar-Jun	None	None	S2	1B.1
Legenere limosa	legenere	Apr-Jun	None	None	S2	1B.1
Orcuttia viscida	Sacramento Orcutt grass	Apr-Jul(Sep)	FE	CE	S1	1B.1
Sagittaria sanfordii	Sanford's arrowhead	May-Oct(Nov)	None	None	S3	1B.2
Symphyotrichum lentum	Suisun Marsh aster	(Apr)May-Nov	None	None	S2	1B.2

Showing 1 to 15 of 15 entries

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2022. Rare Plant Inventory (online edition, v9-01 1.5). Website https://www.rareplants.cnps.org [accessed 3 August 2022].

Appendix D. ~~VMT Analysis~~Noise Impact Assessment

NOISE IMPACT ASSESSMENT

FOR

ELITE TRUCK REPAIR FACILITY PROJECT

2041 RENE AVENUE

SACRAMENTO, CA

MAY 2023

PREPARED BY:

AMBIENT
AIR QUALITY & NOISE CONSULTING

75 HIGUERA STREET, SUITE 105
SAN LUIS OBISPO, CA 93401
TEL/FAX: 805.226.2727

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

This report was prepared for the purpose of documenting potential on-site health risks associated with the proposed Elite Truck Repair Project, located at 2041 Rene Avenue, APN: 238-0150-002. The project includes the development of a heavy-duty truck repair facility located adjacent to and north of Rene Avenue.

PROPOSED PROJECT SUMMARY

The owners of the parcel, Elite Truck Repair LLC, propose to construct a new truck service facility to provide minor truck service, truck parking, warehouse space, and administrative office space. The project is being designed to provide service to electric powered trucks. The proposed truck service building is approximately 20,850 square feet and includes: a pre-engineered metal building combined with an office standard metal frame; five service bays for minor repairs and service; a warehouse; truck driver and mechanic locker rooms, visiting trucker lounge and laundry; parts storage, storage area; administrative offices; and a dispatch office. The site would provide truck maintenance service, oil changes, brake service, alignments, and tire changes. Photovoltaic solar panels will be mounted on a "cool" roof. No emergency generators would be required for the facility. Maps depicting the project vicinity and project location are presented in Figure 1 and Figure 2, respectively. The proposed project site is depicted in Figure 3 and the proposed site plan is depicted in Figure 4.

The business would be operational 5 days a week, Monday through Friday from 6:00 a.m. to 5:00 p.m., and would employ the use of a forklift and an air compressor.

ACOUSTIC FUNDAMENTALS

Noise is generally defined as sound that is loud, disagreeable, or unexpected. Sound, as described in more detail below, is mechanical energy transmitted in the form of a wave because of a disturbance or vibration.

AMPLITUDE

Amplitude is the difference between ambient air pressure and the peak pressure of the sound wave. Amplitude is measured in decibels (dB) on a logarithmic scale as discussed below. Amplitude is interpreted by the ear as corresponding to different degrees of loudness. Laboratory measurements have determined that a 10 dB increase in amplitude correlates with a perceived doubling of loudness and a 3 dB change in amplitude is the minimum audible difference perceptible to the average person.

FREQUENCY

Frequency is the number of fluctuations of the pressure wave per second. The unit of frequency is Hertz (Hz). One Hz equals one cycle per second. The human ear is not equally sensitive to sound of different frequencies. Sound waves below 16 Hz or above 20,000 Hz cannot be heard at all, and the ear is more sensitive to sound in the higher portion of this range than in the lower. To approximate this sensitivity, environmental sound is usually measured in A-weighted decibels (dBA). On this scale, the normal range of human hearing extends from about 10 dBA to about 140 dBA.

ADDITION OF DECIBELS

Because decibels are logarithmic units, sound levels cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one automobile produces a sound level of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB; rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together would produce an increase of 5 dB.

FIGURE 1.PROPOSED PROJECT VICINITY

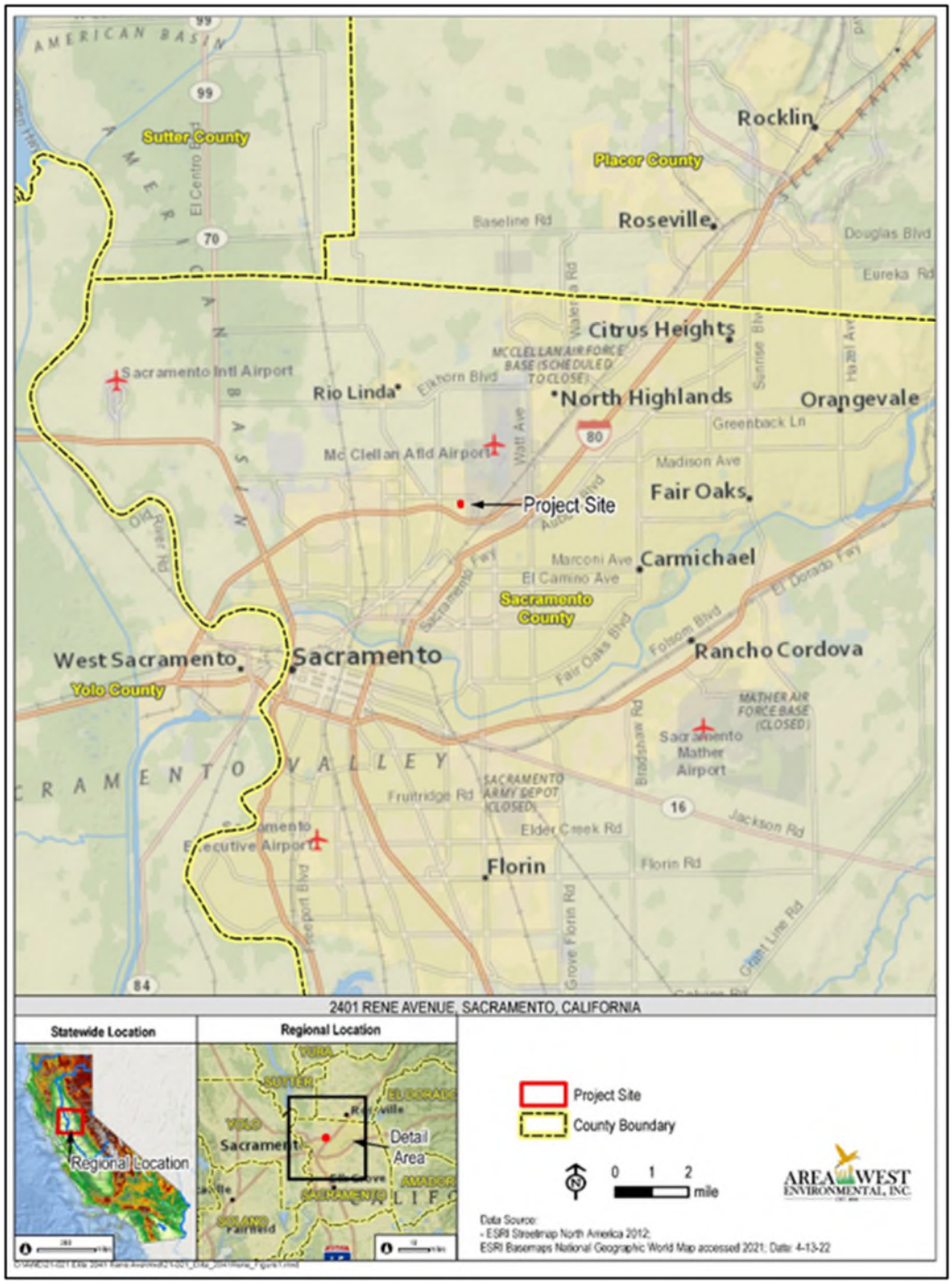


FIGURE 2. PROPOSED PROJECT LOCATION

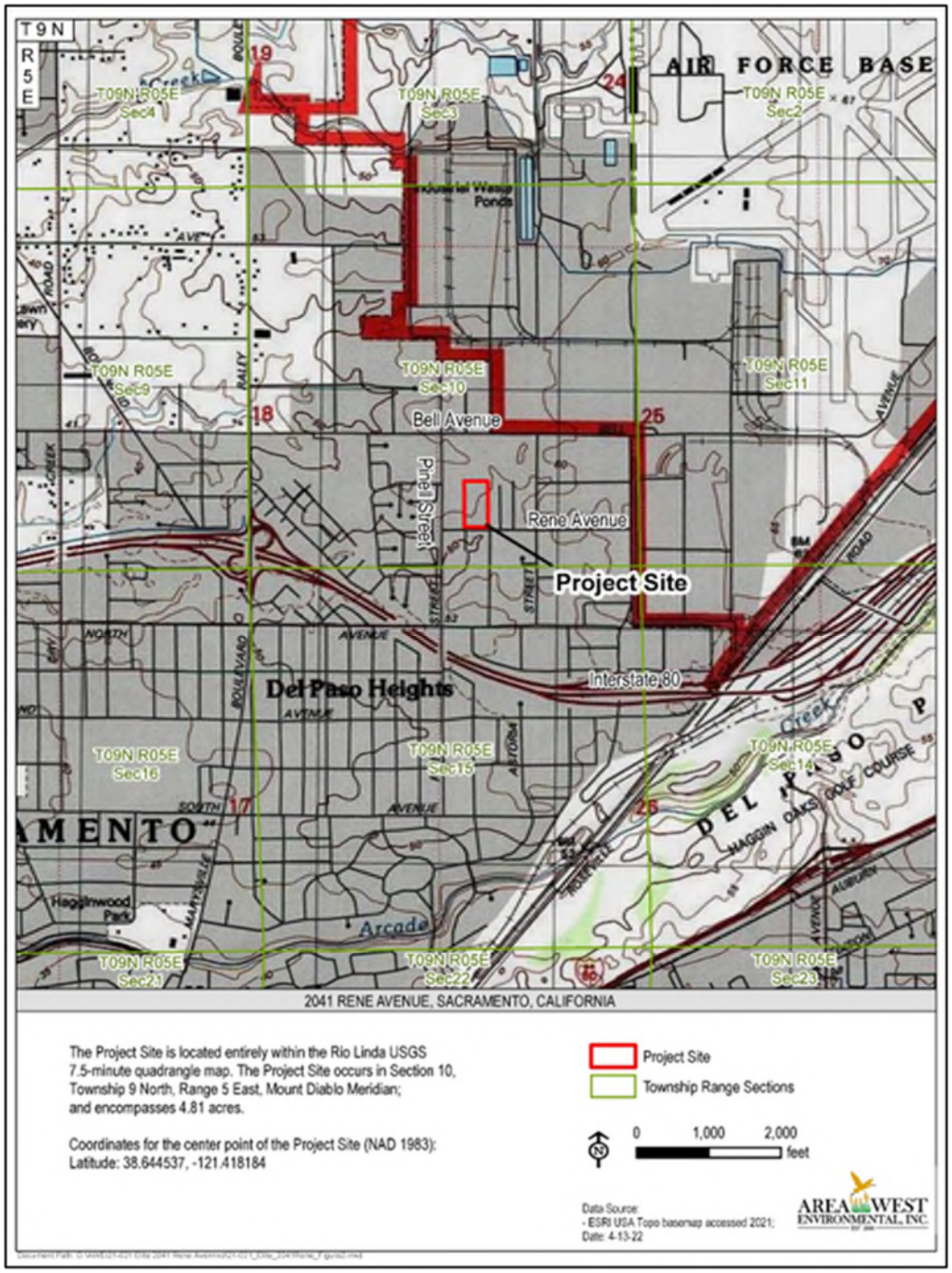
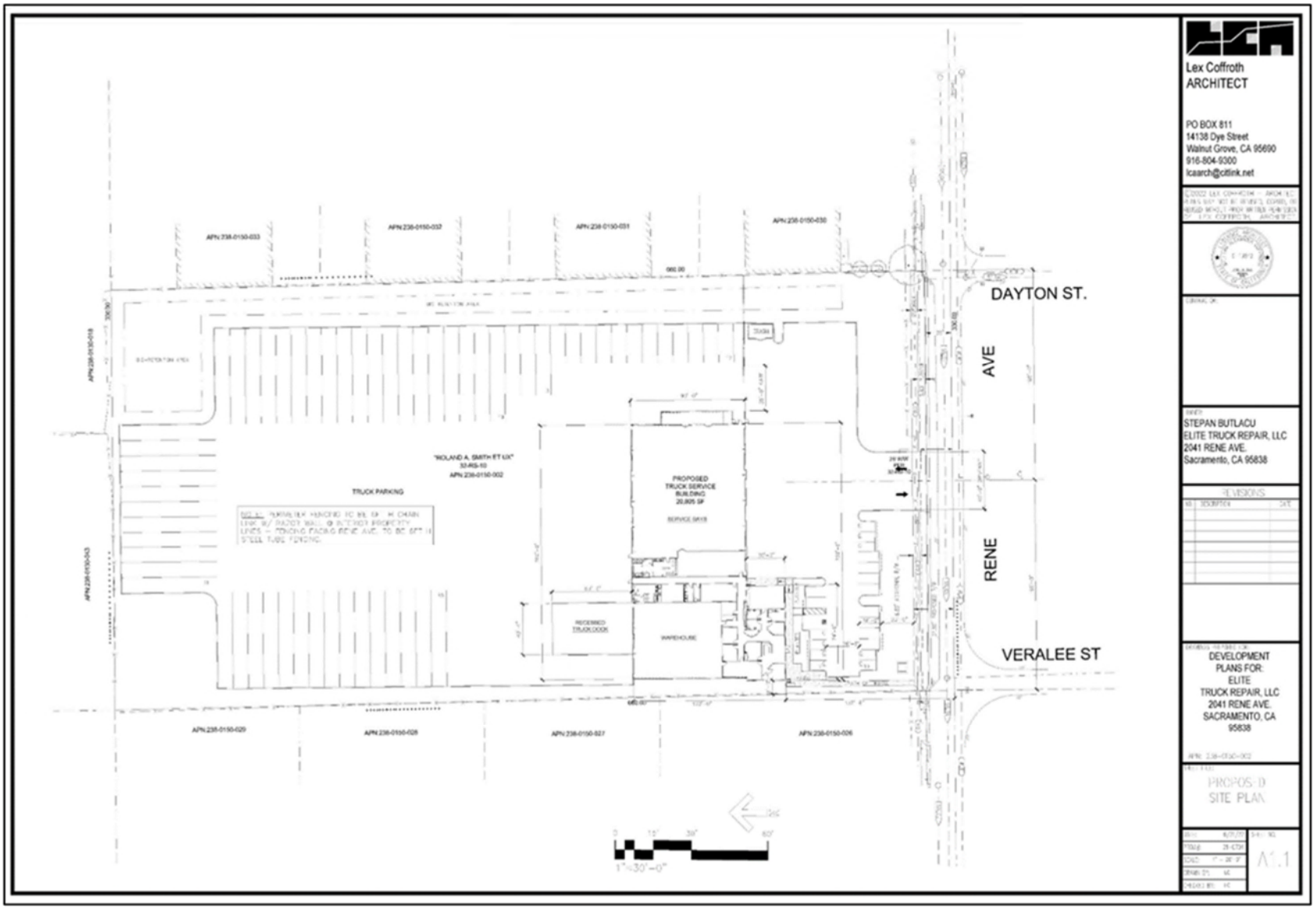


FIGURE 3. PROPOSED PROJECT SITE

FIGURE 4. PROPOSED SITE PLAN



SOUND PROPAGATION & ATTENUATION

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path, and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, depending on ground surface characteristics. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water,), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between a line source and the receiver, such as soft dirt, grass, or scattered bushes and trees), an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation for soft surfaces results in an overall attenuation rate of 4.5 dB per doubling of distance from a line source.

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receiver specifically to reduce noise. A barrier that breaks the line of sight between a source and a receiver will typically result in an approximately 5 dB of noise reduction. Taller barriers provide increased noise reduction. Intervening buildings can reduce noise levels by as much as approximately 15 dB.

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. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the sound-pressure level in that range. In general, people are most sensitive to the frequency range of 1,000 to 8,000 Hz, and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies, which is referred to as the "A-weighted" sound level (expressed in units of dBA). The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments about the relative loudness or annoyance of a sound, their judgments correlate well with the A-weighted noise scale. Other weighting networks have been devised to address high noise levels or other special problems (e.g., B-, C-, and D-scales), but these scales are rarely used in conjunction with environmental noise. In addition, the intensity of environmental noise fluctuates over time, and several descriptors of time-averaged noise levels are typically used. Common noise descriptors used in this analysis are summarized in Table 1.

TABLE 1. COMMON ACOUSTICAL TERMS AND DESCRIPTORS

Descriptor	Definition
Decibel (dB)	A unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to referenced sound pressure amplitude. The reference pressure is 20 micro-pascals.
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
Energy Equivalent Noise Level (L_{eq})	The energy mean (average) noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value (in dBA) is calculated.
Maximum Noise Level (L_{max})	The maximum instantaneous noise level during a specific period of time.

REGULATORY FRAMEWORK

CITY OF SACRAMENTO NOISE ORDINANCE

The City of Sacramento has adopted noise ordinances that contain limitations intended to prevent noise that may create dangerous, injurious, noxious, or otherwise objectionable conditions. These standards are to be applied at any point on a residential or agricultural property, such as rear yards, that are intended to accommodate leisure or active use. The City's noise standards are summarized in Table 2. As depicted, average-hourly noise levels are limited to 55 dBA L_{eq} during the daytime hours (7:00 a.m. to 10:00 p.m.) and 50 dBA L_{eq} during the nighttime hours (10:00 p.m. to 7:00 a.m.).

TABLE 2. CITY OF SACRAMENTO EXTERIOR NOISE STANDARDS

Noise Level Descriptor	Noise Level (dBA)	
	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Average-Hourly Noise Level (L_{eq})	55	50
Note: Each of the noise levels specified shall be lowered by five dB for simple tone noises, noises consisting primarily of speech, or music. *Source: City of Sacramento 2023*		

AMBIENT NOISE ENVIRONMENT

NOISE-SENSITIVE LAND USES

Noise-sensitive receptors in the project area consist predominantly of residential dwellings located to the east, west, and south of the project site. The nearest residential-use property line is located approximately 215 feet south of the proposed project, across Rene Avenue. In addition, Bell Avenue Elementary School is located northwest of the project site, at the intersection of Bell Avenue and Pinell Street. Nearby noise-sensitive land uses are depicted in Figure 3. Proposed Project Site.

NOISE IMPACT ASSESSMENT

METHODOLOGY

Operational noise levels associated with the proposed truck repair facility were calculated based on the noise levels associated with the operation of pneumatic tools and air compressors, which is the loudest equipment anticipated to be used onsite. Operational noise levels at nearby land uses were calculated using the SoundPlan, version 8.2, computer program and assuming an average operational noise level of 96 dBA L_{eq} at 10 feet (FHWA 2023). Predicted noise levels take into account intervening structures and terrain. Modeled receivers were placed at the nearest property lines of residential land uses.

PREDICTED NOISE LEVELS

Predicted operational noise levels and contours associated with the proposed project are summarized in Table 1Table 3 and are depicted in Figure 5. As depicted in Table 3, predicted operational noise levels at the property line of residential land uses would range from approximately 43 to 66 dBA L_{eq}. Predicted operational noise levels at nearby residential land uses (R2 and R4) would exceed the City's daytime noise standard of 55 dBA L_{eq}. Additionally, predicted operational noise levels at nearby residential land uses (R1, R2, R4, and R6) would exceed the City's nighttime noise standard of 45 dBA L_{eq}. Predicted daytime operational noise levels at Bell Avenue Elementary School would not exceed the City's daytime noise standard.

TABLE 3. PREDICTED EXTERIOR OPERATIONAL NOISE LEVELS AT NEARBY NOISE-SENSITIVE LAND USES WITHOUT RECOMMENDED MITIGATION MEASURES

Receiver	Land Use Type	Project Noise Level (dBA L_{eq})	Exceeds Noise Standard?	
			Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
R1	Residential	51.5	No	**Yes**
R2	Residential	56.3	**Yes**	**Yes**
R3	Residential	43.0	No	No
R4	Residential	66.0	**Yes**	**Yes**
R5	Residential	41.6	No	No
R6	Residential	54.6	No	**Yes**

Based on City of Sacramento daytime and nighttime noise standards of 55 and 50 dBA Leq, respectively (refer to Table 2).
Refer to Figure 5 for modeled receiver locations and predicted noise contours.

RECOMMENDED MITIGATION MEASURES

The following mitigation measures are recommended:

1. Truck service bay doors shall not be constructed along the southern building façade.
2. A 6-foot-tall noise barrier (PB1) shall be constructed along the western property line extending from the building façade northward to an approximate length of 180 feet. The barrier shall be constructed of masonry block or material of similar density and usage with no visible air gaps at the base of the barrier or between barrier construction materials (refer to Figure 6 for recommended noise barrier locations).
3. A 10-foot-tall noise barrier (PB2) shall be constructed along the eastern property line to an approximate length of 245 feet. The barrier shall be constructed of masonry block or material of similar density and usage with no visible air gaps at the base of the barrier or between barrier construction materials (refer to Figure 6 for recommended noise barrier locations).
4. Air compressors shall be fully enclosed (e.g., placed within an equipment storage room).
5. Operation of the truck repair facility shall be limited to the daytime hours of 7:00 a.m. and 10:00 p.m.

SIGNIFICANCE AFTER MITIGATION

Predicted noise levels, with recommended mitigation measures, are summarized in Table 4 and depicted in Figure 6. As depicted in Table 4, predicted operational noise levels at the property line of residential land uses would range from approximately 39 to 55 dBA L_{eq}. Predicted operational noise levels at nearby residential land uses would not exceed the City's daytime noise standard of 55 dBA L_{eq}. Implementation of Mitigation Measure 5 would limit truck bay operational activities to the daytime hours. With mitigation, predicted operational activities associated with the proposed truck repair facility would not exceed the City's daytime noise standard of 55 dBA L_{eq}.

TABLE 4. PREDICTED EXTERIOR OPERATIONAL NOISE LEVELS AT NEARBY NOISE-SENSITIVE LAND USES WITH RECOMMENDED MITIGATION MEASURES

Receiver	Land Use Type	Project Noise Level (dBA L_{eq})	Exceeds Daytime Noise Standard?
R1	Residential	48.9	No
R2	Residential	54.7	No
R3	Residential	42.9	No
R4	Residential	48.7	No
R5	Residential	38.7	No
R6	Residential	47.8	No

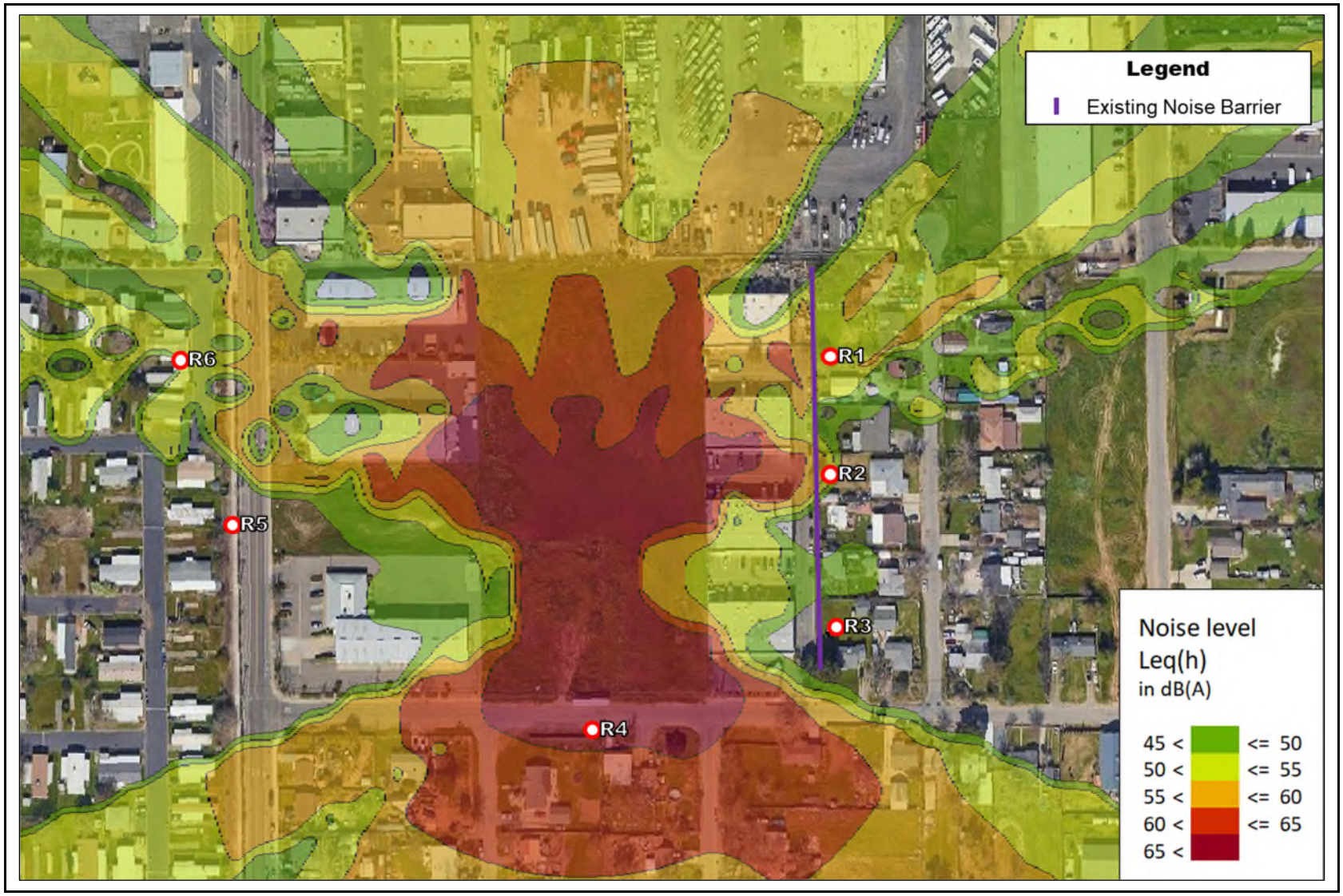
With recommended mitigation measures, operational activities would be limited to the daytime hours of 7:00 a.m. to 10:00 p.m.
Based on City of Sacramento daytime noise standard of 55 dBA Leq (refer to Table 2).
Refer to Figure 6 for modeled receiver locations and predicted noise contours.

SUMMARY OF FINDINGS & RECOMMENDATIONS

Based on the analysis conducted, operational noise levels would exceed the City's nighttime and daytime noise standards at nearby residential land uses. To minimize operational noise impacts to nearby land uses and to better ensure compliance with City noise standards, the following measures are recommended:

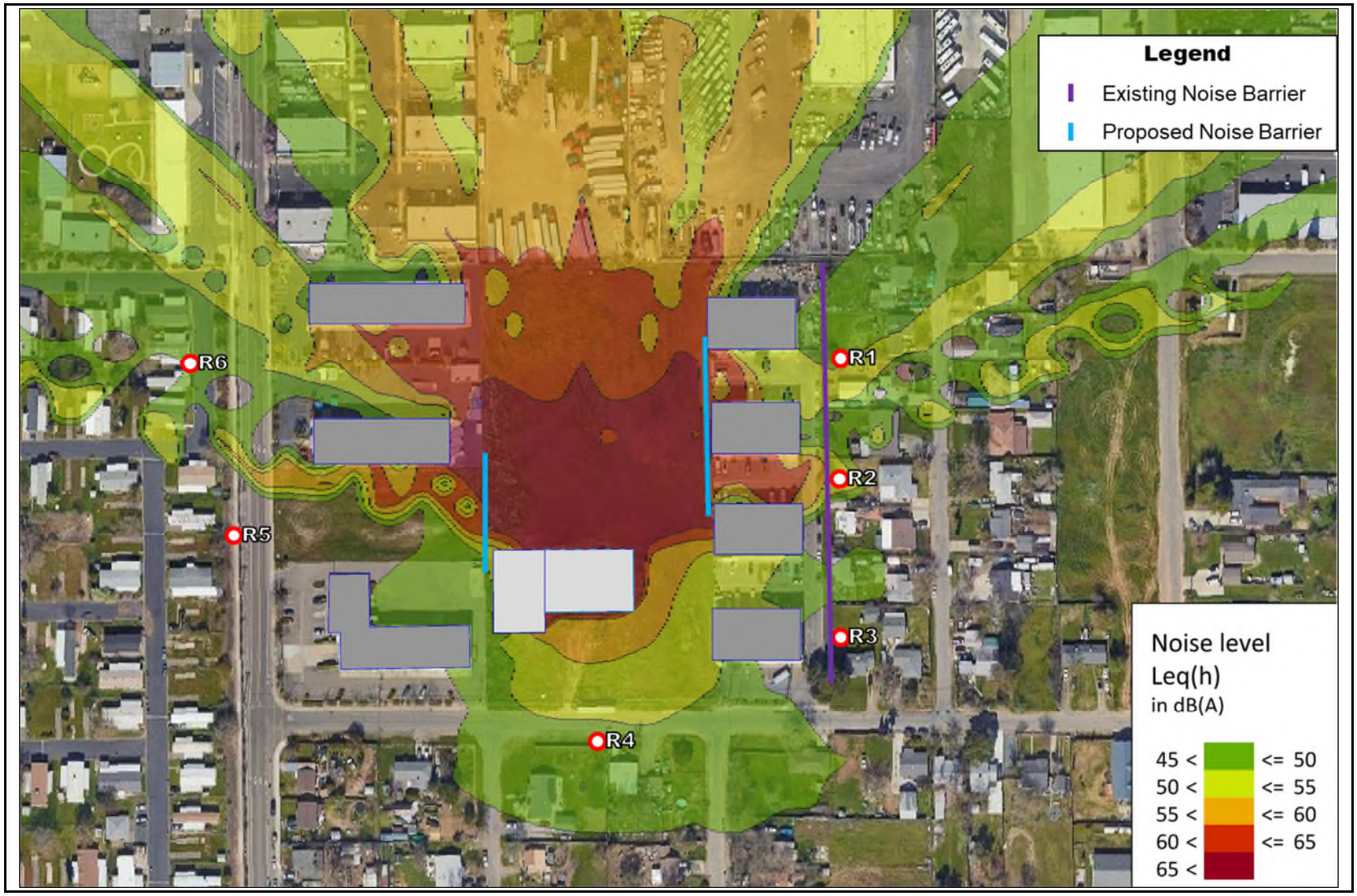
1. Truck service bay doors shall not be constructed along the southern building façade.
2. A 6-foot-tall noise barrier (PB1) shall be constructed along the western property line to an approximate length of 180 feet. The barrier shall be constructed of masonry block or material of similar density and usage with no visible air gaps at the base of the barrier or between barrier construction materials (refer to Figure 6 for recommended noise barrier locations).
3. A 10-foot-tall noise barrier (PB2) shall be constructed along the eastern property line to an approximate length of 245 feet. The barrier shall be constructed of masonry block or material of similar density and usage with no visible air gaps at the base of the barrier or between barrier construction materials (refer to Figure 6 for recommended noise barrier locations).
4. Air compressors shall be fully enclosed (e.g., placed within an equipment storage room).
5. Operation of the truck repair facility shall be limited to the daytime hours of 7:00 a.m. and 10:00 p.m.

FIGURE 5. PREDICTED OPERATIONAL NOISE LEVELS & NOISE CONTOURS WITHOUT RECOMMENDED MITIGATION MEASURES



Noise levels and contours were calculated using the SoundPlan computer program.

FIGURE 6. PREDICTED OPERATIONAL NOISE LEVELS & NOISE CONTOURS WITH RECOMMENDED MITIGATION MEASURES



Noise levels and contours were calculated using the SoundPlan computer program.

REFERENCES

City of Sacramento. Accessed March 2023. *Sacramento, California City Code, Tile 8 Health and Safety, Chapter 8.68 Noise Control*. Available at website url: https://library.qcode.us/lib/sacramento_ca/pub/city_code/item/title_8.

Federal Highway Administration (FHWA 2023). Accessed March 2023. *Roadway Construction Noise Model.* Available at website url: https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/.

Lex Coffroth Architect. June 2022. *Development Plans for Elite Truck Repair, LLC* (Site Plan Rev -1).

Appendix E. VMT Analysis

Kimley»Horn

Memorandum

To: Matthew Ilagan
City of Sacramento

From: Chris Gregerson, P.E., T.E., PTOE, PTP

Re: Elite Truck Repair
Vehicle Miles Traveled (VMT) Analysis

Date: October 11, 2022

In accordance with Task 2 of our Scope of Services, we are writing to summarize the Vehicle Miles Traveled (VMT) analysis completed for the proposed Elite Truck Repair facility (the "project" or "proposed project") in the City of Sacramento, CA. This memorandum summarizes the VMT analysis and resultant findings for the proposed Elite Truck Repair development project.

Project Description

Kimley-Horn understands that the project applicant is proposing to develop a currently vacant parcel into a new, 20,805 square-foot truck service facility located at 2041 Rene Avenue in Sacramento. The project location is shown in **Exhibit 1.** The project is expected to access the surrounding roadway network via Rene Avenue to the south of the project site which connects to Pinell Street to the west and Winters Street to the east as depicted in **Exhibit 2**.

Purpose of Analysis

Senate Bill 743 (2013) changed the focus of transportation impact analyses in CEQA from measuring impacts to drivers, to measuring the impact of driving. The change was made by replacing Level of Service (LOS) with VMT. This shift in transportation impact focus was intended to better align transportation impact analyses and mitigation outcomes with the State's goals to reduce greenhouse gas (GHG) emissions, encourage infill development, and improve public health through more active transportation. Level of service or other delay metrics may still be used to evaluate the impact of projects on drivers as part of land use entitlement review and impact fee programs.

In January 2019, the Natural Resources Agency finalized updates to the CEQA Guidelines including the incorporation of SB 743 modifications. The Guidelines' changes were approved by the Office of Administrative Law and are now in effect. The provisions apply statewide as of July 1, 2020.

To aid lead agencies with SB 743 implementation, the Governor's Office of Planning and Research (OPR) produced the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) that provides guidance regarding the variety of implementation questions they face with respect to shifting to a VMT metric. Key guidance from this document includes:

- VMT is the most appropriate metric to evaluate a project's transportation impact.
- OPR recommends tour- and trip-based travel models to estimate VMT, but ultimately defers to local agencies to determine the appropriate tools.
- OPR recommends measuring VMT for residential and office projects on a "per rate" basis.
- OPR states that by adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT.

Generally, retail development including stores smaller than 50,000 square feet might be considered local serving.
- Lead agencies have the discretion to set or apply their own significance thresholds.

The thresholds to consider for projects located within the City of Sacramento boundaries consider the VMT performance of residential and non-residential components of a project separately. For retail components of a project, or other customer-focused uses, the county-wide VMT effect is analyzed. The VMT thresholds of significance used for this analysis are summarized below for each of these components:

- Customer-based non-residential land uses (e.g., retail) – No net increase in VMT

Methodology and Assumptions

Based on the land use information provided, for the purposes of VMT analysis and the determination of transportation related significant impacts, the following land uses were analyzed:

- Retail

This designation was determined based on both the project description and how the project is defined in terms of Standard Industrial Classification (SIC) codes[1] and the North American Industry Classification System (NAICS) codes[2].

To determine whether the proposed project should be classified as an industrial project (employee-based land use using a VMT per employee efficiency metric) or a retail project (customer-based land use using the change in total VMT as the impact metric), the project description was used to help categorize the project using the SIC and NAICS codes.

The project is described as, "being designed to transition to provide service to electric powered trucks." In addition, a portion of the project is dedicated to, "truck driver and mechanic locker rooms, visiting trucker lounge and laundry." The project description and project component help identify the proposed project as predominantly providing repair services to trucks with most trips generated by the project coming from the customers' trucks being serviced. In comparison, trip generation for industrial uses is typically characterized as being based on the employee commute and activity trips rather than customer trips.

The SIC and NAICS codes associated with this project description were determined to be 7538 (General Automotive Repair Shops) and 811111 (General Automotive Repair), respectively. Examples provided for SIC Code 7538 include "Garages, general automotive repair and service" and "Truck engine repair, except industrial," while examples provided for NAICS Code 811111 include "General automotive repair shops" and "Truck repair shops, general." SIC Code 7538 falls under the "Services" category while NAICS Code 811111 falls under the "Other Services (except Public Administration)" category. For both the SIC and NAICS Code lists, industrial uses fall under separate categories such as "Manufacturing" (both), "Transportation and Warehousing" (NAICS), and "Transportation & Public Utilities" (SIC). Therefore, it can be concluded that the project is a retail project for the purposes of a VMT analysis.

[1] *SIC Codes Lookup – Standard Industrial Classification*. Accessed October 11, 2022. https://siccode.com/sic-code-lookup-directory

[2] *NAICS Codes Lookup – North American Industry Classification*. Accessed October 11, 2022. https://siccode.com/naics-code-lookup-directory

Analysis

The City of Sacramento has published its guidelines[3] for performing VMT analyses for proposed projects. Specifically, the guidelines provide a section for screening proposed projects to, "quickly determine whether a project may be presumed to have a less-than-significant VMT impact without conducting a detailed project generated VMT analysis." The first screening criteria provided is for small projects defined as, "projects with up to 10 single unit homes, projects with up to 15 multiple unit homes, retail projects up to 50,000 cumulative square feet, light industrial projects up to 20,000 square feet, and office projects up to 10,000 square feet." As this project is well under the 50,000 square-foot threshold for retail projects, according to the City's guidelines the project "may be assumed to cause a less-than significant transportation impact."

Conclusions

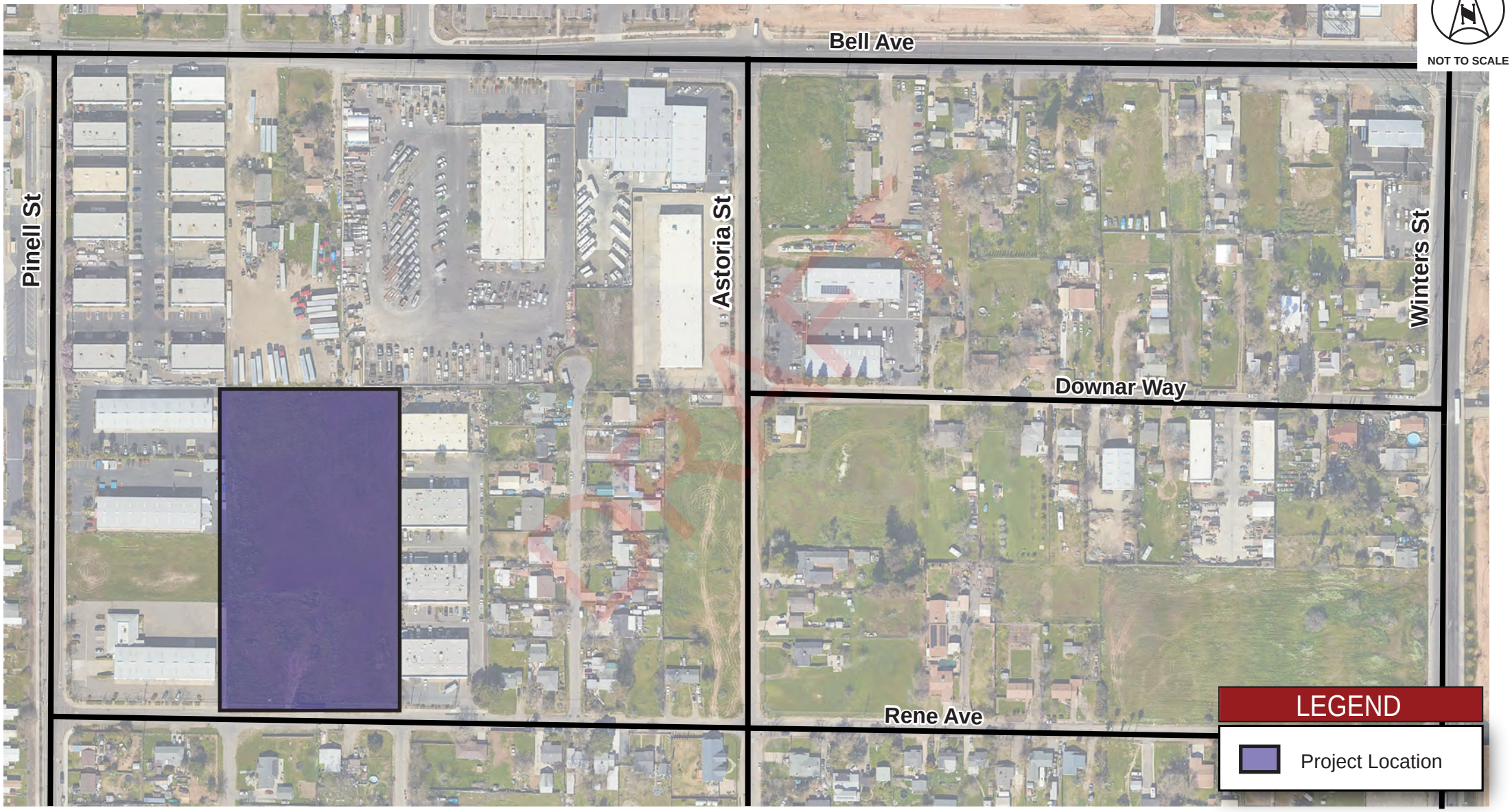
Based on the results of this analysis, the following conclusions are made:

- The project description and project component help identify the proposed project as predominantly providing repair services to trucks with most trips generated by the project coming from the customers' trucks being serviced. In addition, the SIC and NAICS codes associated with this project description were determined to be 7538 (General Automotive Repair Shops) and 811111 (General Automotive Repair), respectively. Therefore, it can be concluded that the project is a retail project for the purposes of a VMT analysis.
- As this project is well under the 50,000 square-foot threshold for retail projects, according to the City's guidelines the project "may be assumed to cause a less-than significant transportation impact." **Therefore, the proposed project is determined to not have a significant transportation impact for a retail development.**

Attachments:

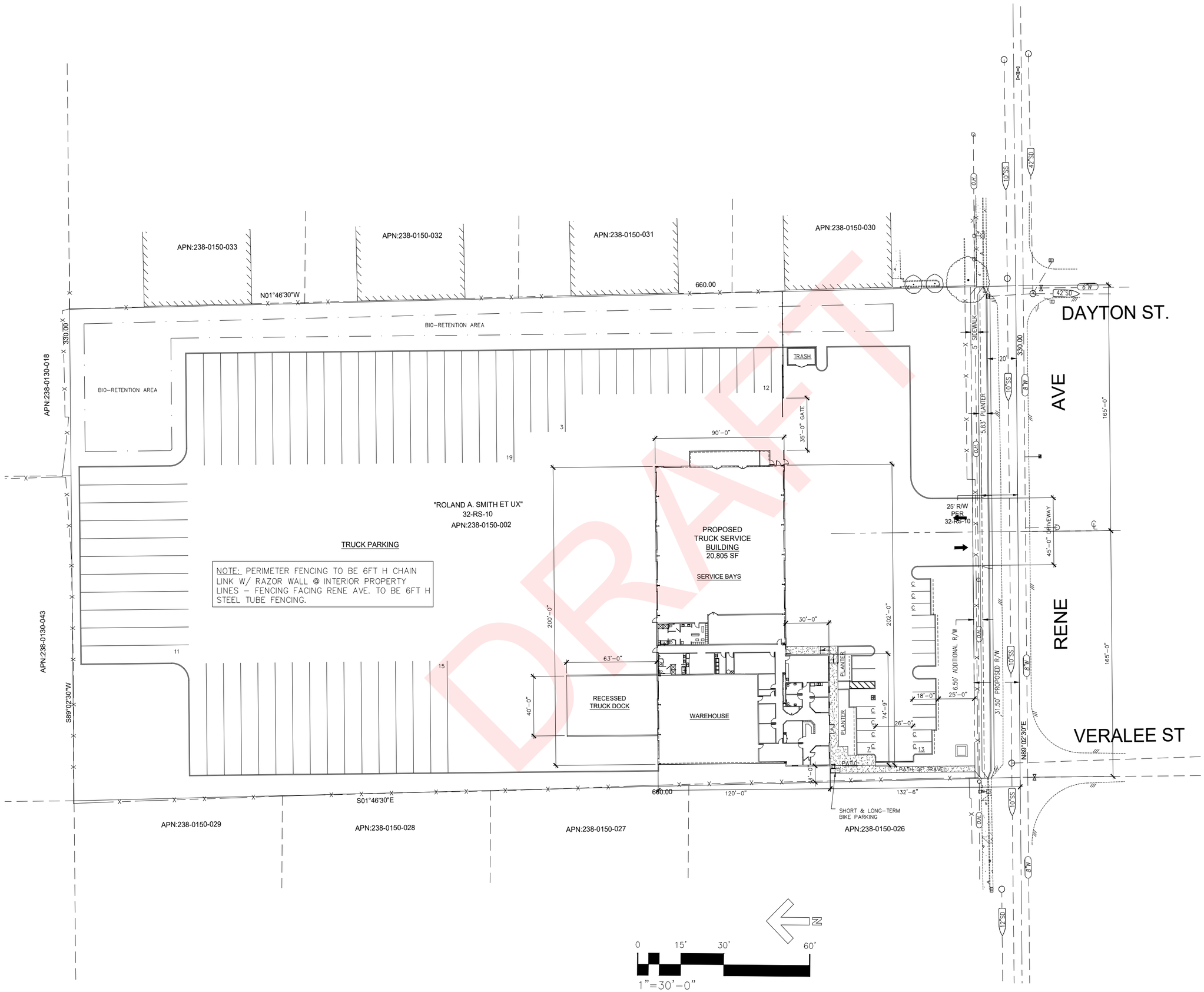
Exhibit 1 – Project Vicinity Map
Exhibit 2 – Project Site Plan

[3] *Transportation Impact Analysis Guidelines*. City of Sacramento. September 8, 2020.



Kimley»Horn

Exhibit 1
Project Vicinity Map



Lex Coffroth
ARCHITECT

PO BOX 811
14138 Dye Street
Walnut Grove, CA 95690
916-804-9300
lcaarch@citlink.net

LICENSED ARCHITECT
WILLIAM ALEXANDER COFFROTH
C-13842
STATE OF CALIFORNIA
APRIL 30, 2023
RENEWAL DATE

CONTRACTOR:

OWNER:
STEPAN BUTLACU
ELITE TRUCK REPAIR, LLC
2041 RENE AVE.
Sacramento, CA 95838

REVISIONS

NO.	DESCRIPTION	DATE
1	SITE PLAN REV - 1	6/23/22

DRAWINGS PREPARED FOR:
DEVELOPMENT
PLANS FOR:
ELITE
TRUCK REPAIR, LLC
2041 RENE AVE.
SACRAMENTO, CA
95838

APN: 238-0150-002

SHEET TITLE:
PROPOSED
SITE PLAN

DATE:	6/21/22
PROJ.#:	21-0704
SCALE:	1" = 20'-0"
DRAWN BY:	LC
CHECKED BY:	LC

SHEET NO.
A1.1

NOISE IMPACT ASSESSMENT

FOR

ELITE TRUCK REPAIR FACILITY PROJECT

2041 RENE AVENUE

SACRAMENTO, CA

MAY 2023

PREPARED BY:

AMBIENT
AIR QUALITY & NOISE CONSULTING

75 HIGUERA STREET, SUITE 105
SAN LUIS OBISPO, CA 93401
TEL/FAX: 805.226.2727

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

This report was prepared for the purpose of documenting potential on-site health risks associated with the proposed Elite Truck Repair Project, located at 2041 Rene Avenue, APN: 238-0150-002. The project includes the development of a heavy-duty truck repair facility located adjacent to and north of Rene Avenue.

PROPOSED PROJECT SUMMARY

The owners of the parcel, Elite Truck Repair LLC, propose to construct a new truck service facility to provide minor truck service, truck parking, warehouse space, and administrative office space. The project is being designed to provide service to electric powered trucks. The proposed truck service building is approximately 20,850 square feet and includes: a pre-engineered metal building combined with an office standard metal frame; five service bays for minor repairs and service; a warehouse; truck driver and mechanic locker rooms, visiting trucker lounge and laundry; parts storage, storage area; administrative offices; and a dispatch office. The site would provide truck maintenance service, oil changes, brake service, alignments, and tire changes. Photovoltaic solar panels will be mounted on a "cool" roof. No emergency generators would be required for the facility. Maps depicting the project vicinity and project location are presented in Figure 1 and Figure 2, respectively. The proposed project site is depicted in Figure 3 and the proposed site plan is depicted in Figure 4.

The business would be operational 5 days a week, Monday through Friday from 6:00 a.m. to 5:00 p.m., and would employ the use of a forklift and an air compressor.

ACOUSTIC FUNDAMENTALS

Noise is generally defined as sound that is loud, disagreeable, or unexpected. Sound, as described in more detail below, is mechanical energy transmitted in the form of a wave because of a disturbance or vibration.

AMPLITUDE

Amplitude is the difference between ambient air pressure and the peak pressure of the sound wave. Amplitude is measured in decibels (dB) on a logarithmic scale as discussed below. Amplitude is interpreted by the ear as corresponding to different degrees of loudness. Laboratory measurements have determined that a 10 dB increase in amplitude correlates with a perceived doubling of loudness and a 3 dB change in amplitude is the minimum audible difference perceptible to the average person.

FREQUENCY

Frequency is the number of fluctuations of the pressure wave per second. The unit of frequency is Hertz (Hz). One Hz equals one cycle per second. The human ear is not equally sensitive to sound of different frequencies. Sound waves below 16 Hz or above 20,000 Hz cannot be heard at all, and the ear is more sensitive to sound in the higher portion of this range than in the lower. To approximate this sensitivity, environmental sound is usually measured in A-weighted decibels (dBA). On this scale, the normal range of human hearing extends from about 10 dBA to about 140 dBA.

ADDITION OF DECIBELS

Because decibels are logarithmic units, sound levels cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one automobile produces a sound level of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB; rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together would produce an increase of 5 dB.

FIGURE 1.PROPOSED PROJECT VICINITY

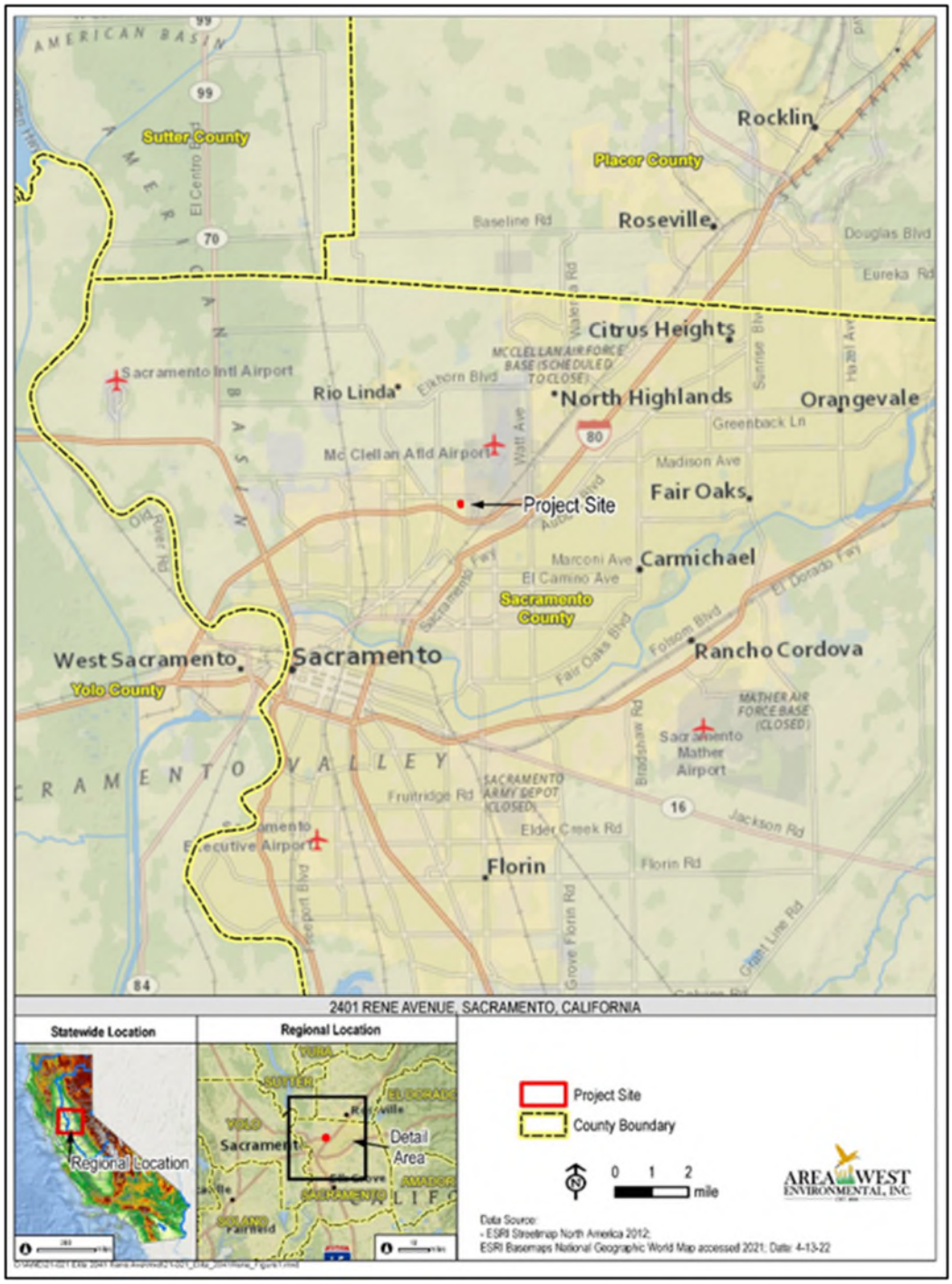
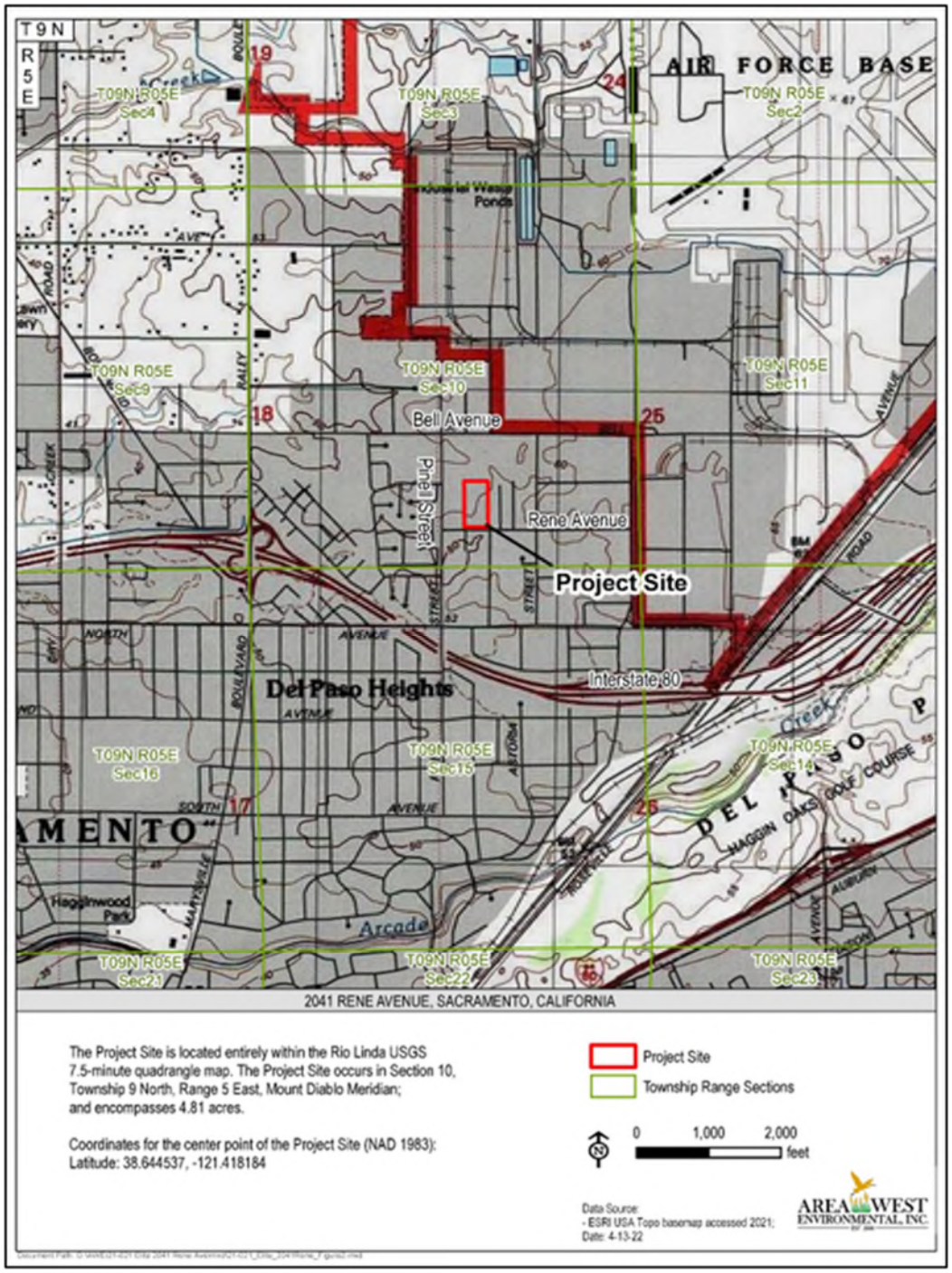


FIGURE 2. PROPOSED PROJECT LOCATION



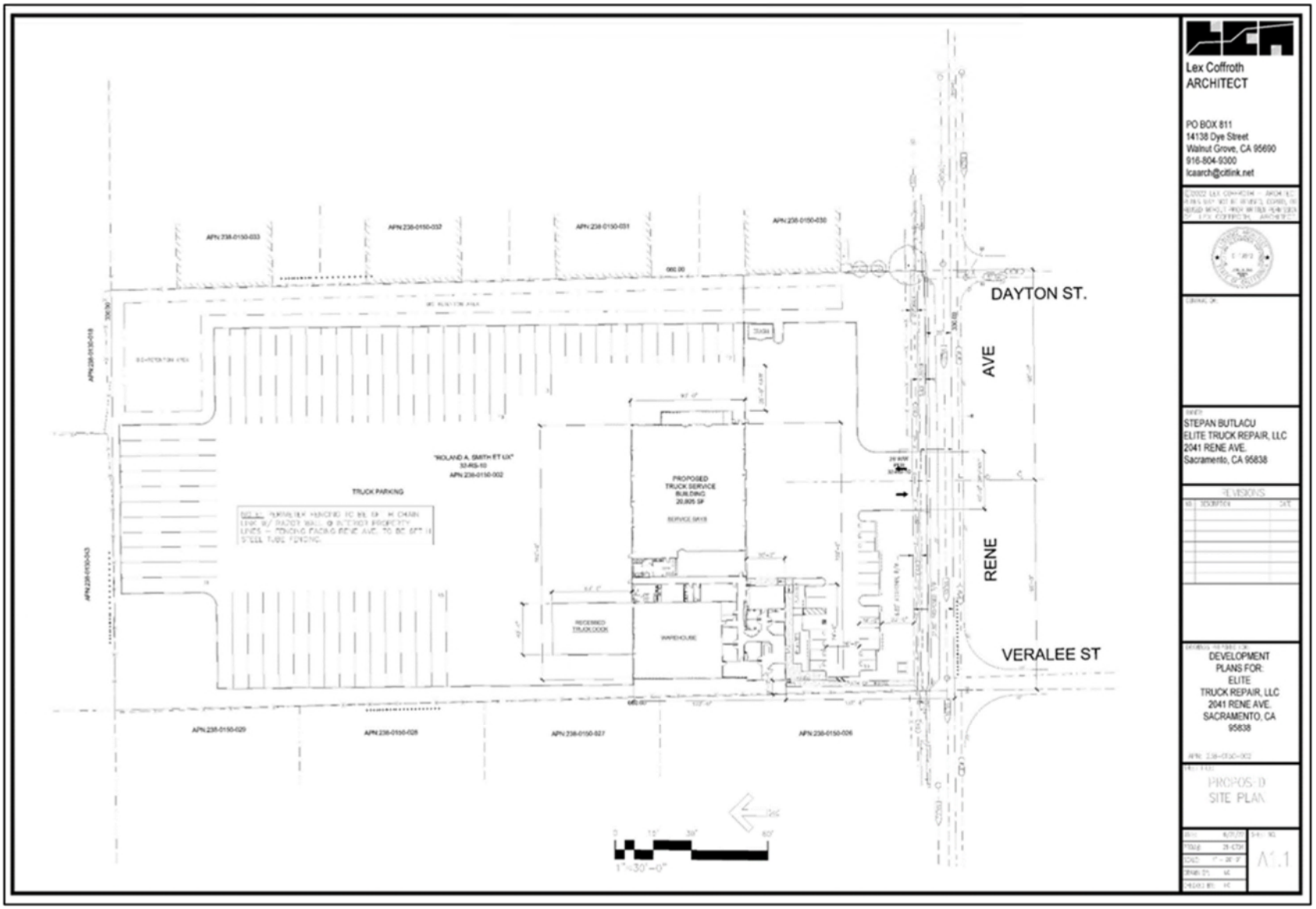
2041 RENE AVENUE, SACRAMENTO, CALIFORNIA

The Project Site is located entirely within the Rio Linda USGS 7.5-minute quadrangle map. The Project Site occurs in Section 10, Township 9 North, Range 5 East, Mount Diablo Meridian; and encompasses 4.81 acres.

Coordinates for the center point of the Project Site (NAD 1983):
Latitude: 38.644537, -121.418184

FIGURE 3. PROPOSED PROJECT SITE

FIGURE 4. PROPOSED SITE PLAN



SOUND PROPAGATION & ATTENUATION

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path, and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, depending on ground surface characteristics. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water,), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between a line source and the receiver, such as soft dirt, grass, or scattered bushes and trees), an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation for soft surfaces results in an overall attenuation rate of 4.5 dB per doubling of distance from a line source.

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receiver specifically to reduce noise. A barrier that breaks the line of sight between a source and a receiver will typically result in an approximately 5 dB of noise reduction. Taller barriers provide increased noise reduction. Intervening buildings can reduce noise levels by as much as approximately 15 dB.

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. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the sound-pressure level in that range. In general, people are most sensitive to the frequency range of 1,000 to 8,000 Hz, and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies, which is referred to as the "A-weighted" sound level (expressed in units of dBA). The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments about the relative loudness or annoyance of a sound, their judgments correlate well with the A-weighted noise scale. Other weighting networks have been devised to address high noise levels or other special problems (e.g., B-, C-, and D-scales), but these scales are rarely used in conjunction with environmental noise. In addition, the intensity of environmental noise fluctuates over time, and several descriptors of time-averaged noise levels are typically used. Common noise descriptors used in this analysis are summarized in Table 1.

TABLE 1. COMMON ACOUSTICAL TERMS AND DESCRIPTORS

Descriptor	Definition
Decibel (dB)	A unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to referenced sound pressure amplitude. The reference pressure is 20 micro-pascals.
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
Energy Equivalent Noise Level (L_{eq})	The energy mean (average) noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value (in dBA) is calculated.
Maximum Noise Level (L_{max})	The maximum instantaneous noise level during a specific period of time.

REGULATORY FRAMEWORK

CITY OF SACRAMENTO NOISE ORDINANCE

The City of Sacramento has adopted noise ordinances that contain limitations intended to prevent noise that may create dangerous, injurious, noxious, or otherwise objectionable conditions. These standards are to be applied at any point on a residential or agricultural property, such as rear yards, that are intended to accommodate leisure or active use. The City's noise standards are summarized in Table 2. As depicted, average-hourly noise levels are limited to 55 dBA L_{eq} during the daytime hours (7:00 a.m. to 10:00 p.m.) and 50 dBA L_{eq} during the nighttime hours (10:00 p.m. to 7:00 a.m.).

TABLE 2. CITY OF SACRAMENTO EXTERIOR NOISE STANDARDS

Noise Level Descriptor	Noise Level (dBA)	
	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Average-Hourly Noise Level (L_{eq})	55	50
Note: Each of the noise levels specified shall be lowered by five dB for simple tone noises, noises consisting primarily of speech, or music. *Source: City of Sacramento 2023*		

AMBIENT NOISE ENVIRONMENT

NOISE-SENSITIVE LAND USES

Noise-sensitive receptors in the project area consist predominantly of residential dwellings located to the east, west, and south of the project site. The nearest residential-use property line is located approximately 215 feet south of the proposed project, across Rene Avenue. In addition, Bell Avenue Elementary School is located northwest of the project site, at the intersection of Bell Avenue and Pinell Street. Nearby noise-sensitive land uses are depicted in Figure 3. Proposed Project Site.

NOISE IMPACT ASSESSMENT

METHODOLOGY

Operational noise levels associated with the proposed truck repair facility were calculated based on the noise levels associated with the operation of pneumatic tools and air compressors, which is the loudest equipment anticipated to be used onsite. Operational noise levels at nearby land uses were calculated using the SoundPlan, version 8.2, computer program and assuming an average operational noise level of 96 dBA L_{eq} at 10 feet (FHWA 2023). Predicted noise levels take into account intervening structures and terrain. Modeled receivers were placed at the nearest property lines of residential land uses.

PREDICTED NOISE LEVELS

Predicted operational noise levels and contours associated with the proposed project are summarized in Table 1Table 3 and are depicted in Figure 5. As depicted in Table 3, predicted operational noise levels at the property line of residential land uses would range from approximately 43 to 66 dBA L_{eq}. Predicted operational noise levels at nearby residential land uses (R2 and R4) would exceed the City's daytime noise standard of 55 dBA L_{eq}. Additionally, predicted operational noise levels at nearby residential land uses (R1, R2, R4, and R6) would exceed the City's nighttime noise standard of 45 dBA L_{eq}. Predicted daytime operational noise levels at Bell Avenue Elementary School would not exceed the City's daytime noise standard.

TABLE 3. PREDICTED EXTERIOR OPERATIONAL NOISE LEVELS AT NEARBY NOISE-SENSITIVE LAND USES WITHOUT RECOMMENDED MITIGATION MEASURES

Receiver	Land Use Type	Project Noise Level (dBA L_{eq})	Exceeds Noise Standard?	
			Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
R1	Residential	51.5	No	**Yes**
R2	Residential	56.3	**Yes**	**Yes**
R3	Residential	43.0	No	No
R4	Residential	66.0	**Yes**	**Yes**
R5	Residential	41.6	No	No
R6	Residential	54.6	No	**Yes**

Based on City of Sacramento daytime and nighttime noise standards of 55 and 50 dBA Leq, respectively (refer to Table 2).
Refer to Figure 5 for modeled receiver locations and predicted noise contours.

RECOMMENDED MITIGATION MEASURES

The following mitigation measures are recommended:

1. Truck service bay doors shall not be constructed along the southern building façade.
2. A 6-foot-tall noise barrier (PB1) shall be constructed along the western property line extending from the building façade northward to an approximate length of 180 feet. The barrier shall be constructed of masonry block or material of similar density and usage with no visible air gaps at the base of the barrier or between barrier construction materials (refer to Figure 6 for recommended noise barrier locations).
3. A 10-foot-tall noise barrier (PB2) shall be constructed along the eastern property line to an approximate length of 245 feet. The barrier shall be constructed of masonry block or material of similar density and usage with no visible air gaps at the base of the barrier or between barrier construction materials (refer to Figure 6 for recommended noise barrier locations).
4. Air compressors shall be fully enclosed (e.g., placed within an equipment storage room).
5. Operation of the truck repair facility shall be limited to the daytime hours of 7:00 a.m. and 10:00 p.m.

SIGNIFICANCE AFTER MITIGATION

Predicted noise levels, with recommended mitigation measures, are summarized in Table 4 and depicted in Figure 6. As depicted in Table 4, predicted operational noise levels at the property line of residential land uses would range from approximately 39 to 55 dBA L_{eq}. Predicted operational noise levels at nearby residential land uses would not exceed the City's daytime noise standard of 55 dBA L_{eq}. Implementation of Mitigation Measure 5 would limit truck bay operational activities to the daytime hours. With mitigation, predicted operational activities associated with the proposed truck repair facility would not exceed the City's daytime noise standard of 55 dBA L_{eq}.

TABLE 4. PREDICTED EXTERIOR OPERATIONAL NOISE LEVELS AT NEARBY NOISE-SENSITIVE LAND USES WITH RECOMMENDED MITIGATION MEASURES

Receiver	Land Use Type	Project Noise Level (dBA L_{eq})	Exceeds Daytime Noise Standard?
R1	Residential	48.9	No
R2	Residential	54.7	No
R3	Residential	42.9	No
R4	Residential	48.7	No
R5	Residential	38.7	No
R6	Residential	47.8	No

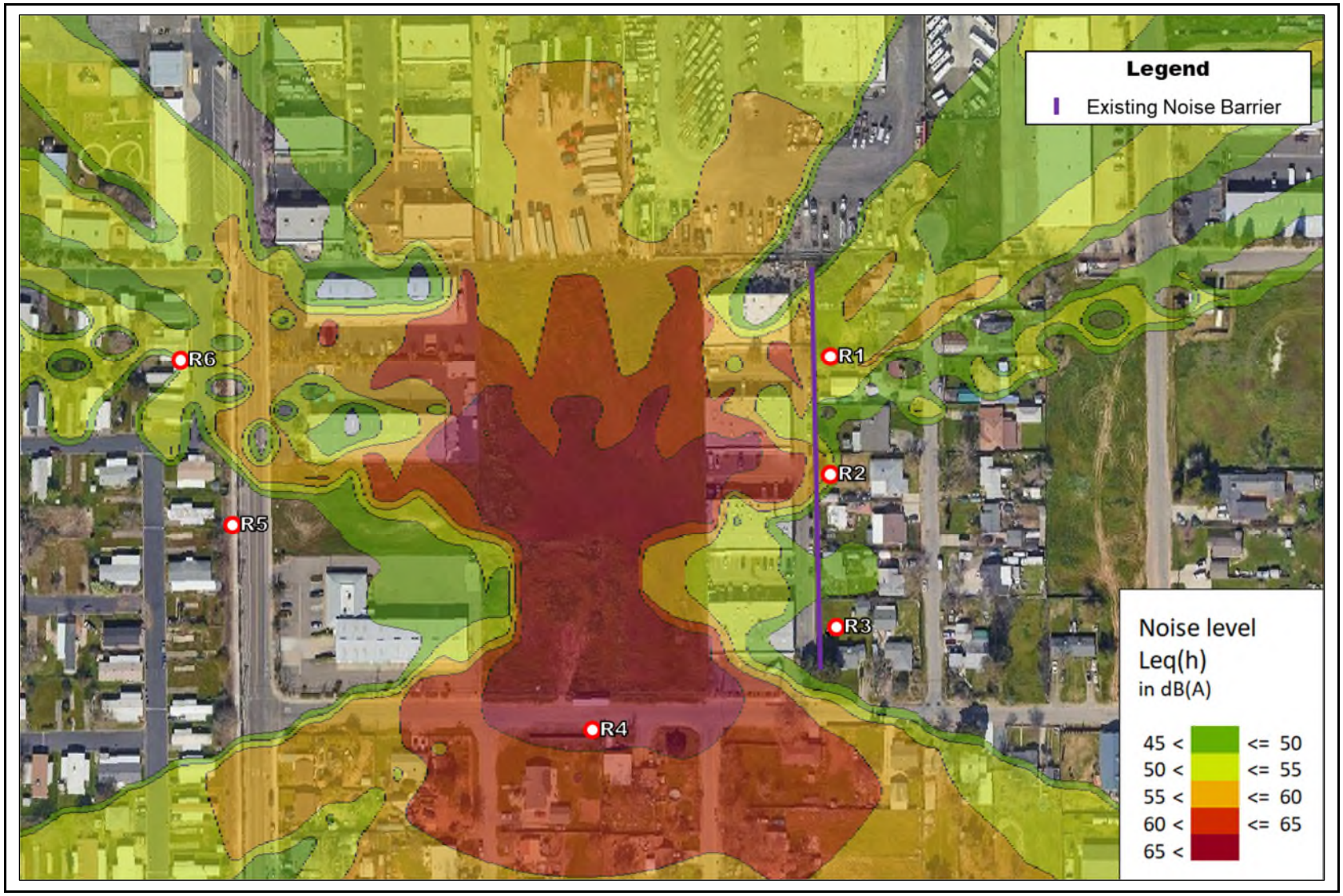
With recommended mitigation measures, operational activities would be limited to the daytime hours of 7:00 a.m. to 10:00 p.m.
Based on City of Sacramento daytime noise standard of 55 dBA Leq (refer to Table 2).
Refer to Figure 6 for modeled receiver locations and predicted noise contours.

SUMMARY OF FINDINGS & RECOMMENDATIONS

Based on the analysis conducted, operational noise levels would exceed the City's nighttime and daytime noise standards at nearby residential land uses. To minimize operational noise impacts to nearby land uses and to better ensure compliance with City noise standards, the following measures are recommended:

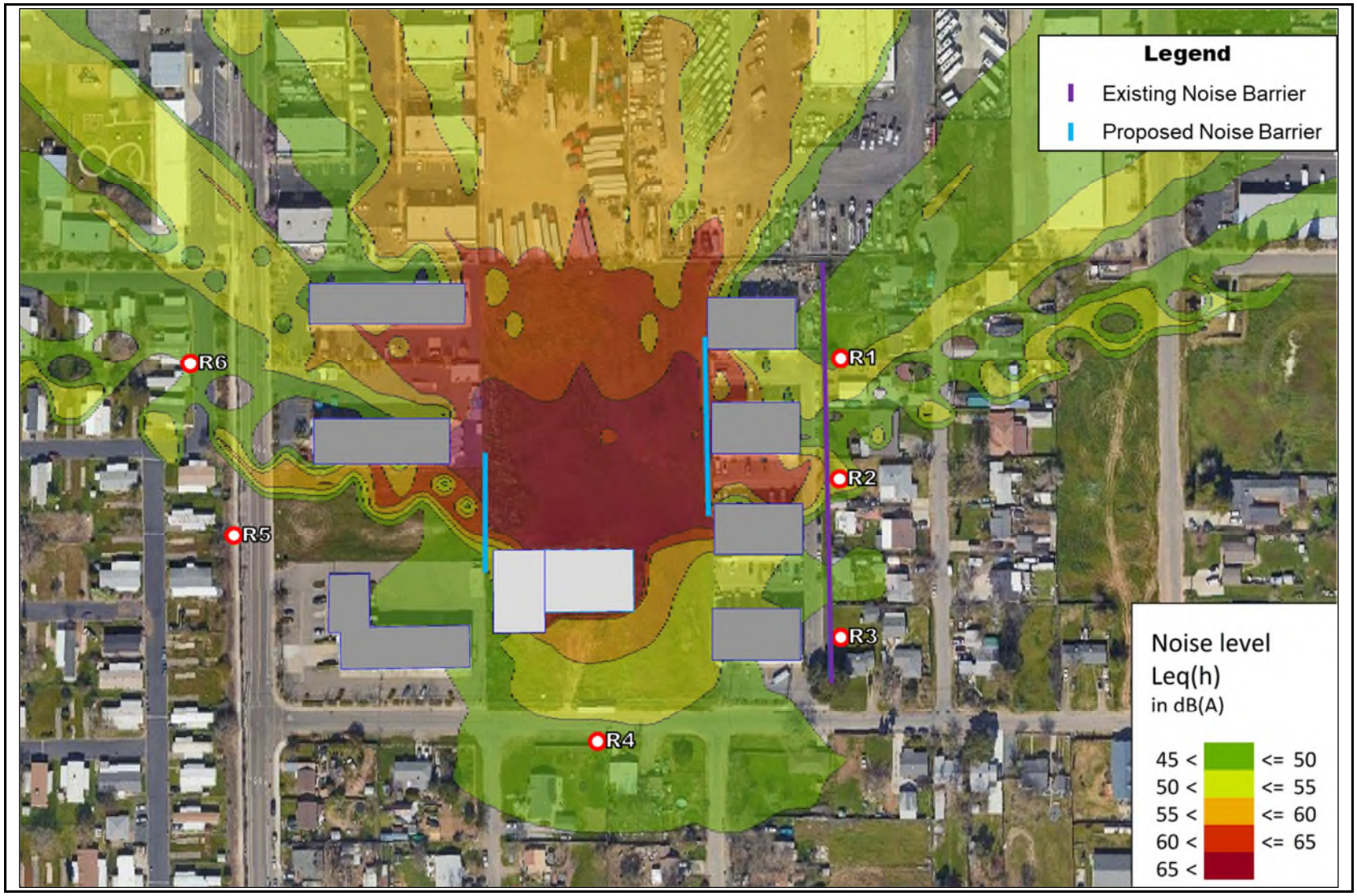
1. Truck service bay doors shall not be constructed along the southern building façade.
2. A 6-foot-tall noise barrier (PB1) shall be constructed along the western property line to an approximate length of 180 feet. The barrier shall be constructed of masonry block or material of similar density and usage with no visible air gaps at the base of the barrier or between barrier construction materials (refer to Figure 6 for recommended noise barrier locations).
3. A 10-foot-tall noise barrier (PB2) shall be constructed along the eastern property line to an approximate length of 245 feet. The barrier shall be constructed of masonry block or material of similar density and usage with no visible air gaps at the base of the barrier or between barrier construction materials (refer to Figure 6 for recommended noise barrier locations).
4. Air compressors shall be fully enclosed (e.g., placed within an equipment storage room).
5. Operation of the truck repair facility shall be limited to the daytime hours of 7:00 a.m. and 10:00 p.m.

FIGURE 5. PREDICTED OPERATIONAL NOISE LEVELS & NOISE CONTOURS WITHOUT RECOMMENDED MITIGATION MEASURES



Noise levels and contours were calculated using the SoundPlan computer program.

FIGURE 6. PREDICTED OPERATIONAL NOISE LEVELS & NOISE CONTOURS WITH RECOMMENDED MITIGATION MEASURES



Noise levels and contours were calculated using the SoundPlan computer program.

REFERENCES

City of Sacramento. Accessed March 2023. *Sacramento, California City Code, Tile 8 Health and Safety, Chapter 8.68 Noise Control*. Available at website url: https://library.qcode.us/lib/sacramento_ca/pub/city_code/item/title_8.

Federal Highway Administration (FHWA 2023). Accessed March 2023. *Roadway Construction Noise Model.* Available at website url: https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/.

Lex Coffroth Architect. June 2022. *Development Plans for Elite Truck Repair, LLC* (Site Plan Rev -1).