PROPOSED MITIGATED NEGATIVE DECLARATION

FILE: GPA 16-03, ZC 16-04, EA 16-01

PROJECT NAME: City of Placerville General Plan Land Use and Zoning Map Amendment – Housing Element Program 3 Implementation – Housing Opportunity Overlay - Placerville Drive at Cold Springs Road

NAME OF APPLICANT: City of Placerville

ASSESSOR'S PARCEL NO.: 323-570-01, 323-570-37

SECTION: 12 **T:** 10N **R:** 10E

LOCATION: The project area consists of two parcels that totals 7.60 acres located in northwestern Placerville. The site is bounded to the west by Cold Springs Road, to the north by Middletown Road and to the south by Placerville Drive. Parcels located north of the site are located within unincorporated El Dorado County. Parcel to the west, south and east are located within the City.

GENERAL PLAN AMENDMENT: **FROM:** C (Commercial)
TO: C-HO (Commercial – Housing Opportunity Overlay)

REZONING: **FROM:** (C) Commercial Zone
TO: (C-HO) Commercial – Housing Opportunity Overlay Zone

The project would amend the General Plan land use designation and zoning classification for Assessor's Parcel Numbers (APN) 323-570-01 and 323-570-37, designating the two vacant and adjoining parcels with the (HO) Housing Opportunity Overlay land use and zoning that would have the capacity to generate a minimum of 20 dwelling units per acre density up to a maximum density of 24 dwelling units per acre. The City of Placerville is proposing these changes that would provide land inventory and regulatory provisions that are necessary to accommodate the 2013-2021 Housing Element (5th Cycle) planning period unmet Regional Housing Needs Assessment (RHNA) allocation need of 133 units for low, very low and extremely low income households. The HO Overlay zone would provide an option for development on the project site under the provisions of the HO Overlay zone, or the project site could be developed under the provisions and regulations of the underlying (C) Commercial zone but not both.

REASONS THE PROJECT WILL NOT HAVE A SIGNIFICANT ENVIRONMENTAL IMPACT:

☐ **NO SIGNIFICANT ENVIRONMENTAL CONCERNS WERE IDENTIFIED DURING THE INITIAL STUDY.**

☒ **MITIGATION HAS BEEN IDENTIFIED WHICH WOULD REDUCE POTENTIALLY SIGNIFICANT IMPACTS.**

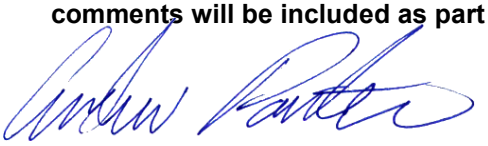
In accordance with the authority and criteria contained in the California Environmental Quality Act (CEQA), State Guidelines, and City of Placerville Guidelines for the Implementation of CEQA, the City Environmental Agent analyzed the project and determined that the project will not have a significant impact on the environment. Based on this finding, the Development Services Department hereby prepares this DRAFT MITIGATED NEGATIVE DECLARATION (DMND). A period of thirty (30) days from the date of filing this negative declaration/mitigated negative declaration will be provided to enable public review of the project specifications and this document prior to action on the project by the CITY OF PLACERVILLE.

A copy of the DMND may be viewed at the Development Services Department, City Hall 2nd Floor, 3101 Center Street, Placerville, CA 95667 during business hours from 8:00 a.m. to 5:00 p.m., Monday through Friday. The DMND may also be viewed from the *Current Development Projects webpage* located on the Development Services Department website at: https://www.cityofplacerville.org/current-development-projects

PUBLIC REVIEW PERIOD Before 5:00 p.m. on December 30, 2016, any person may:

1. **Review the Draft Mitigated Negative Declaration (MND) as an informational document; or**

2. **Submit written comments regarding the information, analysis and mitigation measures in the Draft MND. All comments will be included as part of the Final MND for the project.**



City Planner

City of Placerville

DRAFT INITIAL STUDY/ ENVIRONMENTAL CHECKLIST AND MITIGATION MONITORING PROGRAM

Project Title:
General Plan Amendment 16-03, Zone Change 16-04, Environmental Assessment 16-01:
City of Placerville General Plan Land Use and Zoning Map Amendment – Housing Element Program 3 Implementation – Housing Opportunity Overlay - Placerville Drive at Cold Springs Road.

Lead Agency Name and Address:
City of Placerville
3101 Center Street
Placerville, CA 95667

Contact Person and Phone Number:
Andrew Painter
City Planner
Development Services Department
(530) 642-5252

Project Location: The project area consists of two parcels totaling 7.60 acres located in northwestern Placerville. The site is bounded to the west by Cold Springs Road, to the north by Middletown Road and to the south by Placerville Drive. Parcels located north of the site are located within unincorporated El Dorado County. Parcels to the west, south and east are located within the City. **Figure 1** provides a neighborhood map location of the site. City and County Assessor's Records indicate that the site (APNs 323-570-01 and 323-570-37) is vacant. See **Figure 2**.

Figure 3 depicts the United States Geological Survey's 1973 photo revised Placerville Quadrangle, El Dorado County. It slopes generally to the south and southwest, toward Cold Springs Road and Placerville Drive. Average slope is approximately twenty-one percent (21%). Vegetation consists of common Sierra foothill species of pine, oak, buckbrush, Himalayan blackberry, and native and non-native grasses.

General Plan Designation: Commercial (C)

Zoning: Commercial (C)

Description of Project: Identified in the City's 2013-2021 Housing Element is *Program 3. High Density Development - Unmet Need*. Program 3 requires the City to rezone land to accommodate the unmet housing need of 133 units for lower income households that were identified during the 2013-2021 Housing Element planning period (5th Cycle).

Proposed changes would provide land inventory and regulatory provisions that are necessary to accommodate the City's remaining unmet Regional Housing Needs Assessment (RHNA) allocation need for the low, very low and extremely low income categories for the 2008-2013 Housing Element (4th Cycle) planning period and the 2013-2021 Housing Element (5th Cycle) planning period. Rezoning would create an inventory of land with a land use designation and zoning classification capable of developing high density residential zoning at twenty (20) units minimum per acre to meet the City's unmet lower-income housing needs. The Program proposes to implement the rezoning through the General Plan Land Use and Zoning Map Amendment process to designate and rezone sufficient acreage to higher density residential to meet the minimum unmet Regional Housing Need Allocation requirements. The specific rezoning process is proposed through the implementation of the 2013-2021 Housing Element.

The City has sufficient land area zoned to accommodate 106 unit of housing for lower-income households carried over from the 4th Cycle Housing Element. During the fall of 2016, City Council will have adopted land use and zoning map amendments under the HO (Housing Opportunity Overlay Zone) provisions, with its 20 acre minimum density, covering three parcels that have a realistic potential to generate 107 units of multi-family residential units.

The City does not have sufficient land area zoned to accommodate 133 units of housing for lower-income households for the 5th Cycle Housing Element planning period. Sufficient land however is available and zoned to accommodate housing for moderate-income and above households over the planning period.

To accomplish Placerville's RHNA allocation for the Housing Element 5th Cycle, the City project under Program 3 would change the General Plan Land Use Map and Zoning Map by designating the Project Location with the HO (Housing Opportunity Overlay) land use designation and zoning district that would have the capacity to generate 20 dwelling units per acre minimum density.

The Project Location contains two parcels totaling 7.60 acres. The site is currently designated and zoned Commercial and vacant. Under the proposed project, the City would change the General Plan land use designation of the site from C to C - HO (Commercial – Housing Opportunity Overlay, 20-24 du/acre) and change the zoning of the site from C to C - HO (Commercial – Housing Opportunity Overlay Zone, 20-24 du/acre) that corresponds to the 20 unit/acre minimum density required by State housing law for its extremely-low, very-low, and low-income household categories. At the 24 unit/acre maximum density the Project Location could support a maximum yield of up to182 housing units.

No development plans to construct residential units have been submitted at this time for the Project Location. This Initial Study considers the potential environmental effects of build-out of the Project Location being considered for the land use classification and zone designation amendments as market conditions allow over the Housing Element's 2013-2021 planning period. Under state law, the project site would be developable by-right under the Housing Opportunity Overlay and would not require further discretionary approval by the City. For assumption purposes the City anticipates construction of four multi-family structures (two on each parcel), three stories each, with 32,000 square feet of total floor area per structure, accommodating 40-48 units per structure. The theoretical or maximum yield of the proposed site was used by the City in its environmental evaluation ~~as a "worst case scenario"~~ approach to evaluating the potential environmental impacts associated with future development on the properties. Actual yield is anticipated to be much less intensive than analyzed in this Initial Study as development constraints such as topographic and regulatory constraints such as frontage improvements, or roadway improvements could limit the amount of development that is achievable on the site.

Background: The City of Placerville General Plan EIR and General Plan were adopted on January 23, 1990. The build-out residential potential projected by the EIR for the General Plan is 9,005 dwelling units (General Plan EIR, 1990). The number of existing units in the City as of 2010 is 4,667 dwelling units (Department of Finance). Therefore, build-out has not yet occurred at the density level envisioned in the EIR and the General Plan (1990).

State law was amended in 2004 (AB 2348) to clarify the process by which cities determine the capacity of sites for new housing developments. The law established minimum densities that are presumed to be necessary to facilitate the development of housing that is affordable to lower income households for jurisdictions classified as suburban and within a Metropolitan Statistical Area (MSA). Placerville is located within the Sacramento-Arden Arcade-Roseville Metropolitan Statistical Area. The minimum density for suburban jurisdictions within an MSA is 20 dwelling units per acre.

Placerville did not meet an objective of the 2008-2013 Housing Element (4th Cycle) to address the shortfall of available land to accommodate 106 low, very low and extremely low income units before the October 31, 2013 end of the 4th Cycle Housing Element planning period. Per Government Code Section 65584.09, if during the prior planning period the City did not make available sites to accommodate the unmet portion of the Regional Housing Needs Allocation (RHNA) then the City must rezone or zone adequate sites within the 5th Cycle, 2013-2021 Housing Element planning period.

The City's 5th Cycle Housing Element planning period began on October 31, 2013. The City's 5th Cycle Housing Element was adopted by City Council in February 2014. In March 2014, the California Department of Housing and Community Development notified the City that the Housing Element is in full compliance with the state Housing Element law. The City's RHNA for the 5th Cycle Housing Element identified 133 housing units for the low, very low and extremely low income categories. Housing Element Implementation Program 3: High-Density Development – Unmet Need requires the City to amend the Zoning Map and the Zoning Ordinance to meet state housing law requirements and facilitate implementation of the 5th Cycle Housing Element.

During August 2016, the City amended its Zoning Ordinance by establishing a Housing Opportunity Overlay (HO), Section 10-5-24. The purpose of the HO Zone is to apply it to sites that would implement Housing Element goals, policies and programs, including meeting the goals of the Regional Housing Need Allocation (RHNA). The HO Zone would allow development on designated sites using the existing base (underlying) zoning of a property, or as an alternative, to develop for residential uses in accordance with the HO Zone but not both. Once the property has developed in the manner provided under the base zone the property owner relinquishes the right to redevelop the land using the HO Zone.

The HO Zone authorizes the development of multi-family residential and single-family residential attached development as permitted uses. A minimum of fifty percent (50%) of all housing must be affordable to very low and low-income households, subject to the minimum mix of affordable dwelling units: (a) Very low-income households: thirty percent (30%) of the total units in the development; (b) Low-income households: twenty percent (20%) of the total units in the development. Minimum density was set at 20 dwelling units per acre. Maximum density was set at 24 dwelling units per acre. In addition, residential housing developed within the HO Zone is encouraged to utilize energy efficient design techniques and environmentally sensitive design and building materials; residential development is also encouraged to include units accessible for persons with physical disabilities, persons with developmental disabilities, and that support aging in place. Per this HO Zone section, the City may not require a conditional use permit, planned development or other discretionary local government review or approval that would constitute a "project" under the California Environmental Quality Act. This is consistent with Government Code Section 65583.2.

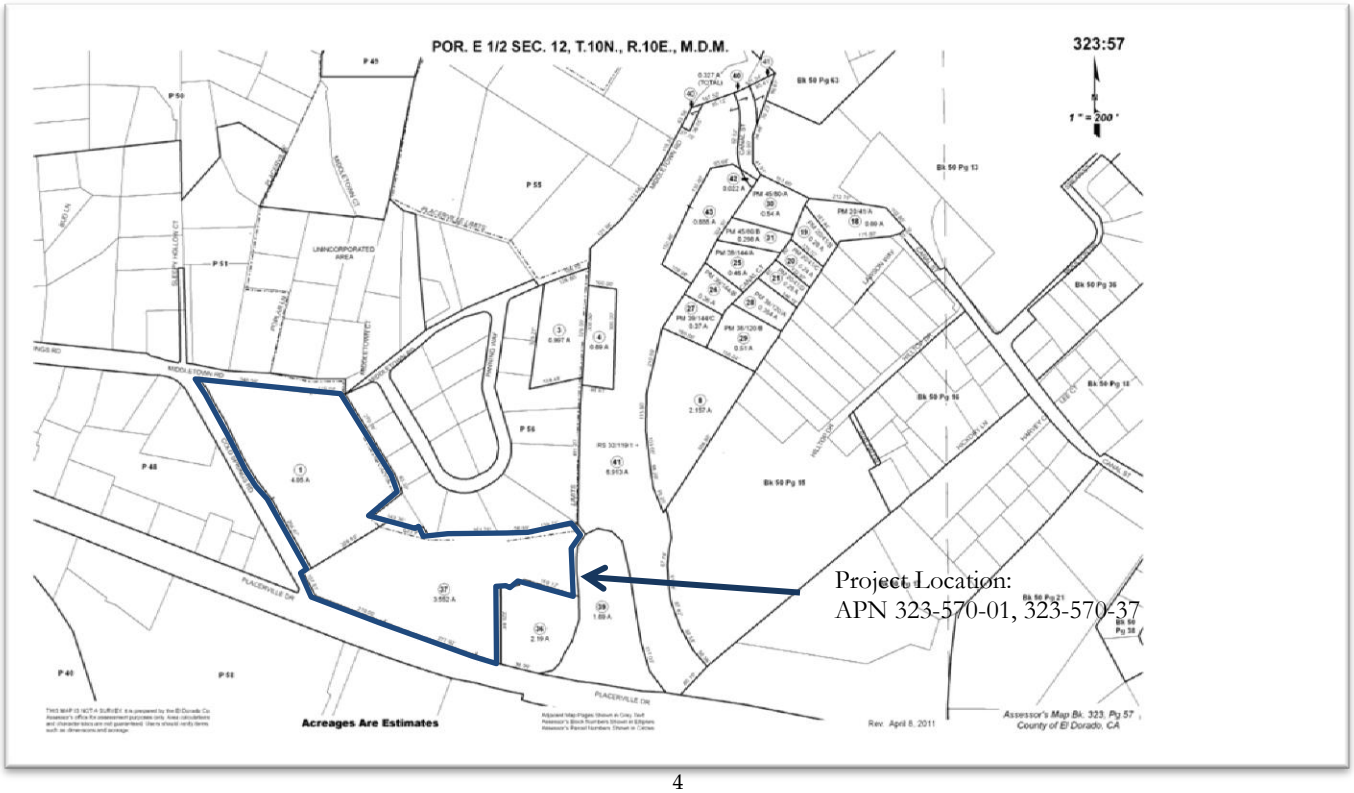
During October 2016, the City amended its General Plan Land Use Section and its 2013-2021 Housing Element adding the HO zone and established a new land use designation, "HO (Housing Opportunity Overlay)." The HO General Plan Land Use designation was created to support land uses and to ensure consistency with the Housing Opportunity Overlay Zone (HO). In addition, the City placed the HO General Plan Land Use designation and the HO Zone District on two parcels of land located within The Ridge at Orchard Hill Planned Development, APN 323-220-06 and 323-220-08 that would accommodate 72 multi-family residential units of the City's unmet RHNA need (GPA16-02, ZC 16-03, PD 03-01). During December 2016, the City is processing an additional amendment to the HO Overlay zone and land use designations for APN 323-400-20 and within the Placerville Heritage Homes Planned Development under a separate application (GPA16-04, ZC16-05, PD 06-01). These amendments would accommodate 35 multi-family residential units of unmet lower-income household need, furthering the partial implementation of Program 3 of the 2013-2021 Housing Element.

Surrounding Land Uses and Setting: The site is bounded to the west by Cold Springs Road, and commercial retail and service uses. It is bounded to the north by Middletown Road and commercial office and single-family and accessory uses. To the east of the site, the site is bounded by an existing single-family residential development and commercial retail and services uses. To the south, the site is bounded by Placerville Drive containing professional offices and commercial retail uses.

Other Public Agencies Whose Approval is Required: No agency approvals other than approvals from the City of Placerville are required to carry out the proposed General Plan Map Amendment and Zoning Map Amendment.

Figure 1. Project Location – Placerville Drive at Cold Springs Road

Figure 2. El Dorado County Assessor's Map



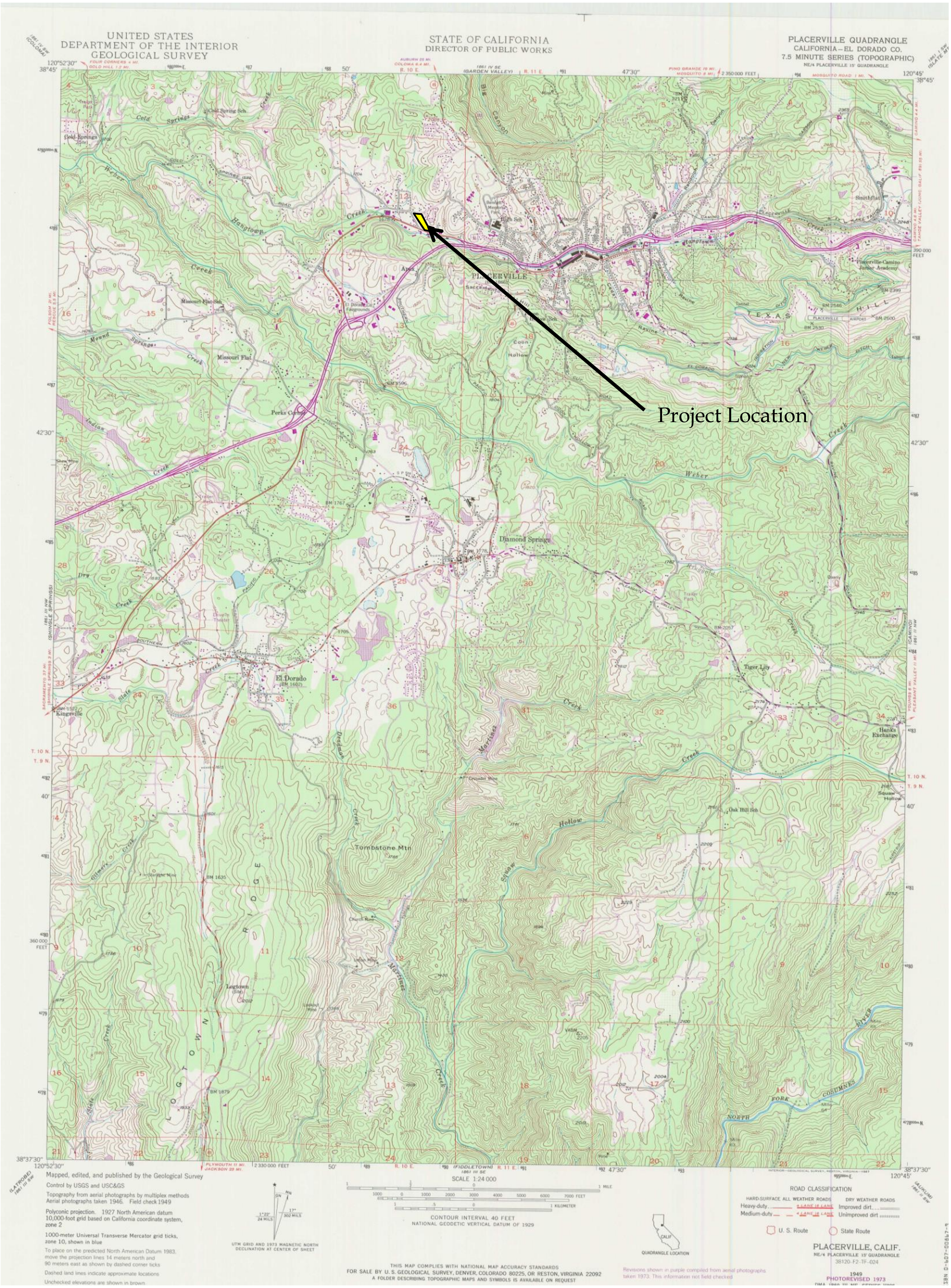

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
STATE OF CALIFORNIA
DIRECTOR OF PUBLIC WORKS
PLACERVILLE QUADRANGLE
CALIFORNIA–EL DORADO CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
Project Location
PLACERVILLE
Smithflat
Cold Springs
Missouri Flat
Perks Corner
Diamond Springs
El Dorado
Kingsville
Tiger Lily
Hanks Exchange
Oak Hill Sch
Tombstone Mtn
Logtown
LOGTOWN RIDGE
Weber Creek
Hangtown Creek
Big Canyon
TEXAS HILL
NORTH FORK COSUMNES RIVER
SCALE 1:24 000
CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography from aerial photographs by multiplex methods
Aerial photographs taken 1946. Field check 1949
Polyconic projection. 1927 North American datum
10,000-foot grid based on California coordinate system, zone 2
1000-meter Universal Transverse Mercator grid ticks, zone 10, shown in blue
Dashed land lines indicate approximate locations
Unchecked elevations are shown in brown
UTM GRID AND 1973 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
QUADRANGLE LOCATION
Revisions shown in purple compiled from aerial photographs taken 1973. This information not field checked
ROAD CLASSIFICATION
PLACERVILLE, CALIF.
NE/4 PLACERVILLE 15' QUADRANGLE
1949
PHOTOREVISED 1973

Figure 4. Project Site – Existing Land Use: C (Commercial)

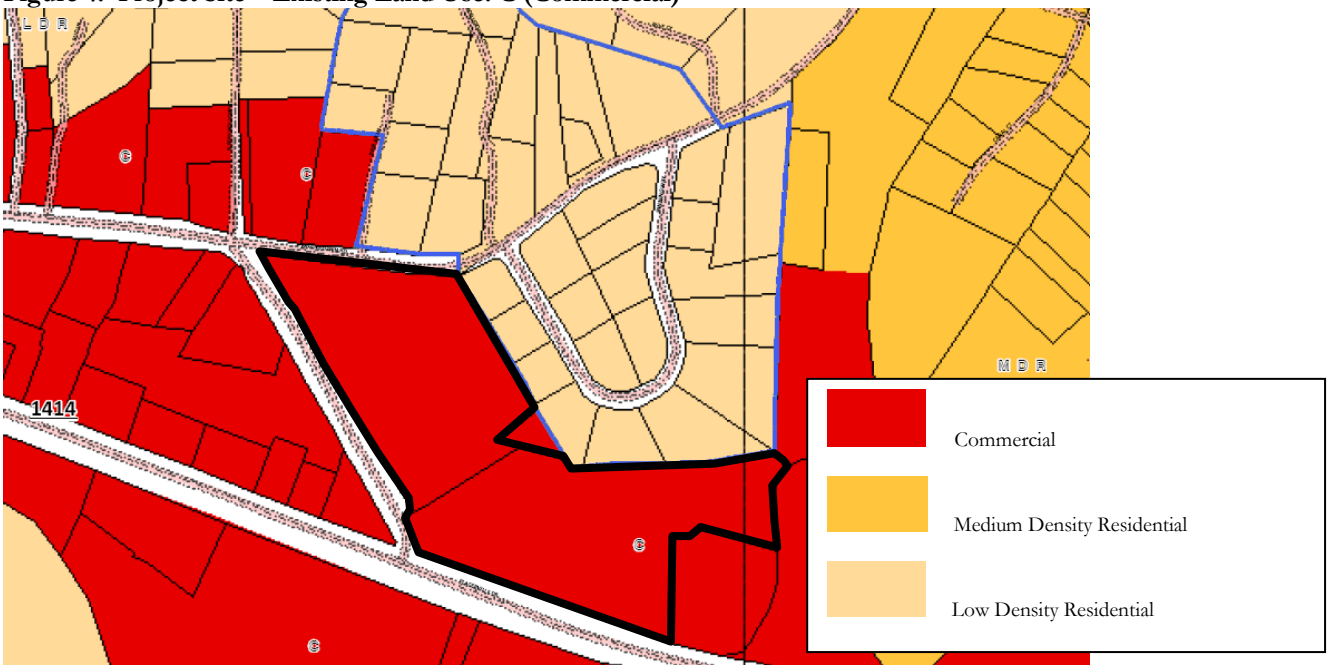


Figure 5. Project Site – Proposed Land Use: C- HO (Commercial – Housing Opportunity Overlay)

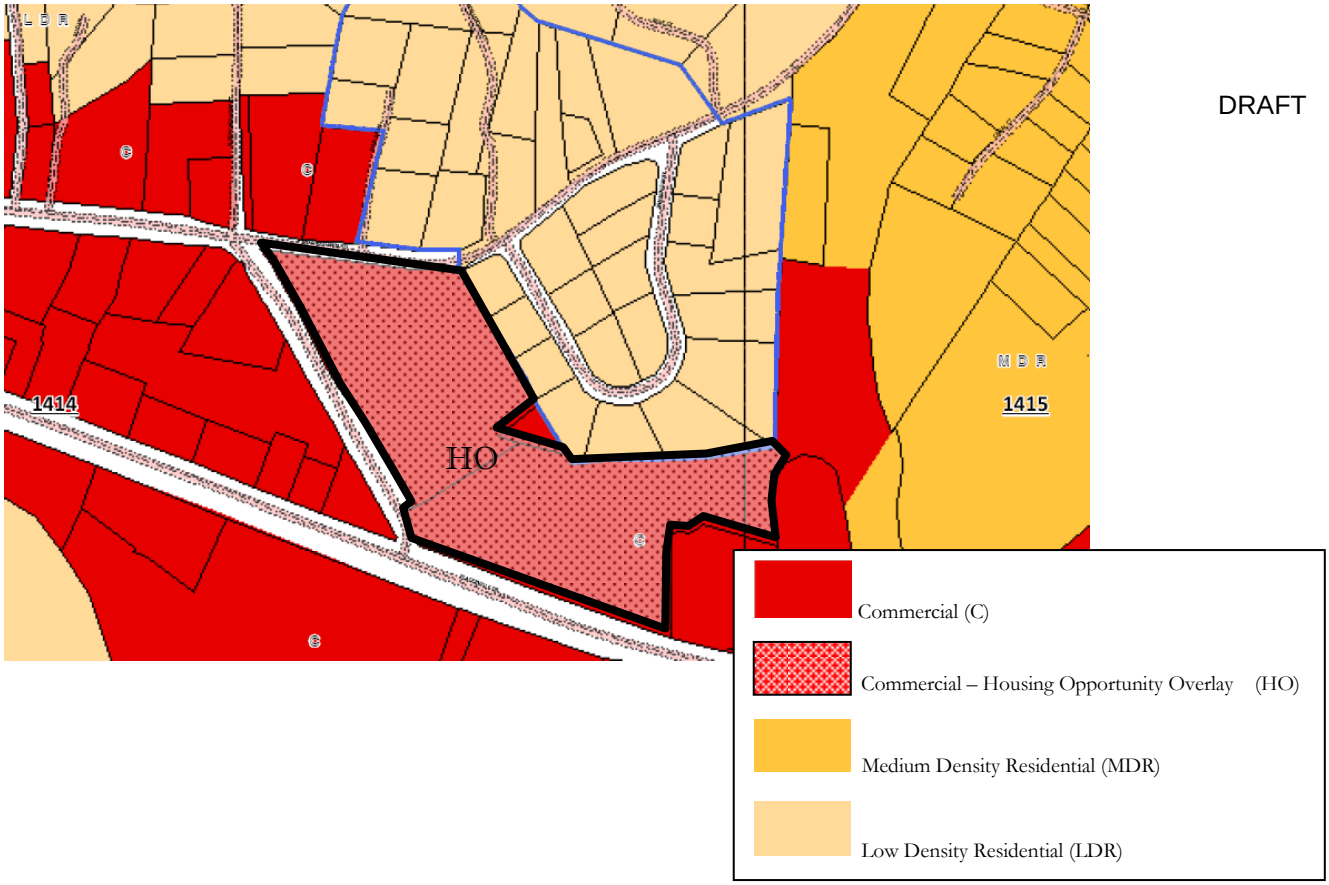


Figure 6. Project Site – Existing Zoning: C (Commercial)

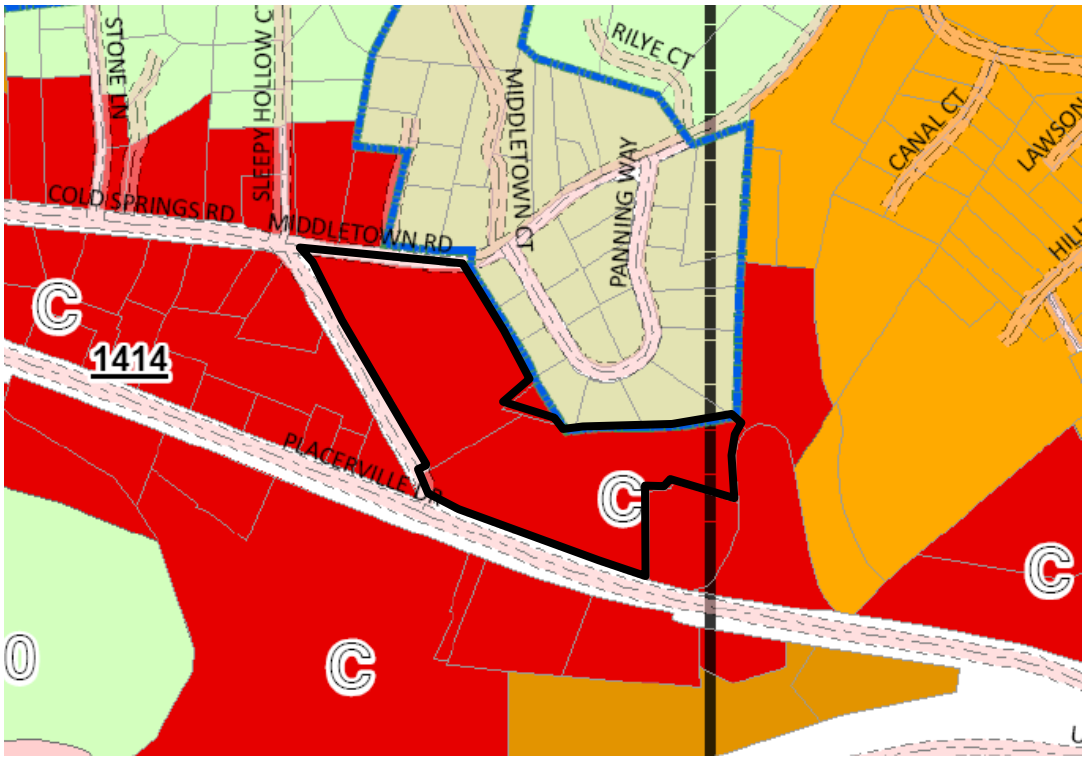
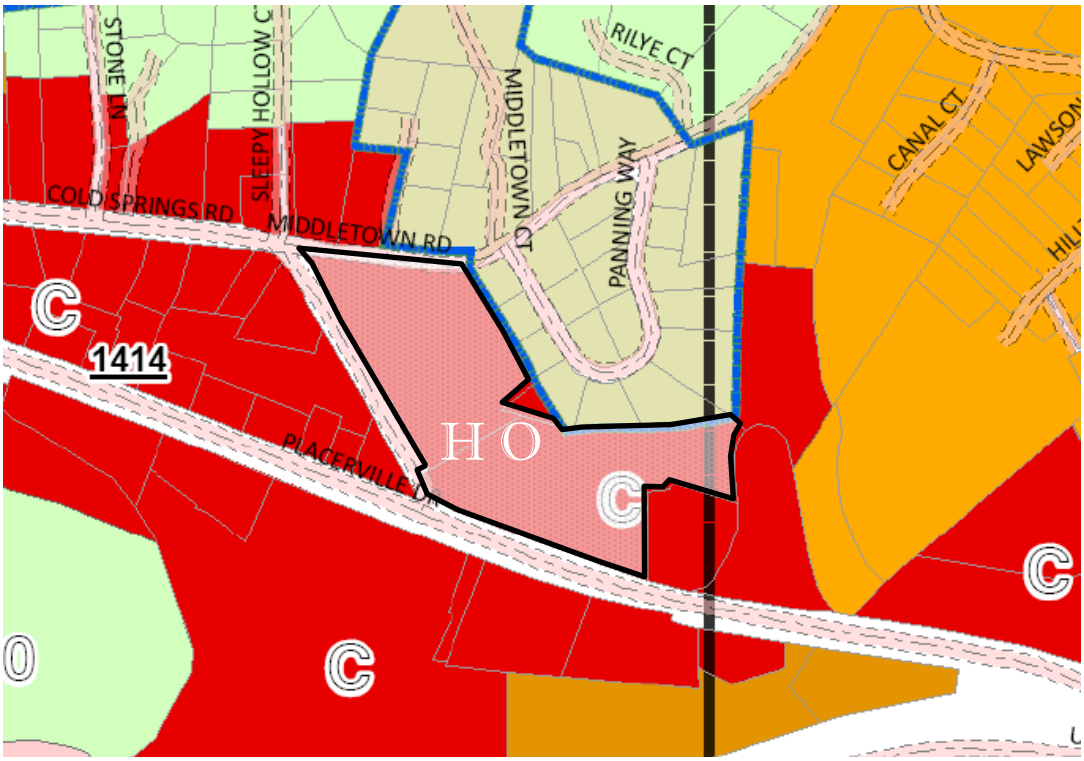


Figure 7. Project Site – Proposed Zoning: C-HO (Commercial-Housing Opportunity Overlay)



ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist on the following pages.

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

DETERMINATION

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

Signature

11-30-16
Date

Andrew Painter
Printed Name

City of Placerville
For

I. AESTHETICS. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

Analysis

a) The City of Placerville General Plan Background Report identifies areas that are considered to be especially scenic and worthy of preservation. These areas include primary and secondary ridgelines and primary watercourses. The site is on the lower slopes of a General Plan identified Secondary Ridgeline that has a north-south orientation. This Secondary Ridgeline comprises the Panning Way residential neighborhood and other residential development both located within El Dorado County. Site elevation ranges from 1,725' at Placerville Drive to 1,800' near the northern property boundary with the Panning Way residential neighborhood. The project site lies below a secondary ridgeline and therefore a potential impact to the ridgeline would not occur.

Located approximately 150' south is Hangtown Creek. Hangtown Creek, within the Placerville Drive corridor, lies below the Placerville Drive elevation. The creek is obscured from view by Placerville Drive and existing buildings located along the south side of Placerville Drive, opposite the project location. Views of the creek would not be impacted; therefore a potential scenic impact to Hangtown Creek would not occur. Consequently, the project will have no impact directly, indirectly or cumulatively to a scenic vista.

b) Existing tree cover consists of mostly native foothill pines and oak species, and non-native invasive tree-of-heaven (Ailantus altissima). Approximately 50% of the project site is covered by trees. US Highway 50 is located approximately 1,000 feet south of the site. The elevation of US 50 directly south of the project location is approximately 1,800'. Nearly 1,500' east of the site, at the Placerville Drive Overcrossing on US Highway 50, US Highway 50 easterly is designated a State Scenic Highway in the California Scenic Highway System. The Scenic Highway portion of US 50 is not visible from the site due to the topography. No rock outcroppings exist on the site. Therefore, the project will have no impact directly, indirectly or cumulatively.

c) The site is currently vacant. The visual character that exists is of its undeveloped condition. Visual impacts resulting from the presence of construction vehicles or ground disturbance may occur during project construction activities; however, construction activities would be temporary. The permanent development of the site under the Housing Opportunity Overlay would consist of multi-family residential or attached single-family residential uses. The Placerville Zoning Ordinance would restrict building heights at the project site to a maximum of forty feet (40') Zoning Ordinance Section 10-5-24(D)7, Maximum Building Height. The

Placerville Zoning Ordinance Section 10-5-24(D)4, Maximum Parcel Coverage, sets maximum lot coverage at 60% for the HO Zone. Zoning Ordinance Section 10-5-24(D)6, Minimum Yards, sets requirements for minimum front yard, side yard, and rear yard (setbacks). The Project Location is located within the Placerville Drive and Cold Springs Road commercial corridor consisting of urbanized development that is surrounded by residential and commercial development. The development would be compatible with adjacent uses with the implementation of following mitigation measure that would require adherence with the *General Regulations* and the *Specific Regulations* for the HO zone (Section 10-5-24 (D) and (E)) of the City's Zoning Ordinance, all pertinent City Ordinances and City standard street cross-section details, the County of El Dorado Design and Improvement Standards Manual, as revised May 18, 1990, the County of El Dorado Drainage Manual, dated March 14, 1995; the 2010 State of California Department of Transportation (Caltrans) Standard Plans and Standard Specifications, the El Dorado Irrigation District (EID) Design and Construction Standards, dated July 1999, and Chapters and Sections of the City of Placerville Development Guide as amended, would minimize substantive degradation to the existing visual character or quality of the site and its surroundings to a less than significant level.

Mitigation Measure

AES-1: Future residential development on the project site under the Housing Opportunity Overlay provisions shall conform with Zoning Ordinance Section 10-5-24 (D): General Regulations and (E): Specific Regulations of the HO zone and, the following Chapters and Sections of the *City of Placerville Development Guide* as amended: Chapter V: Specific Site Improvements; Chapter VI: Landscape Design Guidelines, Section A: General Requirements, Section B: Street Tree Program, Section F: Community Intersections (Surface Streets), Section H: Water-Conserving Landscapes, Section J: Fuel Modification Zones and Section K: Post-Construction Storm Water Management; Chapter VII: Irrigation System Design; Chapter VIII: Landscape Maintenance; Chapter IX: Hillside Development and Natural Open Space; Chapter X: Existing Trees and Native Plant Material; Chapter X: Irrigation System Design, and Chapter XI: Lighting; all pertinent City Ordinances and City standard street cross-section details available at the office of the City Engineer; will be designed in accordance with the County of El Dorado Design and Improvement Standards Manual, as revised May 18, 1990; the County of El Dorado Drainage Manual, dated March 14, 1995; the 2010 State of California Department of Transportation (Caltrans) Standard Plans and Standard Specifications; sewer service will be provided by the City and shall be designed and constructed in accordance with El Dorado Irrigation District (EID) Design and Construction Standards, dated July 1999, except when otherwise directed by the City Engineer; water distribution is within the EID service area and shall comply with their standards and conditions of approval.

Timeframe for Implementation: Prior to Issuance of a building permit.
Responsibility for Implementation: Developer.
Oversight of Implementation: Development Services - Building, Planning and Engineering Divisions; El Dorado Irrigation District

d) Potential new residential construction in conjunction with this project has the potential to create light or glare where no such lighting presently exists. Outdoor lighting for these uses is subject to City Zoning Ordinance requirements (Section 10-4-16) that lighting be located and/or shielded in a manner to ensure that the intensity and direction of lighting does not constitute a nuisance to abutting residential dwellings or abutting street rights of way. No development plans have been submitted for any of the project sites and, as such, no lighting plans have been developed. Mitigation measure AES-1 has been included to ensure that impacts would be less than significant. With incorporation of Mitigation Measure AES-1, light impacts would be less than significant.

Mitigation Measure

AES-2: Future residential development on the project site under the Housing Opportunity Overlay provisions shall submit a lighting plan in conformance with Section 10-4-16:

Exterior Lighting Regulations. All outdoor lighting must be shielded and pointed downward. The lighting plan shall include the types of lighting, heights proposed and locations the lighting is going to be built.

Timeframe for Implementation: Prior to issuance of a building permit.
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services – Planning Division

Adherence with this requirement upon issuance of a valid City Building Permit for multi-family residences is expected to reduce light or glare potential impacts to a less than significant level.

Sources
Placerville Municipal Code, *Zoning Ordinance*
City of Placerville Topographical Map
City of Placerville, *Historic Resources Inventory*
City of Placerville *Development Guide*
California Department of Transportation Website "Scenic Highway Corridor Program"
http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/scenic_hwy.htm

II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒

d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Analysis

a), b) The site is currently vacant. Neither the site nor its immediately adjacent parcels are under agricultural cultivation. The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) maps indicate the site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The site is not enrolled in a Williamson Act contract. Therefore, the project will have no impact directly, indirectly or cumulatively.

c, e) Timber production, timberland as defined by Public Resources Code Section 12220(g), or agriculture uses have not been conducted in areas surrounding the site due to established residential and public park improvements. The site is located within the C (Commercial Zone) and the C (Commercial) General Plan Land Use designation. Proposed zoning for the site is C-HO (Commercial – Housing Opportunity Overlay Zone). Therefore, the project would not conflict with any zoning designations designed to preserve timber or agricultural resource preservation. Therefore, no impacts will occur from this project directly, indirectly or cumulatively.

d) The City of Placerville has no forest land nor does it have any timberland as analyzed under Section II c) and e) of this Initial Study therefore no impacts will occur from this project directly, indirectly or cumulatively.

Sources
California Resources Agency, *Farmland Mapping and Monitoring Program*
City of Placerville Municipal Code
Public Resources Code
City of Placerville General Plan

III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:

	Potentially Significant Impact	**Less than Significant with Mitigation Incorporated**	**Less than Significant**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☒	☐	☐

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Analysis

a), b), c), d) The El Dorado County Air Quality Management District (AQMD) in 2002 prepared a *Guide to Air Quality Assessment* intended to be used during the Initial Study phase of the CEQA process. The City of Placerville is located within the AQMD. AQMD boundaries are coterminous with the boundaries of El Dorado County. The City and the western portion of El Dorado County are located within the Mountain Counties Air Basin (MCAB). The MCAB is comprised of Plumas, Sierra, Nevada, Placer (middle portion), Amador, Calaveras, Tuolumne and Mariposa Counties.

In April 2014, the California Air Resources Board published area designations for state ambient air quality standards within the Mountain Counties Air Basin. Table 1 contains the attainment status for the Federal Clean Air Act Amendments' criteria air pollutants of ozone, PM_{10} (particulate matter, 10 microns), $PM_{2.5}$ (particulate matter, 2.5 microns), CO (carbon monoxide), NO_2 (nitrogen dioxide) and SO_2 (sulfur dioxide).

Table 1.

Pollutant	Designation / Classification	
	Federal Standards	State Standards
Ozone	No Federal Standard	Non-attainment
PM_{10}	Unclassified	Non-attainment
$PM_{2.5}$	Unclassified	Unclassified
CO	Unclassified/Attainment	Unclassified
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment

Local El Dorado County Air Quality Management District (AQMD) assessment threshold of significance screening criteria for reactive organic gas (ROG) and oxides of nitrogen (NOx), which are precursors of ozone, is 82 pounds per day. According to AQMD's *Guide to Air Quality Assessment,* apartment development projects containing less than 350 dwelling units are assumed to not exceed the 82 pounds per day emissions thresholds for ROG and NOx. In addition, the AQMD's Guide further considers operational project activities for development projects that fall below the 82 pounds per day emission thresholds for ROG and NOx to have less than significant carbon monoxide (CO) and nitrogen dioxide (NO_2) impacts, and less than significant PM_{10} (particulate matter, 10 microns) and sulfur dioxide (SO_2) impacts.

The project has the potential to develop 182 dwelling units under the proposed HO zone and land use designation at the maximum density of the HO Zone of 24 du/acre at the Project Location. AQMD

thresholds of significance would not be exceeded as the number of proposed units would not exceed the 350 dwelling unit threshold.

Consequently, the impact of the project's emissions at the project sites on regional air quality under thresholds b), c), and d), and on sensitive receptors, would be less than significant (not cumulatively considerable).

The AQMD has developed a rule (Rule 223-1, Fugitive Dust) to limit the quantity of fugitive dust emissions from construction, and construction related activities within the AQMD. Developing the site at the density authorized under the proposed HO zone designation is expected to generate short-term inhalable particulate matter or fugitive dust. This impact is considered potentially significant. The following mitigation measure is expected to minimize construction related fugitive dust emissions to a less than significant level.

Mitigation Measure

AQ-1: The project developer for any future residential development on the site shall comply with AQMD Rule 223-1 to reduce construction dust through water application, stabilizing exposed soil, covering loads, periodic cleaning of paved areas, establishing speed limits.

Timeframe for Implementation: During pre-construction and construction phases.
Responsibility for Implementation: Developer
Oversight of Implementation: Engineering Division and the Building Division of the Development Services shall confirm that the grading plan and building plans are in compliance with AQMD Rule 223-1.

The AQMD has developed a rule regarding the discharge to the atmosphere of volatile organic compounds (VOC's) caused by the use or manufacture, mixing, storage and application of Cutback or Emulsified asphalt used for paving, road construction or road maintenance. It is called Rule 224 - Cutback and Emulsified Asphalt Paving Materials. Development on the site for residential use at the density authorized under the proposed HO zone designation is expected to result in the paving of driveways and parking areas onsite that have the potential to discharge VOC into the atmosphere. The following mitigation measure is expected to minimize VOC discharge to the atmosphere to a less than significant level.

Mitigation Measure

AQ-2: The project developer for any future residential development on the site shall adhere to El Dorado County Air Pollution Control District's Rule 224 - Cutback and Emulsified Asphalt Paving Materials for all asphalt paving proposed on site, and shall submit a paving plan to the District to determine compliance with Rule Standards.

Timeframe for Implementation: Prior to issuance of a building permit. During construction phase.
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services – Engineering Division and AQMD

e) Project grading, construction activities and residential uses are not expected to create objectionable odors. Therefore, the project will not cause objectionable odors affecting a substantial number of people either directly, indirectly and cumulatively.

Sources
El Dorado County Environmental Management Department Air Quality Management District
El Dorado County Air Pollution Control District, *Guide to Air Quality Assessment, 2002*

IV. BIOLOGICAL RESOURCES. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Analysis

a,) The project site is located in a highly developed, urbanized area and is completely surrounded on all sides by existing residential and commercial uses and public streets. No known endangered, threatened or rare species or their habitats are present on the site or in the immediate project vicinity (General Plan 1990).

Site visit by City staff on September 30, 2016 revealed the following plant and animal species:

Yellow star thistle	Foothill pine	Valley oak	coyote bush
Queen Ann's Lace	Himalayan blackberry	Interior live oak	Blue oak
Chinese Tree of Heaven	Buck brush	Plum root stock	

Blue jay Robin Common ground squirrel Resident Mule Deer

Development of the site, at the density authorized under the proposed HO zone designation, would likely cause tree removal that could potentially disturb bird species. Raptors such as red tailed hawks, owls and turkey vultures are known to exist within the City. However, no raptors or raptor nests were observed during the City staff during its site visit. Raptors are protected under federal law. Therefore, a potential exists that residential development construction could disturb nesting raptor species and other nesting birds that may utilize mature oaks and pines within the project site and adjacent land if they are present during construction activities. The following mitigation measure is expected to minimize potential impacts to nesting raptor and other nesting bird species to a less than significant level.

Mitigation Measure

BIO-1: The project proponent for any future residential development on the site shall include the following on the grading plans prior to grading permit issuance. The breeding/nesting season for raptors and other nesting birds is March 1 through August 30. If construction activities take place outside of the breeding/nesting season, no additional measures will be required.

If development of the site for residential purposes, consistent with the development regulations under the proposed HO zone designation, is planned or desired during the breeding season, raptor and other nesting birds nest surveys shall be conducted one week prior to tree cutting or grading near mature trees to ensure that active nests are not present. A qualified biologist shall conduct the surveys and prepare a survey report. If no raptor or other nesting birds' nests are discovered in the trees to be removed, no further mitigation will be required. A written report on the results of the visual surveys shall be submitted to the Planning Division a minimum of 48 hours prior to the beginning of construction activity.

If any active raptor or other nesting birds' nests are discovered during pre-construction surveys, the biologist shall mark all occupied trees and delineate a no construction activity buffer zone around the nests for the duration of the nesting season in accordance with California Department of Fish and Wildlife guidelines for the applicable raptor or other nesting bird species.

The construction contractor shall be responsible for construction scheduling. If construction is planned during the breeding season, the construction contractor shall be responsible for ensuring that a qualified biologist performs the ~~raptor~~ nesting birds' nest surveys within 1 week of planned tree removal. Authorization to proceed with construction activity shall be the discretion of the Planning Division.

This mitigation measure is expected to minimize impacts to nesting ~~raptor~~ bird species to a less than significant level.

Timeframe for Implementation: Prior to issuance of a grading permit.
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services – Planning Division

b, c) No wetlands, marshes, vernal pools, or coastal areas are present on the project site. Hangtown Creek is not part of the project area. There is no riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or the US Fish and Wildlife Service present on or adjacent to the site. In the absence of those on-site or near-site resources,

no direct or indirect project-related impacts to any waters of the United States are anticipated. Therefore, no impacts will occur from this project directly, indirectly or cumulatively.

d) There are no known migratory fish or wildlife species, established native resident or migratory wildlife corridors, or native wildlife nursery sites located on the previously developed subject site that is surrounded by developed residential and commercial improvements and uses. Therefore, no impacts will occur from this project directly, indirectly or cumulatively.

e) To develop the site at the density authorized under the proposed HO zone designation, trees on the site would be expected to be removed. However, the rezone project is a legislative, non-discretionary action that does not involve a residential subdivision of land. The project therefore it is not subject to City Code Section 8-13-4, the City's Woodland Alteration Permit and Plan regulations.

However, there are two General Plan goals and three policies contained within the Natural, Cultural, and Scenic Resources that do address vegetative cover within Placerville:

> *Goal D: To protect Placerville's natural vegetation and diverse wildlife.*
>
> *Policy 3 of Goal D: New development shall be sited to protect native tree species, riparian vegetation, important concentrations of natural plants, and important wildlife habitat, to minimize visual impacts and to provide for continuity of wildlife corridors.*
>
> *Policy 9 of Goal D: The City shall seek to protect and manage Placerville's tree cover to maximize ecological and aesthetic values consistent with the reasonable economic enjoyment of private property. To this end, the City shall adopt and enforce a Historical Tree Ordinance.*
>
> *Goal I: To protect and enhance Placerville's community character and scenic resources.*
>
> *Policy 4 of Goal I: The City shall condition development approvals to protect natural features such as rock outcrops and trees.*

The City of Placerville Development Guide, as amended (2016), contains preservation and protection guidelines for trees, particularly oaks, pines and other native species within hillside area. These guidelines were developed to implement the City of Placerville General Plan goals and policies related to trees, tree cover and open space. Mitigation Measure AGR-1 below would minimize potential impacts to existing trees on the site from future residential development to a less than significant level.

Mitigation Measure

BIO-2: Future residential development on the project site under the Housing Opportunity Overlay provisions shall conform with the guidelines for grading, erosion control, tree preservation and protection within Chapter IX: Hillside Development and Natural Open Space and Chapter X: Existing Trees and Native Plan Material of the City of Placerville Development Guide.

Timeframe for Implementation: Prior to issuance of a building permit. During construction phase.
Responsibility for Implementation: Developer shall submit tree removal plans for Development Services review for conformance with the mitigation measure prior to issuance of a building permit for site improvements.
Oversight of Implementation: Development Services – Engineering and Planning Divisions

f) The project site is not subject to any habitat conservation plans or any other regional plans. Therefore, the proposed project would not conflict with the provisions of any adopted local or regional conservation plans. Therefore, the project will have no impact directly, indirectly or cumulatively.

Sources
City of Placerville Topographic Map (1982)
Placerville Municipal Code, *Zoning Ordinance*
Placerville *Development Guide*
Staff Determination
Staff Field Inspection
Department of Fish & Game California Natural Diversity Database website:
www.dfg.ca.gov/biogeodata/cnddb/

V. CULTURAL RESOURCES. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Analysis

a) Search of the National Register of Historic Places, the California Register and the City's Historic Resources Inventory revealed that the site or vicinity is not listed on these cultural and historic resource inventories.

Within both project site parcels, along and near the top of the cut slope above Cold Springs Road and Placerville Drive at the 1,730' elevation contour, and within a portion of an overhead utility easement that extends parallel with Placerville Drive, are remains of paving materials (concrete, road base, asphalt, etc.) of an abandoned road alignment. See Exhibit A. This alignment follows the elevation contour for an unknown distance to where they terminate on the project site, where site slopes were modified for the development of what are now the Cold Springs Road and Placerville Drive road alignments. The paving remains can be seen from Placerville Drive, approximately 10-15' above Placerville Drive.

A 1930 State of California plan shows the ultimate alignment and profile of the state highway that later became Placerville Drive. This document shows a "Traveled Way" on what is now the project site, north of what became the state highway and Placerville Drive. Exhibit A of this Initial Study contains an excerpt of the 1930 State plan and a 1950 Placerville USGS Quadrangle Map. This Traveled Way alignment appears to correspond

with the abandoned road alignment on the project site above what is now Cold Springs Road and Placerville Drive. It continues westerly, approximating the current Cold Springs Road. Easterly the Traveled Way makes a nearly closed loop northerly around what are now the commercial buildings located at 669-691 Placerville Drive before continuing east toward downtown Placerville. This old road alignment is located on private property with the old paving surface and alignment nearly intact.

According to *Official Map of the Lincoln Highway* from The Lincoln Highway Association website (https://www.lincolnhighwayassoc.org/map/), Lincoln Highway routes through this portion of Placerville are shown as "drivable" and "not driveable." The Lincoln Highway was dedicated in 1913. Placerville Drive is shown on the map as driveable. Immediately east of the project location is a not driveable portion of the Lincoln Highway alignment, it resembles the nearly closed loop Traveled Way shown on the 1930 State of California. For this Initial Study and the analysis of cultural resources, it is inferred from State's 1930 plan that the Traveled Way portion shown within what is now the Project Site was part of the Lincoln Highway alignment prior the state constructing Placerville Drive as US Highway 50.

CEQA requires public or private projects financed or approved by public agencies to assess the effects of the project on cultural resources that might qualify as being historical, as that term is defined by statute. (See Public Resources Code, Section 21084.1.) Potentially historical resources could include buildings, sites, structures, or objects, each of which may have historical, architectural, cultural, or scientific importance. CEQA requires that alternative plans or mitigation measures be considered if a project results in an effect that may cause a substantial adverse change in the significance of an historical resource. Prior to the assessment of effects or the development of mitigation measures, it must first be determined whether a particular resource is "historical." The steps that are taken in a cultural resources investigation for CEQA compliance are as follows:

- Evaluate whether potentially historical resources are in fact historical
- Identify potential historical resources
- Evaluate the effects of a project on all historical resources

CEQA guidelines define three ways that a property can qualify as a significant historical resource for the purposes of CEQA review:

1) if the resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR);
2) if the resource is included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code unless the preponderance of evidence demonstrates that it is not historically or culturally significant; or
3) the lead agency determines the resource to be historically significant or significant in the architectural, educational, social, political, military, or cultural annals of California, as supported by substantial evidence in light of the whole record (California Code of Regulations, Title 14, Division 6, Chapter 3, section 15064.5).

The CRHR was created by the State Legislature in 1992. The eligibility criteria for the CRHR are intended to serve as the definitive criteria for assessing the significance of potential historical resources for purposes of CEQA. For a potential historical resource to be eligible for listing in the CRHR, it must be significant at the local, state, or national level under one or more of the following four criteria:

- is associated with lives of persons important in our past;
- is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- 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; or
- has yielded, or may be likely to yield, information important in prehistory or history.

Historical resources automatically listed in the CRHR include those historic properties listed in, or formally determined eligible for listing in, the National Register. Under federal regulations, a project has an effect on a historic property when the project could alter the characteristics of the property that may qualify the property

for inclusion in the National Register, including alteration of location, setting, or use. A project may be considered to have an adverse effect on a historic property when the effect may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on historic properties include, but are not limited to:

- physical destruction or alteration of all or part of the property;
- isolation of the property from, or alteration of, the property's setting when that character contributes to the property's qualifications for listing in the National Register;
- introduction of visual, audible, or atmospheric elements that are out of character with the property or that alter its setting;
- neglect of a property resulting in its deterioration or destruction; or
- transfer, lease, or sale of the property (36 CFR 800.9).

The paving remains located within the Project Location, inferred to be part of the nation's first transcontinental highway the 1913 original route of the Lincoln Highway, are associated with an action that has made a significant contribution to the broad patterns of California and national history making it a potential historic resource. Due to the current deteriorated condition of the paving artifact, its severed disconnection from the original Lincoln Highway route due to the construction of Placerville Drive (US 50) as a state highway and the current Cold Springs Road alignment, and the recognition by the Lincoln Highway Association of Placerville Drive as the Lincoln Highway route, the potential historic resource would not be eligible for listing in the CRHR or the National Register, as it would not yield important information in Placerville history.

In that the site does not contain cultural or historic resources listed on the National Register of Historic Places, the California Register or the City's Historic Resources Inventory, potential development resulting from the project on the Project Location is considered less than significant.

b). The City notified California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project, and who had requested notification of proposed projects by the City per Section 21080.3.1 of Public Resources Code. The United Auburn Indian Community (UAIC) requested that if tribal cultural resources are identified within the project area, that tribal monitors be present for all ground disturbing activities (Exhibit B). UAIC stated their preference is to preserve tribal cultural resources in place and avoid them whenever possible.

No known archaeological resources were identified in the General Plan for the project site. Therefore, the project would not likely impact an archaeological resource. However, there is the possibility of accidental archaeological discoveries during construction-related ground-disturbing activities. This is considered potentially significant. To address unanticipated and accidental archaeological discoveries, the following mitigation measure is expected to minimize this potential impact to a less than significant level:

Mitigation Measure

CR-1: If, during the course of implementing the project, cultural resources (i.e., prehistoric sites, historic sites, and/or isolated artifacts) are discovered, work shall be halted immediately by the developer. Temporary orange fencing shall be placed by the development contractor around a culturally significant discovery to prevent unnecessary equipment movement inside these areas during and after a discovery. The City of Placerville Development Services Department and the Cultural Resource Manager of the United Auburn Indian Community shall be notified immediately. The development contractor, their agents or assigns shall retain a professional archaeologist, or qualified cultural resource specialist that meets the Secretary of the Interior's Standards and Guidelines for Professional Qualifications in archaeology and/or history. The archaeologist or qualified cultural resource specialist and representatives from the United Auburn Indian Community (UAIC) will ~~assess to determine~~ the significance of any unanticipated discovery and make recommendations for further evaluation and treatment as necessary.

The City shall consider mitigation recommendations presented by a professional archaeologist that meets the Secretary of the Interior's Standards and Guidelines for Professional Qualifications in archaeology and/or history for any unanticipated discoveries. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The project developer / applicant shall be required to implement any mitigation necessary for the protection of cultural resources. For any recommendations made by UAIC or other interested Native American Tribes which are not implemented, a justification for why the recommendation was not followed will be provided into the project record.

Timeframe for Implementation: During grading and construction activities
Responsibility for Implementation: Developer and qualified archaeologist
Oversight of Implementation: Development Services – Engineering and Planning Divisions

c) No known paleontological resources or unique geological features were identified in the General Plan for the project site. There is no indication from soil and geologic information received from the National Resource Conservation Service for this project or the State of California Geologic maps that paleontological resources or unique geologic features exist on the site. The project would not likely impact a paleontological resource or unique geologic features. However, there is the possibility of accidental paleontological discoveries during construction-related ground-disturbing activities. This is considered potentially significant. The following mitigation measure is expected to minimize this potential impact to a less than significant level.

Mitigation Measure

CR-2: If, during the course of site development, any paleontological resources (fossils) are discovered, the project proponent for any future residential development on the site shall notify and the City of Placerville Development Services, Planning Division. At that time, the City will coordinate any necessary investigation of the discovery with a qualified paleontologist with the cost of such investigation born upon the project developer/applicant.

The City shall consider the mitigation recommendations of the qualified paleontologist for any unanticipated discoveries of paleontological resources. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The project applicant shall be required to implement any mitigation necessary for the adequate protection of paleontological resources.

Timeframe for Implementation: During grading and construction activities
Responsibility for Implementation: Developer and qualified paleontologist
Oversight of Implementation: Development Services – Engineering and Planning Divisions

d) There is no indication from the City's General Plan or Historic Resources Inventory that a cemetery or burial area existed on the site. However, in the unlikely event human remains are discovered during ground-disturbing activities, the following mitigation measure is expected to minimize this potential impact to a less than significant level.

Mitigation Measure

CR-3: If, during the course of development of the site, human remains are discovered, all work shall be halted immediately on site, the project proponent for any future residential development on the site shall notify the City of Placerville Development Services, Planning Division; the developer shall contact the El Dorado County Coroner to investigate and determine that no investigation of the cause of death is required. If the Coroner determines the remains are those of a Native American origin, the coroner must notify the California Native American Heritage Commission, who will notify and appoint a Most Likely Descendent (MLD). The MLD will work with a qualified archaeologist to decide the proper treatment of the human remains and any associated cultural objects.

Timeframe for Implementation: During grading and construction activities
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services – Planning Division

Sources

City of Placerville, General Plan
City of Placerville, Historic Resource Inventory
Correspondence with United Auburn Indian Community
The Lincoln Highway Association website: https://www.lincolnhighwayassoc.org/map/
National Park Service, National Register of Historic Places
State of California, California Register and the City's Historic Resources
State of California, Code of Regulations
State of California, Department of Public Works, Division of Highways, *Plan & Profile of State Highway In El Dorado County, between Clarks Corner and Placerville.* July 1930
State of California, Public Resources Code
United States Geological Survey, 1950 Placerville Quadrangle

VI. GEOLOGY AND SOILS. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Analysis

a - i, ii, iii, iv) No Impact. Per the California Department of Conservation, Division of Mines and Geology, there are no Alquist-Priolo Earthquake Fault Zones within the City or El Dorado County. Therefore, the project will have no impact directly, indirectly or cumulatively.

A project site may experience the effects of seismic ground shaking based on the proximity of the site to an earthquake fault, the intensity of the seismic event, and the underlying soils. Although no active faults or Earthquake Fault Zones are located on the project site, an inactive geologic fault is located within one-half mile east of the project site. This pre-Quaternary fault called "Melones" is not expected to involve fault rupture, seismic shaking, ground failure or landslides due to its geologic inactivity. No impacts are anticipated.

b, c) Per the Soil Survey of El Dorado Area, California, the onsite soil types are Boomer – very rocky loam (BkE) and Boomer –gravelly loam (BhD). Permeability of BkE is moderately slow. Surface runoff is rapid. Erosion hazard is high. Surface runoff of BhD is medium. Erosion hazard is slight to moderate.

The following mitigation is expected to minimize the potential impact of slight and moderate to high soil erosion to a less than significant level.

Mitigation Measure

GEO-1 Future residential development on the project site under the Housing Opportunity Overlay provisions shall conform with the City's Grading, Erosion and Sediment Control regulations (Chapter 7, Title VIII of the City Code) and the El Dorado County Resource Conservation District's Erosion Control Requirements and Specifications for all grading activities. Final grading plans must be approved by the City Engineer and the Resource Conservation District prior to any onsite grading. The Applicant shall reimburse the City for associated project costs incurred by the City for any outside consultants, City staff time, and other expenses for special design needs above and beyond normal items covered by the City's fee schedule. Appropriate land rights shall be obtained from the affected property owners as necessary to allow any required grading and/or facilities to be installed outside the site plan boundaries. A copy of the written authorization(s) shall be included with the final improvement plan submittal. An encroachment permit shall be obtained from the City Engineering Division prior to beginning any work on this development within a public right-of-way or easement.

The project proponent for any future residential development on the site must meet the requirements of the Meeting the City's grading, erosion and sediment control regulations and those of the Resource Conservation District, potential impacts from soil erosion will be reduced to less than significant.

Timeframe for Implementation: During grading and construction activities
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services - Engineering Division and Resource Conservation District

d) Expansive soils increase in volume when they absorb water and then shrink upon drying out. Soils with high clay content are subject to soil expansion. Table 18-1-B of the Uniform Building Code establishes numerical expansion indices for soil types ranging from very low to very high. Any soil identified in the foundation investigation to have an expansion index greater than 90 (medium) would require specific engineering analysis as required within the Uniform Building Code.

The Soil Survey of El Dorado - Table 6, lists the shrink-swell potential of each soil series found in the County. The amount of clay within the soil series determines the shrink-swell potential. Soils series with low to moderate shrink-swell potential provide sites adequate for placing structures. Review of the Soil Survey of El Dorado County indicates that the Boomer series that includes BkH and BhD has a low shrink-swell potential. Based upon this review, the impact from expansive soils is less than significant.

e) Residential development of the site would not involve the use of a water disposal system (septic). Placerville Municipal Code would require that a housing development project on the site to connect to a City-approved public sewer system. City sewer service currently serves the neighborhood of Placerville Drive and Cold Springs Road. Therefore, the project will have no impact directly, indirectly or cumulatively.

Sources

City of Placerville General Plan (1990)
United States Department of Agriculture, Soil Conservation Service and Forest Service *Soil Survey of El Dorado County* (1974)
Division of Mines and Geology Special Publication 42, *Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act With Index to Earthquake Fault Zone Maps.*
California Building Code

VII. GREENHOUSE GAS EMISSIONS. Would the project:

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

Analysis

a, b) Less Than Significant ~~Impact~~ with Mitigation Incorporated. Project construction and operation would generate greenhouse gas (GHG) emissions through the burning of fossil fuels or other emissions of GHGs, thus potentially contributing to cumulative impacts related to global climate change. The primary land-use related greenhouse gases (GHG) are carbon dioxide (CO_2), methane (CH_4) and nitrous oxides (N_2O). Estimated emissions are expressed in annual metric tons of carbon dioxide equivalent (CO_2e) units.

The project is an infill location. It is surrounded by existing residential and commercial uses. The site is located within the existing Placerville Drive commercial corridor and walkable to commercial retail and service uses (restaurants, groceries, health and beauty salons, convenience market, movie theater, Boys & Girls Club, etc.), an employment center (El Dorado County Government Center and related services), the El Dorado County Library, and schools (Markham Middle School, El Dorado High School and Vista Continuation School). The site is within 350 feet of two public transit stops. In addition, all new residential development, including the potential residential project, would be required to meet California Building Codes Title 24 Energy Efficiency requirements and its water efficiency requirements of low flow bathroom and kitchen fixtures, and water efficient irrigation system requirements of City Code; Mitigation Measures TRANS-02 and TRANS-06 that are discussed in this Initial Study would require a future housing developer under the Housing Opportunity Overlay provisions to make sidewalk improvements along Middletown Road, Cold Springs Road and Placerville Drive in conjunction with site development meeting General Plan policies by connecting non-motorized improvements to existing pedestrian infrastructure in the project vicinity; these mitigation measures would further the following Objective of Goal 1: Non-Motorized Circulation, of the City of Placerville *Non-Motorized Transportation Plan* that states, "Increase bicycling and walking as a transportation mode to reduce congestion, improve air quality, and improve public health."

It is expected that due to the infill nature of the project and characteristics of the site, the energy efficiency requirements under California Building Code, the mitigation measures TRANS-02 and TRANS-03 of this Initial Study, and mitigation measures GHG-01 and GHG-02 described in this section, would minimize potential impacts from estimated greenhouse gas emissions from development construction and operation to a less than significant level.

Neither the El Dorado County Air Quality Management District nor the City has adopted GHG emission thresholds for land use development projects. An assessment of the project's potential GHG emissions was conducted using the California Emissions Estimation Model (CalEEMod) version 2013.2.2, based on the following assumptions: 1) The maximum development potential assumptions of this Initial Study, 2) An approximate eight-month construction period occurring in 2017, 3) Operation of the project beginning in 2019, and 4) An assumed 30-year life of the project.

As shown in Table 1, the estimated metric tons of carbon dioxide equivalent (CO2e) units generated by construction of expected additional residential development at the project sites is 582 metric tons. Because project-related construction emissions are confined to a relatively short period of time in relation to the overall life of the project, construction emissions are amortized to determine the annual construction related GHG emissions over the life of the project. When amortized over a 30-year period (the assumed life of the project), CO_2e construction emissions equal 19 metric tons per year. Construction-related emissions are based on the maximum expected number of net new housing units at the project sites. The emissions shown in Table 1 are rounded to whole numbers.

Table 1
Estimated Construction Emissions of Greenhouse Gases

Year	Annual Emissions (Carbon Dioxide Equivalent (CO_2e))
2017	515 metric tons
2018	67 metric tons
Total	**582 metric tons**
Amortized over 30 years	**19 metric tons per year**

See Appendix A for CalEEMod Results.

Operational Emissions include area sources, energy use, solid waste, water use, and transportation emissions. The estimated metric tons of carbon dioxide equivalent (CO_2e) units generated by the operation of expected additional residential development at the project sites is 2,060 metric tons.

As shown below in Table 2, the net combined construction and operational emissions at buildout would be 2,079 metric tons before mitigation. The emissions shown are rounded to whole numbers. Full results are shown in Appendix A.

Table 2
Combined Annual Emissions of Greenhouse Gases Before Mitigation

Emission Source	Annual Emissions (CO_2e)
Project Construction	19 metric tons
Operational Emissions	2060 metric tons
Total	**2079 metric tons**

CalEEMod contains mitigation inputs built into the model that may be applied to projects to estimate greenhouse gas emission reductions for a development project. Mitigation applicable to the potential housing development project follows under GHG source categories of *mobile, source, water, energy* and *area*:

Mobile Mitigation
- Increase Density
- Improve Walkability Design
- Improve Pedestrian Network and Connectivity

Water Mitigation
- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

All currently required under Title 24

Energy Mitigation
- Install High Efficiency Lighting
- Install Energy Efficient Appliances Area

Area Mitigation
- Use Low VOC Cleaning Supplies
- Use Low VOC Paint

Source Mitigation
- No Hearths

Estimated annual GHG emissions associated with the potential housing project with the above mitigation incorporated are summarized in Table 3. As shown in the table, the annual GHG emissions associated with the potential housing project would be 2,038 CO_2e with mitigation incorporated.

Table 3
Combined Annual Emissions of Greenhouse Gases After Mitigation

Emission Source	Annual Emissions (CO_2e)
Project Construction	19 metric tons
Operational Emissions	2,019 metric tons
Total	**2,038 metric tons**

The following mitigation measures are incorporated into the project to reduce operation emissions of a future housing project on the project site.

Mitigation Measures

GHG-01: Only low- and non-VOC-containing paints, sealants, adhesives, and solvents shall be utilized in the construction of the Project.

Timeframe for Implementation: During construction activities
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services – Building and Engineering Divisions

GHG-02: All residential units shall be constructed to 2013 Title-24 Energy Efficiency or better requirements. All residential units shall be equipped exclusively with certified ENERGY STAR Appliances. The onsite parking areas shall be equipped with LED lighting with photocell occurrence controls.

Timeframe for Implementation: During construction activities
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services – Building Division

Sources:

California Emissions Estimation Model (CalEEMod) version 2013.2.2
California Building Code
City of Placerville City Code
City of Placerville *Non-Motorized Transportation Plan*
El Dorado County Air Pollution Control District, *Guide to Air Quality Assessment. February 2002*

VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☒	☐	☐

Analysis

a) The project use and construction would not transport, use or store hazardous materials. Therefore, the project will have no impact directly, indirectly or cumulatively.

b, c) Project use and construction would not transport, use or store hazardous materials. Therefore, the project will have no impact directly, indirectly or cumulatively.

d) The project site is not included on a list of hazardous materials sites compiled by the California Department of Toxic Substances Control pursuant to Government Code Section 65962.5. Therefore, the project will have no impact directly, indirectly or cumulatively.

e) Zoning for the site is C (Commercial). The site is not located within the Placerville Airport Influence Area. Therefore, the project will have no impact directly, indirectly or cumulatively to the Placerville Airport or the Placerville Airport Land Use Compatibility Plan.

f) There are no private airstrips within the project vicinity. Therefore, the project will have no impact directly, indirectly or cumulatively.

g) The project proposed zoning amendments and potential future multi-family residential construction and use will not impair implementation of, or physically interfere with, the City of Placerville's Emergency Response Plan. Therefore, the project would have no impact directly, indirectly or cumulatively.

h) Per the Placerville Very High Fire Hazard Area map dated November 17, 2008, the project site is located in the CAL FIRE Very High Fire Severity Zone. Construction of multi-family dwelling units on the site is assumed at the intensity described in this Initial Study based on the proposed rezoning of the site from medium density multi-family residential to high density multi-family residential. Placerville Municipal Code requires that all building construction, including the construction of multi-family residential buildings, meet California Building Code. The following mitigation is expected to minimize the potential impact of moderate to high soil erosion to a less than significant level.

Mitigation Measure

HAZ-1: The project proponent for any future residential development on the site, prior to onsite construction, shall submit to the Placerville Building Division and El Dorado County Fire Protection District for review and permit approval construction plans that adhere to applicable provisions and requirements of the current California Building Code, Code of Regulations, Title 24, Parts 1,2,3,4,5,6,8, 9,10, 11, and any adopted amendments by the City of Placerville to the California Building Code.

Timeframe for Implementation: Prior to onsite construction
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services – Building Division and the El Dorado County Fire Protection District

Sources
Placerville Zoning Ordinance
City of Placerville Emergency Response Plan
California Government Code
Placerville Airport Land Use Compatibility Plan, adopted June 2012.
Department of Forestry and Fire Prevention, *Placerville Very High Fire Hazard Area Map*, 2008
California Building Code

IX. HYDROLOGY AND WATER QUALITY. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☒	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami or mudflow?	☐	☐	☐	☒

Analysis

a, f) Grading and construction associated with future residential development on any of the project sites would require temporary disturbance of surface soils and removal of vegetative cover which could potentially result in erosion and sedimentation on site. Erosion and sedimentation constitute potential water quality impacts attributable to construction activities. Excavated areas along with stockpiles would be susceptible to high rates of erosion from wind and rain. Increased sedimentation in local surface drainage ways is possible if the construction site is not managed properly.

Short-term storm water pollutant discharges would be mitigated through compliance with the applicable National Pollution Discharge Elimination System (NPDES) permitting process, as well as City of Placerville Grading, Erosion and Sediment Control regulations (City Code Section 8-7-1 to 8-7-35) resulting in a less than significant impact. Permittees must verify compliance with permit requirements by monitoring their effluent, maintaining records, and filing periodic reports.

Development of the project sites would disturb more than one acre and would therefore, be required to obtain coverage under an NPDES General Construction permit. The implementation of NPDES permits ensures that a state's mandatory standards for clean water and the federal minimums are met. Coverage with the permit would prevent sedimentation and soil erosion through implementation of a Storm Water Pollution Prevention Plan (SWPPP) and periodic inspections by RWQCB staff. A SWPPP is a written document that describes the construction operator's activities to comply with the requirements in the NPDES permit. Required elements of a SWPPP include (1) site description addressing the elements and characteristics specific to the project site; (2) descriptions of Best Management Practices (BMPs) for erosion and sediment controls; (3) BMPs for construction waste handling and disposal; (4) implementation of approved local plans; and (5) proposed post-construction controls, including a description of local post-construction erosion and sediment control requirements. The SWPPP is intended to facilitate a process whereby the operator evaluates potential pollutant sources at the site and selects and implements BMPs designed to prevent or control the discharge of pollutants in storm water runoff.

During the construction period, any development on the project site would use a series of BMPs to reduce erosion and sedimentation. These measures may include the use of gravel bags, silt fences, hay bales, check dams, hydroseeding, and soil binders. The construction contractor would be required to operate and maintain these controls throughout the duration of on-site construction activities. In addition, the construction contractor would be required to maintain an inspection log and have the log on site to be reviewed by the City and representatives of the Regional Water Quality Control Board (RWQCB). Although adherence to NPDES requirements is required of all development within the City, incorporation of these requirements as mitigation measures HYD-1 through HYD-3 is designed to track both standard requirements and mitigation measures as part of the project's Mitigation Monitoring and Reporting Plan or Program (MMRP). With implementation of the standard construction-related SWPPP BMPs discussed above, water quality impacts from runoff during temporary construction activities and long-term operational activities would be less than significant.

Mitigation Measures

HYD-1: Prior to the issuance of a grading permit by the City of Placerville, the project proponent for any future residential development on the site shall file a Notice of Intent (NOI) with the Central Valley Regional Water Quality Control Board to be covered under the State National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of storm water associated with demolition and construction activities.

Timeframe for Implementation: Prior to issuance of grading permit
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services – Engineering Division and the Central Valley Regional Water Quality Control Board

HYD-2: Prior to the first issuance of a grading permit by the City, the project proponent for any future residential development on the site shall submit to and receive approval from the City of Placerville, a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall include a surface water control plan and erosion control plan citing specific measures to control on- site and off-site erosion during the entire grading and construction period. In addition, the SWPPP shall emphasize structural and nonstructural BMPs to control sediment and non-visible discharges from the site.

Timeframe for Implementation: Prior to issuance of grading permit
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services – Engineering Division

HYD-3: The project proponent for any future residential development on the site shall be responsible for performing and documenting the application of BMPs identified in the SWPPP. Weekly inspections shall be performed on sediment control measures called for in the SWPPP. Monthly reports shall be maintained by the Contractor and available for City inspection. In addition, the Contractor would also be required to maintain an inspection log and have the log on site available for review by the City of Placerville and the representatives of the Regional Water Quality Control Board.

Timeframe for Implementation: Prior to issuance of grading permit
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services – Engineering Division and the Central Valley Regional Water Quality Control Board

b) The City's Municipal Code requires that when a community water service is available to a parcel, and when upon the development of the site for residential purposes, the residential development project must connect to the community water supply. The site and the immediate proximity of the site are served by the El Dorado Irrigation District's water service. Development of the site at the maximum density authorized under the assumed development scenario under the proposed land use classification and zone designation at 24 dwelling units per acre maximum would not cause the use of groundwater for existing or proposed uses. The drilling of wells is not a component of the project. There are no impacts to groundwater.

Future residential development on the proposed project sites would not interfere with groundwater recharge as the sites are not identified as a groundwater recharge area by the City. Development of the project site will increase the amount of impervious surfaces in the City. Development and grading on the site would be subject to the development standards set forth by the City in the Municipal Code. These standards will require the project proponent for any future residential development to provide that post-project flows do not exceed the pre-project condition. Therefore, the proposed zone change would not interfere with groundwater recharge activities for the site. Impacts associated with this issue would less than significant.

c, d, e) Water drainage movements across the project area are generally from north to south. Site drainage due to existing and surrounding topography is expected to remain unchanged as a result of residential development of the site at the density authorized under the assumed development scenario at 24 dwelling units maximum per acre. However all new development construction projects in the City would include specific design BMPs to ensure that no storm water runoff generated on site (i.e., runoff from developed areas) would be allowed to leave the site without pre-treatment for urban pollutants.

Residential development of the site at the assumed development scenario at 24 dwelling units maximum per acre would increase the amount of impervious surfaces due to the construction of buildings, sidewalks, and driveways. This increase in impervious surfaces is anticipated to generate additional storm water flow on the project site. Adherence to and implementation of mitigation measures HYD-4, HYD-5, HYD-6, HYD-7, HYD-8, HYD-9 and HYD-10 would reduce impacts to a less than significant level.

Mitigation Measures
HYD-4: Prior to final design of Storm Drainage systems for the project, a project Drainage Report shall be prepared and submitted to the City Engineer for approval. The Drainage Report shall include all aspects of drainage as discussed herein. The approved Drainage Report will serve as a design guide for the projects drainage system(s). The results of the Drainage Report will be considered in final design and construction requirements of the storm drain system for the proposed development.

HYD-5: Drainage facilities shall be designed and included in the final improvement plan submittal. Drainage and detention facilities shall be designed and constructed to keep post-development flows leaving the site at or below pre-development levels, including increased drainage from public roadway construction. Drainage calculations will be required to show that these conditions are being met. Changes to historical and existing drainage patterns will not be allowed without specific City approval. All areas of concentrated drainage flow shall be contained in a pipeline or improved channel to a City-approved discharge point. This development's drainage calculations and plan shall account for drainage from the adjacent parcels as applicable.

HYD-6: All parking lot and street drainage inlets shall be marked "Do not Dump – Flows to Creek."

HYD-7: Interceptor ditches are required at the top of all slopes and retaining walls or as directed by the City Engineer. Water collected by this ditch shall be taken to a drainage system.

HYD-8: Surface drainage, drainage swales or concentrated lot drainage is not allowed to sheet flow across sidewalks.

HYD-9: Storm drain pipes shall be RCP, HDPE, or other materials as approved by the City Engineer.

HYD-10: As a required compliance measure to the City's MS4 permit (§E.12), this development is required to implement the use of Low impact Design Standards. A list of potential measures is provided in the latest update of the City's Design and Construction Standards Manual, within the Post-Construction Storm Water Management Standards section.

Timeframe for Implementation of HYD 4 through HYD 10: Prior to issuance of grading permit
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services - Engineering and Building Divisions

g, h, i) Per the National Flood Insurance Program, the site is located on Map Number 06017C0752E, Panel 752, effective September 28, 2008, the site is not identified as being within the 100-year flood zone area. Therefore, the project will have no impact directly, indirectly or cumulatively.

j) The site is not located close to an inland body of water or the Pacific Ocean. Therefore, the proposed project would not be impacted by a seiche or tsunami.

Per the City's Health and Safety Element, the project site is not within a seismic hazard area. Therefore, the site would not be impacted by mudflows.

Sources
Placerville Municipal Code
F.E.M.A. Flood Insurance Rate Map, Community Map Number 06017C0752E, Panel 752 (2008)

X. LAND USE AND PLANNING. Would the Project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Physically divide an established community?	☐	☐	☐	☒

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Analysis

a) Physical division of the community typically manifests itself by the construction of a major highway, a storm channel, the closing of roads or the construction of utility transmission lines. The zone change from C (Commercial) to C-HO zone (Commercial – Housing Opportunity Overlay Zone) and the assumed residential development project construction would not construct a highway, storm channel, or the closing of roads or the construction of utility transmission lines. No physical divisions have been identified. No impacts are therefore anticipated.

b) Placerville's adopted Housing Element contains Implementation Program 3: High-Density Development – Unmet Need. Program 3 requires the City to amend the Zoning Map and the General Plan as necessary to meet state housing law requirements and to help implement the 5th Cycle Housing Element by rezoning sufficient acreage to higher density residential to meet the City's unmet Regional Housing Need Allocation for lower-income households.

The site is designated and zoned C (Commercial) by the City of Placerville General Plan Land Use Map and the Zoning Map. The request would amend the Placerville Land Use Map and Zoning Map for the Project Location, adding the HO land use classification and zone designation that would have the capacity to generate multi-family residential development at a minimum density of twenty (20) dwelling units per acre, and a maximum of twenty-four (24) dwelling units per acre.

On April 28, 2009, City Council adopted the *Placerville Drive Development and Implementation Plan* (PDDIP). The adopted PDDIP and its "Preferred Vision Plan Program" guides the future development of the Placerville Drive corridor including new land uses and streetscape improvements. The Project site is located within the PDDIP and envisioned for "Commercial / Retail" land uses. The HO Overlay provisions are optional. As stated, the existing Commercial land use designation and zone classification would not be amended by the project request. Therefore, the project will have no impact directly, indirectly or cumulatively.

c) The proposed project would not conflict with any applicable adopted habitat conservation plan or natural community conservation plan as there is no plan habitat conservation plans exists for site within the City. In the absence of an applicable habitat conservation plan or natural community conservation plan, the project would not result in any conflicts with an adopted habitat conservation plan or natural community conservation plan. Therefore, the project will have no impact directly, indirectly or cumulatively.

Sources

City of Placerville *General Plan* (1990)
2013-2021 Housing Element (2014, as amended)
Placerville Drive Development and Implementation Plan (2009)
Placerville Municipal Code, *Zoning Ordinance*

XI. MINERAL RESOURCES. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Analysis

a, b) The State Geologist Mineral Resource Zone (MRZ) Maps for El Dorado County were reviewed to determine if the project would have potential impacts to mineral resources such lime, salt, gold, silver, sand and gravel. According to the MRZ maps, the project site is not in an area where significant, measured or indicated mineral deposit resources of limestone, salt, sand or gravel are present. Therefore, the project will have no impact directly, indirectly or cumulatively.

Source

California Department of Conservation, California Geological Survey, Mineral Land Classification of El Dorado County, California, CGS Open-File Report 2000-03 (2001)

XII. NOISE. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐

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

Analysis

a, d) Noise generated from equipment, tools, and vehicles used for site clearing, grading, and the construction of multi-family residential structures, parking areas and the installation of landscaping has the potential to cause a temporary increase in the ambient noise level of the site and immediate surroundings. These activities are temporary in that they will not be present upon completion of any multi-family residential development project for the site. The temporary increase is expected to be minimized to a less than significant level upon adherence to the following mitigation measure.

Mitigation Measure

NOI-1: The project proponent for any future residential development on the site shall control all construction related to development on the project site so that it is limited to the hours between 7:00 a.m. and 7:00 p.m., Monday through Saturday. No construction shall be allowed on Sunday, or on City-recognized or federally-recognized holidays. A note to this effect shall be placed on the construction plans.

Timeframe for Implementation: During construction activities
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services – Building and Engineering Divisions

b) During project construction activities ground borne vibration or shaking may be generated from grading equipment and during the deconstruction of the multi-family development. Strict adherence to the time and days specified in Mitigation Measure NOI-1 would limit the ground shaking effects in the project area to a less than significant level.

c) Resident vehicles, the use of landscape maintenance equipment (e.g. mowers, trimmers, blowers) and playing children outdoors at the new multi-family residential uses on the site would expect to increase the ambient noise level for the site and the adjacent Panning Way and Middletown Road residential neighborhoods. The increase is not expected to be substantial from the existing residential and commercial uses located north, west, east and south of the site. Impact is considered less than significant.

e) Placerville Airport is located approximately 3.4 miles east of the site. The site is not situated within the Placerville Airport Influence Area, therefore the project will have no impact directly, indirectly or cumulatively to the Placerville Airport.

f) There are no known private airstrips within the vicinity of the project site. As a result, the project would not expose people residing or working in the project area to excessive noise levels from a private airstrip. Therefore, the project will have no impact directly, indirectly or cumulatively.

Sources
Staff Determination
Placerville Airport Land Use Compatibility Plan
City of Placerville General Plan

XIII. POPULATION AND HOUSING. Would the project:

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

Analysis
a) The site is vacant and is surrounded by existing residential and commercial uses. Existing C (Commercial) zoning for the site was established in the early 1990s to implement the General Plan adopted in 1990. The C zone would permit multi-family residential uses such as apartments provided they are developed above or below the ground floor. The C zone does not establish a minimum or maximum density. Proposed C-HO land use and zoning at the maximum density of 24 dwelling units per acre would have the potential to generate 182 dwelling units on this site. In addition, the adopted the Placerville Drive Development and Implementation Plan (PDDIP) and its "Preferred Vision Plan Program" guide the future development of the Placerville Drive corridor including new land uses and streetscape improvements. The Project site is located within the PDDIP and envisioned for "Commercial / Retail" land uses. The HO Overlay provisions are optional. As stated, the existing Commercial land use designation and zone classification would not be amended by the project request.

Per the 2013-2021 Housing Element, there were 4,677 housing units within the City (US Census 2010) in 2010. The population of Placerville in 2010 was 10,389 (US Census 2010). The Housing Element further indicated that per average the size of a household in 2010 was 2.37 persons (US Census 2010). The potential addition of 182 units on the site would represent a 3.89% increase in the number of housing units, and a 4.1% increase in the City's population. This increase in population is not considered substantial. It that the vacant site is surrounded by existing commercial and residential development; the project would not induce substantial growth directly or indirectly. Therefore, potential impacts if any are considered less than significant.

b) The project site is vacant. The project would therefore not displace existing housing. Therefore, the project will have no impact directly, indirectly or cumulatively.

c) The project site is vacant. The project would therefore not displace people as a result. Therefore, the project will have no impact directly, indirectly or cumulatively.

Sources
Placerville Municipal Code, *Zoning Ordinance*
City of Placerville Zoning Map
City of Placerville General Plan Land Use Map

City of Placerville *2013-2021 Housing Element*
United States 2010 Census

XIV. PUBLIC SERVICES.

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

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☒	☐	☐

Analysis
Fire Protection: The site is located within the El Dorado County Fire Protection District. The District's Station 25, located at 3034 Sacramento St., is 1.08 miles east of the site. Per the Fire District, Station 25 is staffed 24 hours a day, 7 days a week by an Engine Company and a Medic Unit. The engine is staffed with one Captain-EMT or Captain-Paramedic, one Firefighter-EMT or Firefighter-Paramedic, and one Apprentice Firefighter. The medic unit is staffed with a Firefighter-Paramedic and either a second Firefighter-Paramedic or a Firefighter-EMT. Volunteers and off-duty personnel staff other apparatus housed at Station 25 when there needs warrant. Response time to the site would be approximately five minutes. In addition, the California Building Code currently requires that new residential uses provide a fire sprinkler system that would help reduce the impact to fire services. Due to the proximity of the site to existing Station 25, the project would not have impact response times for fire protection services. The project would therefore not necessitate a need for new facilities.

The Fire District developed and the City has adopted a development impact fee for fire services and facilities payable at time of development permit issuance. The impact fee as of the date of this Initial Study is $1.10 per square foot for residential and commercial construction. Potential impacts to fire protection resources; therefore are considered less than significant due to code provisions and the payment of impact fees in effect at the time of permit issuance.

Police Protection: Police services for the site and other areas within the City are provided by the City of Placerville Police Department. The need for a new or expanded police station or a potential degradation of response time or personnel services resulting from the potential residential development is not anticipated in that the Police

Department is located within 1.70 miles east of the site. Therefore, the project will have no impact directly, indirectly or cumulatively.

Schools: Public schools that would serve children residing on the project site include El Dorado High School, Markham Middle School, Schnell School and Sierra School, all located within the City. El Dorado County Office of Education has determined that multi-family development within their school districts can have an impact on their schools and school districts. The Office of Education has implemented school impact fees for this. Standard development procedure requires that concurrently with the issuance of a development permit the project proponent pay El Dorado County Office of Education Mitigation Impact Fees to offset impacts to the local school district. The impact fee as of the date of this Initial Study is $3.36 per square foot for residential construction. Payment of the development fees in effect at the time of development permit issuance is expected to reduce the potential impacts to schools to a less than significant level. In addition, the City conducted an initial consultation request regarding the Project with the Placerville School District but received no response.

Parks: The City has established a Parks and Recreation Facilities Development Fee under Section 8-11-2 of City Code. The intent of the development fee program is for the planning, acquisition, improvement and expansion of public parks, playgrounds and recreation facilities to serve the increasing population of the city and the means of providing additional revenues with which to finance such public facilities. As of the date of this Initial Study, the required park and recreational facilities development fee is $1,320.00 per new residential unit. Payment of the development fees in effect at the time of development permit issuance is expected to reduce the potential impacts to parks to a less than significant level.

Traffic Impact: The City has established a Traffic Mitigation Fee under Section 8-15-1 of City Code. The intent of the fee is that the general plan of the city requires that the city be provided, in a time frame related to its development, with an adequate level of traffic and circulation infrastructure. New development, and the expansion of existing development, within the city imposes a burden on the existing traffic and circulation infrastructure by adding additional traffic and by creating a need for new traffic and circulation infrastructure. Such burdens may vary by the type of land use. As of the date of this Initial Study, the required traffic mitigation fee (traffic impact fee) for multi-family residential development is set at $11,053 per dwelling unit. Payment of the development fee in effect at the time of development permit issuance is expected to reduce the potential traffic impacts to a less than significant level.

Other Public Utilities: The project location and vicinity is served by the City's sewer system. The current City Sewer Master plan shows that there is an existing 6" main adjacent to the side in Middletown Road, and a 6" sewer in front of 621 Placerville Drive, both of which lead to a 20" line downstream. As of the preparation of this Initial Study, the 20" sewer main in Placerville Drive has capacity to accept the additional sewage that will be generated by this potential project.

To ensure housing development under the Housing Opportunity Overlay provisions do not exceed the City's sewer capacity at time of plan submittal, the following mitigation measures are expected to minimize any potential impact to the City's sewer system to a less than significant level.

Mitigation Measures

PSVC-1: The applicant shall complete a sewer study to determine how much flow can be added to the sewer system by this development, and/or how much will need to flow directly into one of the manholes along the 20" mainline. Study shall be submitted to the City Engineer for review and approval prior to design of the onsite and offsite sewer work required to service this development. Replacement and/or upsizing of the existing sewer mains may be required.

Timeframe for Implementation: Prior to issuance of building permit
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services - Engineering Division

PSVC-2: Provide sewer backwater valve installation per EID standards or protect with other method as approved by the City Engineer.

Timeframe for Implementation: Prior to issuance of building permit
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services - Engineering Division

The City has established Capital Improvement Charges (CIC) for new sewer connection services to the City system. New development and the expansion of existing development within the city impose a burden on the City sewer system. As of the date of this Initial Study, the sewer CIC is $5,513.00 per new residential unit. Payment of the CIC in effect at the time of development permit issuance is expected to reduce the potential impacts to the City sewer system to a less than significant level.

Sources
El Dorado County Fire District website: http://eldoradocountyfire.com/
El Dorado County Office of Education website: http://edcoe.org/administrative-services/developer-fees
Placerville City Code
Placerville Drive Development and Implementation Plan
Placerville Sewer Master Plan

XV. RECREATION.

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

Analysis
a-b) Recreation facilities within Placerville include seven public parks (Benham, Gold Bug, Lions, Lumsden, Rotary, Orchard Hill and Duffey), the Placerville Aquatic Center, and a portion of the El Dorado Trail. In addition, the City's Community Services Department is responsible for coordinating an extensive year-round offering of community recreation programs, including contracting with instructors and identifying facilities for the programs. Future residents of the potential residential development at the Project Location would be expected to use the City municipal parks located within the City. Impacts if any are considered less than significant with compliance with the payment of the City's Parks and Recreation Facilities Development Fee under Section 8-11-2 of City Code, as discussed in this Initial Study. The intent of the development fee program is for the planning, acquisition, improvement and expansion of public parks, playgrounds and recreation facilities to serve the increasing population of the city and the means of providing additional revenues with which to finance such public facilities. Potential impacts to recreation are therefore considered less than significant.

Sources
City of Placerville City Code
Placerville Area Parks and Recreation Master Plan (2009)

XVI. TRANSPORTATION/TRAFFIC. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the City for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
e) Result in inadequate emergency access?	☐	☒	☐	☐
f) Result in inadequate parking capacity?	☐	☒	☐	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☒	☐	☐

Analysis
a-b) The roadway network providing project access and circulation are Placerville Drive, Cold Springs Road and Middletown Road. Placerville Drive is a west-east minor arterial that runs from its intersection with US Highway 50 in the west to its intersection with Forni Road in the east. It is primarily two-lane with a center auxiliary lane. Cold Springs Road through Placerville is a two-lane north-south collector that runs from the City limit on the west to its intersection with Placerville Drive at the project site. Middletown Road is a two-lane west to east minor arterial that runs from its intersection with Cold Springs Road on the west to its intersection with Canal Street to the east.

The potential 182 dwelling units (apartments) are expected to generate as many as 6.72 vehicle trips per day per dwelling unit after residential structures are constructed and inhabited. Project traffic generation at project build out is therefore expected to be a maximum of 1,199 vehicle trips per day (Trip Generation Rates from

the 8th Edition of the Institute of Transportation Engineers Report). The project addition of 1,199 vehicle trips would create an increase in vehicle trips at the adjacent Middletown Road, Cold Springs Road and Placerville Drive. As of November 2016, Middletown Road was operating with an average daily traffic (ADT) of 5,000, Cold Springs Road was operating with and ADT of 6,000, and Placerville Drive was operating at an ADT of 13,500. Capacities of these roadways are estimated to be 12,000 on Middletown Road, 14,000 on Cold Springs Road, and 20,000 on Placerville Drive. The project's estimated potential increase of a of 1,199 vehicle trips would not reduce the level of service along Middletown Road, Cold Springs Road or Placerville Drive to an unacceptable service level or exceed the capacity of the street system.

c) The project site is not located within the Placerville Airport Overflight Area as designated by the Placerville Airport Land Use Plan. The Placerville Airport runway is approximately 3.25 miles east of the project site. The airport's elevation is 2,585 feet above sea level. Project site elevations range from approximately 1,725' at Placerville Drive to 1,800' near the northern property boundary with the Panning Way residential neighborhood located within unincorporated El Dorado County. Therefore, there are no impacts to air traffic patterns.

d) The project site is located on an undeveloped site, in a developed area of the City and El Dorado County. No new roads would be constructed with the potential residential development. However, internal circulation driveways within these infill parcels with encroachments with Middletown and Cold Springs Road would be anticipated.

The site is located adjacent to the three-way intersection of Middletown Road, Cold Springs Road and Sleepy Hollow Court, and Placerville Drive and Cold Springs Road. The Middletown Road, Cold Springs Road and Sleepy Hollow Court intersection has existing stop signs and stop bars on all three legs of the intersection. Through traffic eastbound on Cold Springs Road is permitted. The Placerville Drive and Cold Springs Road intersection is a fully signalized with four legs.

An encroachment along Middletown Road opposite and south of Middletown Road's intersection with Poplar Court, and along Cold Springs Road and across from a carpet business and used merchandise business, east of the intersection of Cold Springs Road, Middletown Road and Sleepy Hollow Court is anticipated to serve potential residential development. An exact location of road encroachments would be determined at time of any potential future residential housing development for the site.

Any new internal circulation driveways and parking areas would be required to comply with General Plan Transportation Section policies related to the City's circulation system, and the requirements of the City of Placerville's Municipal Code, which governs development along the City's circulation system.

Applicable General Plan Transportation Section Policies:

> Policy 2. Streets shall be dedicated, widened, extended, and constructed according to the City's Master Street Plan and the street cross-sections shown in the Street Standards figures in Part I. Rights-of-way shall be reserved according to the specifications of the Master Street Plan. Deviations from the street cross-sections shown in Part I shall be allowed based upon a determination by the City Engineer that safe and adequate public access and circulation are preserved by such deviations.
>
> Policy 3. Major circulation improvements should be completed as abutting lands develop or redevelop, with dedication of right-of-way and construction of improvements required as a condition of approval. Where the City may deem it appropriate, a property owner can be allowed to enter into a Frontage Improvement Agreement in lieu of construction of improvements if the majority of the neighborhood or area is presently unimproved. However, the City should require a minimum level of improvements to ensure adequate accessibility for vehicles and emergency equipment.
>
> Policy 5. The City shall ensure that all newly-developing areas are served by at least two means of access.

Municipal Code Section 8-9-3 and 8-9-5 implement the Transportation Section policies requiring the construction of curbs, gutters and sidewalks as lands develop. Compliance with the following mitigation measures would reduce impacts to a less than significant level.

Mitigation Measures

TRANS-1: The applicant shall have a traffic study prepared by a licensed traffic engineering firm to study the effects of this development on these adjacent roadways and intersections, and recommend improvements required to keep these intersections operating at the highest possible levels of services consistent with the resources available and within the limits of technical feasibility at City buildout, including this development. The traffic study shall include recommendations for additional improvements at each of the sites access points over and above street improvements required herein, as it pertains to planned and connecting vehicular pedestrian, bicycle, and transit facilities. The traffic study shall include review of the 45 degree intersection angle between Cold Springs Road and Middletown Road and make recommendations regarding modifications to the existing intersection layout. The traffic study shall be submitted to the City Engineer for review and approval prior to submittal of improvement plans for this development. All work recommended by the final approved traffic study shall be included in the final improvement plans submitted for approval by the City.

Timeframe for Implementation: Prior to issuance of building permit
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services - Engineering Division

TRANS-2: The future developer of the residential development for the site shall in conjunction with said residential development install a sidewalk, curb, gutter and street widening along the Cold Springs Road, Middletown Road and Placerville Drive project site street frontages as described as follows:

(A) PLACERVILLE DRIVE: Placerville Drive along the development's frontage shall be widened to provide a minimum 200' long 12' right turn lane leading to Cold Springs Road and a 5' wide asphalt bike lane in addition to the existing through lane and left turn lane. New curb, gutter, and sidewalk shall be constructed along this frontage. Additional right of way shall be offered to the City for roadway purposes to allow for an additional through lane to be constructed in the future and to allow for necessary slopes and grading, plus an additional 10' for PUE or as approved by the City Engineer. All roadwork on Placerville Drive shall be constructed to a Traffic Index of 8.0.

(B) COLD SPRINGS RD: Cold Springs Road shall be widened along the project frontage to provide a 13' northbound travel lane, a 5' asphalt bike lane, concrete curb, gutter and 4.5' sidewalk, graded slope and slope drainage collection ditch at the bottom. Widths shall be measured from the center of the existing roadway right of way. Right of way shall be offered for dedication for roadway purposes to 1' back of the new sidewalk, a slope easement shall be offered for dedication to 5' back of the top of slope, with an additional 10' PUE from that point. All roadwork on Cold Springs Road shall be constructed to a Traffic Index of 7.0.

(C) MIDDLETOWN RD: Middletown Road shall be widened along the project frontage to provide a 12' eastbound travel lane, a 4' asphalt bike lane, concrete curb, gutter and 4.5' sidewalk, graded slope and slope drainage collection ditch at the bottom. Widths shall be measured from the center of the existing roadway right of way. Right of way shall be offered for dedication for roadway purposes to 1' back of the new sidewalk, a slope easement shall be offered for dedication to 5' back of the top of slope, with an additional 10' PUE from that point. A portion of this work is in El Dorado County jurisdiction and will require County plan review for all work within their jurisdiction. All roadwork in City jurisdiction on Middletown Road shall be constructed to a Traffic Index of 7.0.

Sidewalks shall provide a continuous walkway between the new sidewalk at 655 Placerville Drive, 600 Placerville Drive, 2919 Cold Springs Road, and continuing to the east end of this development on

Middletown Road. Sidewalks shall connect to walkway system internal to the development at several locations. Install ADA-accessible curb tramps at all driveways, curb returns, or as needed on the continuous walkway.

Timeframe for Implementation: Prior to issuance of building permit
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services - Engineering Division

TRANS-3: Provide signing and striping plans and install signing and striping for the project as required by the City Engineer. Striping shall be thermoplastic unless otherwise directed by the City Engineer.

Timeframe for Implementation: Prior to issuance of building permit
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services - Engineering Division

TRANS-4: Future developer shall petition the City Council to call in Frontage Improvement Agreement SFIA#294 for 655 Placerville Drive, the parcel immediately east of this development on Placerville Drive. That agreement calls for 130 lineal feet of curb, gutter, 4.5' sidewalk, and 26' of street widening along that frontage. Street widening required along that parcel may be reduced to match the widths as described above for the Placerville Drive widening requirements.

Timeframe for Implementation: Prior to issuance of building permit
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services - Engineering Division

TRANS-5: Design and construct improvements to the Cold Springs Road/Placerville Drive Traffic Signal to match improvements required herein and as additionally recommended by the traffic study, inclusive of thermoplastic striping as needed.

Timeframe for Implementation: Prior to issuance of building permit
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services - Engineering Division

TRANS-6: Install street lights along all street frontages to City Standards. Submit street lighting plans and details for review and approval.

Timeframe for Implementation: Prior to issuance of building permit
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services - Engineering Division

e) Traffic associated with future construction of street frontage improvements, driveway encroachment improvements and site preparation activities for the project may have a temporary effect on existing traffic circulation patterns. Therefore, it may also affect emergency access. The following mitigation measure would reduce the project's impact on emergency vehicle access to less than significant.

Mitigation Measure

TRANS-7: Construction contractors working on the project sites shall use standard procedures to minimize the length of time that any roadway segments would be temporarily blocked during construction activities. Emergency vehicles shall be able to pass through the project area without obstruction. Final site design would be approved by the El Dorado County Fire Protection District prior to construction permit approval and designed per the Engineering Division and Fire District requirements.

Timeframe for Implementation: During construction activities
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services - Engineering Division; El Dorado County Fire District

f) Onsite parking is a requirement of construction for uses specified under the City's Parking Regulations (Section 10-4-4 of the Zoning Ordinance). Multi-family residential uses are required under these regulations to have a minimum of 1.5 parking stalls for each multi-family residential unit. Under the site's development potential of 182 potential multi-family units, a total of 273 onsite parking spaces would be required. To ensure adequate parking is provided for the future residential development onsite the following mitigation measure would eliminate potential inadequate parking capacity to less than significant level.

Mitigation Measure
TRANS-8: The developer of the residential development for the site shall adhere, construct and maintain parking for multi-family dwellings to comply with the parking regulations within Section 10-4-4(E)20 of City Code at a ratio of 1.5 parking spaces per dwelling unit; each driveway, parking stall and/or all parking lot for potential residential development on site shall be graded, surfaced and drained meeting Section 10-4-4(D)1 of City Code; the layout of parking stalls and parking aisles shall comply with Section 10-4-4(C) of City Code. The developer shall submit parking and circulation plans to the Development Services Department for review and approval by the Department in accordance with City Code. Said plans shall also require approval by the El Dorado County Fire District for compliance with Fire Code. Vehicle parking shall only be allowed where shown on City approved construction plans for the residential development.

Timeframe for Implementation: Prior to issuance of building permit
Responsibility for Implementation: Developer
Oversight of Implementation: Development Services- Engineering and Planning Divisions

g) The El Dorado County Transit Authority (El Dorado Transit) serves the project vicinity with two stops. One of the stops is located approximately 250 feet westerly of the intersection of Cold Springs Road, Sleepy Hollow Court and Middletown Road. The second is located approximately 350 feet westerly of the intersection of Cold Springs Road and Placerville Drive.

The *City of Placerville Non-Motorized Transportation Plan* (2010) contains goals, policies and implementation improvements that were adopted to provide a safe, efficient, and convenient network of non-motorized facilities that establish alternative transportation as a viable option in the City.

Goal 3.2.3. Implementation and Maintenance: Identify detail and prioritized improvements in the City of Placerville Non-Motorized Transportation Plan.

Policy 3c: Review all new developments for consideration of bicycle and pedestrian needs and linkages, except where prohibited by topography or safety considerations.

Goal 3.2.4. Land Use Development: Integrate bicycle and pedestrian planning with other regional and community planning, including land use and transportation. The stated objective of this goal is to strongly consider the needs of the bicycle and pedestrian systems identified in the Non-Motorized Transportation Plan when reviewing new development, redeveloping, and construction projects, and incorporate those needs into such projects whenever feasible. Policies 4a, 4b and 4c were developed to implement this objective.

Policy 4a states: Examine the adopted land use element to determine areas of potential growth and development in the City. Consider possible impacts any new or re-developing projects may have on the non-motorized system, including the analysis of a need for through routes in subdivisions.

Policy 4b states: Develop policies for new developments which ensure that non-motorized user's needs are incorporated into new subdivisions or commercial areas; including providing access points to existing and proposed bicycle and pedestrian facilities, on-street facilities for bicycles and, whenever feasible, grade separations at roadway crossings where new streets will cross existing and proposed bikeways.

Policy 4c: Where applicable, enforce the City's Street Frontage Improvement Ordinance to ensure connectivity in the City's pedestrian system.

The Non-Motorized Transportation Plan further proposes Class II bicycle lanes improvements along the project site's frontages with Middletown Road and Cold Springs Road. A Class II bicycle lane currently exists along the project's full Placerville Drive frontage width. Class II improvements along Middletown Road and Cold Springs Road would provide residential development of the project site under the HO Overlay provisions with access linkage to the existing Class II improvements along the Placerville Drive corridor, with further connection to lower Main Street and the El Dorado Trail to the east. Installation of these facilities by a housing developer of the site would provide an alternative transportation option for residents within a housing development authorized under the HO Overlay provisions meeting Policies 3c, 4a and 4b of the Non-Motorized Transportation Plan.

The General Plan Transportation Section contains a goal and three policies regarding pedestrian circulation within the City. These are as follows:

Goal F: To promote convenient and safe pedestrian circulation.

Policy 3. In approving development projects, the City shall continue to require the construction of sidewalks connecting major pedestrian destinations, such as schools, hospitals and government centers.

Policy 5. The City shall require all development with a density of R1-20,000 [maximum density 2.18 dwelling units per acre] or greater to provide a sidewalk on at least one side of any street that is developed as part of the project or is used as a perimeter street by that project.

Policy 6. The City shall require all multi-family developments to provide sidewalks on both sides of any street that is developed as part of the project and on one side of any street that is used as a perimeter street by that project.

City of Placerville Pedestrian Circulation Plan (2007) was adopted by City Council as an extension of the Non-Motorized Transportation Plan, addresses non-motorized pedestrian circulation within the City. The Pedestrian Circulation Plan includes planned sidewalk improvements along numerous streets within the City, including the project site's perimeter streets of Middletown Road, Cold Springs Road and Placerville Drive (Area Index Maps – Area 1: Placerville Drive & Vicinity and Area 2: Canal Street & Vicinity). Along Middletown Road, the side of the road for the pedestrian improvements has not been determined. Along Cold Springs Road and Placerville Drive, the side proposed for sidewalks is the side fronting the project site.

To eliminate potential conflicts with the bicycle and pedestrian circulation goals and policies of the General Plan and the Non-Motorized Transportation Plan the developer shall meet mitigation measure TRANS-01, TRANS-02 and TRANS-04, in Section XVI (d) of this Initial Study.

Sources

Institute of Transportation Engineers Report, *Trip Generation Rates* (7th Edition)
General Plan Transportation Element, Land Use / Circulation Element, Health and Safety
Placerville Airport Land Use Compatibility Plan
City of Placerville, *Non-Motorized Transportation Plan*

XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☒	☐	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☒	☐	☐

Analysis

a, b, e) Due to the size and scope of the potential residential development of 182 dwelling units, anticipated wastewater usage for the potential uses are not expected to impact the City's local treatment or distribution facilities, or require the expansion of new water or wastewater treatment facilities. The City has adequate wastewater treatment plant capacity to serve the project. Domestic water service is available within Middletown Road, Cold Springs Road and Placerville Drive that are adjacent to the site. Therefore, the project will have no impact directly, indirectly or cumulatively.

c) Due to the size and scope of the potential residential development of 182 dwelling units, that includes the creation of impervious surfaces from buildings, driveways and parking areas, the development of an onsite

storm water drainage system will be necessary to convey development storm water to the City's existing storm water discharge points located along Placerville Drive. To ensure any future potential residential development on the site would not result or potentially cause significant environmental effects, the following mitigation measure is incorporated:

> **Mitigation Measure**
> **UTIL-1**: The project proponent for any future residential development shall prepare and submit a Final Drainage Study for review and approval by the City Engineer as part of the final improvement plans. Drainage facilities shall be designed and included in the final improvement plan submittal consistent with the Final Drainage Study. Design and construct drainage and detention facilities as recommended in the final drainage study in order to keep post development flows leaving the site at or below pre development levels. Changes to historical and existing drainage patterns will not be allowed without specific City approval. All areas of concentrated drainage flow shall be contained in a pipeline or improved channel to a City-approved discharge point. Conformance with the recommendations contained in said drainage study shall be required.
>
> **Timeframe for Implementation:** Prior to issuance of building permit
> **Responsibility for Implementation:** Developer
> **Oversight of Implementation:** Development Services - Engineering Division

d) Due to the size and scope of the potential residential development on the project site resulting from the C-HO land use and zone designation development regulations, expected water usage is not anticipated to cause the need for new local or regional water supply.

Per the General Plan EIR, all areas within the General Plan Area ultimately rely on the El Dorado Irrigation District (EID) for water supply, as water is provided directly by EID or provided by EID to the City for distribution. Under the General Plan EIR, the water consumption estimate from full buildout under the General Plan would equal 1.7 million gallons per day. According to the City's Finance Department, the daily consumption of water within the City in 2015 was 656,000 gallons per day, or approximately one million gallons less than estimated at full buildout.

Applicable General Plan policies to this project regarding the City's water system are as follows:

> Policy 1. The City shall work with the El Dorado Irrigation District to develop new water storage facilities and major distribution lines as necessary to serve new developments.
>
> Policy 2. The City will continue its program of upgrading water lines to provide adequate water supply and fire flow rates.
>
> Policy 3. The City shall promote water conservation both in City operations and private development to minimize the need for the use of additional water supplies and to minimize sewer flows.

Under standard development procedure, the site developer would be required to meet EID requirements and pay connection fees as applicable to a potential housing development. EID requirements include filing a request for a Facility Improvement Letter (FIL) from the District. ~~The FIL will discuss the ability by EID to meet the fire flow requirements from the El Dorado County Fire District, and what off-site improvements may be required. As of the preparation of this Draft Initial Study, the City has filed a FIL request to EID for the project site based on the construction assumptions discussed in this Initial Study but has not yet received a response. This subsection will be amended upon receipt of EID's FIL to include, in any, necessary improvements to EID service to accommodate the Project.~~ EID issued a FIL dated December 12, 2016 (Exhibit C) that states that as of January 1, 2016, there were 12,537 equivalent dwelling units (EDUs) available in the Western/Eastern Water Supply Region. The project's 182-units would require 136.5 EDUs. There is an existing 8-inch water line located in Cold Springs Road, a 10-inch water line located in Placerville Drive, and a 6-inch water line located in Middletown Road. The FIL stated that the existing water system must be

connected with the proper extensions to all three water lines constructed to meet EID specifications can deliver the minimum fire flow requirement by the El Dorado County Fire District of the project (1,625 gallons per minute for a 3-hour duration while maintaining a 20-pounds per square inch residual pressure).

To ensure any future potential residential development on the site meets design and construction specifications by the El Dorado Irrigation District for water delivery, adherence with Mitigation Measure AES-1 in Section I of this Initial Study would reduce potential impacts to a less than significant level.

In addition, the City has adopted the California Building Code that includes energy efficient requirements within residential housing construction involving low flow bathroom and kitchen devices. Also the City's Water Efficient Landscape Regulations require the installation and maintenance of water conserving landscaping and irrigation equipment on new residential and commercial development projects. Due to City construction requirements and regulations, the potential impacts from water usage by the potential housing development are considered less than significant.

f) The City of Placerville has a franchise agreement with Waste Connections Inc., doing business as El Dorado Disposal Services, to provide solid waste disposal within the City. Solid waste collected by Waste Connections is transferred to landfills in Stockton and Sacramento where capacity exists to serve the site and development. Therefore, the project will have no impact directly, indirectly or cumulatively.

g) The City of Placerville has a franchise agreement with Waste Connections, Inc., doing business as El Dorado Disposal Services, to provide solid waste disposal within the City. Residential solid waste pickup is required by the City of Placerville under Section 7-1A-3 of Municipal Code. To ensure that future residential development of the site meets the requirement of Section 7-1A-3 the following mitigation measure is incorporated.

Mitigation Measure

UTIL-2: The future developer of the residential development for the site shall subscribe to and thereafter use regularly the collection service franchised by the city of Placerville.

Timeframe for Implementation: During operation of development facility
Responsibility for Implementation: Property owner
Oversight of Implementation: Development Services – Planning Division and Code Enforcement Division

Sources
California Building Code
City of Placerville Municipal Code
Staff consultation with the El Dorado Irrigation District
Staff consultation with the City of Placerville, City Engineer
Staff consultation with the City of Placerville, Director of Finance

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
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?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Analysis

a) Based on the analysis contained in this Initial Study, impacts to Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Mineral Resources, Population and Housing, Public Services, Recreation, Transportation/Traffic, Utilities and Service Systems would have a less than significant on the environment.

Impacts to Aesthetics (site design, development appearance and construction and lighting) would be significant unless mitigated. Therefore, Mitigation Measures AES-1 and AES-2 are required of the project. Impacts

Impacts to Biological Resources (tree cover, nesting birds) would be significant unless mitigated. Mitigation Measures BIO-1 and BIO-2 are required of the project.

Impacts to Cultural Resources (archeological and paleontological) would be significant unless mitigated. Mitigation Measures CR-1 through CR-3 are required of the project.

Impacts to Geology and Soils (erosion and sediment control) would be significant unless mitigated. Therefore, Mitigation Measure GEO-1 is required of the project.

Impacts to Hazards and Hazardous Materials (soil erosion) would be significant unless mitigated. Mitigation Measure HAZ-1 is required of the project.

Impacts to Hydrology and Water Quality would be significant unless mitigated. Therefore, Mitigation Measures HYD-1 through HYD-10 are required of the project.

Impacts from Noise (temporary construction activity) would be significant unless mitigated. Mitigation Measure NOI-1 is required of the project.

Impacts to Public Services (sewer flow and sewer backflow valve design) would be significant unless mitigated. Mitigation Measures PSVC-1 and PSVC-2 are required of the project.

Impacts to Transportation and Traffic (street frontage and street improvements, parking) would be significant unless mitigated. Therefore, Mitigation Measures TRANS-1 through TRANS-8 are required of the project.

Impacts to Utilities and Service Systems (drainage) would be significant unless mitigated. Mitigation Measure UTIL-1 is required of the project.

The implementation and mitigation monitoring of the Mitigation Measures identified above would result in less than significant impacts to Aesthetics, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Public Services, Transportation and Traffic, and Utilities and Service System.

b) Per the 2013-2021 Housing Element, there were 4,677 housing units within the City (US Census 2010) in 2010. The population of Placerville in 2010 was 10,389 (US Census 2010). The Housing Element further indicated the average size of the household in 2010 was 2.37 persons (US Census 2010). Maximum density build-out at the 24 du/acre density for the Project Location is 182 residential units. These units would represent a 3.89% increase in the number of housing units and a 4.15% increase in the City's population. However, the resultant 4,859 total of units (2010 Department of Finance: 4,677 units + 182 maximum project yield units) would not exceed the General Plan EIR projected residential build-out of 9,005 dwelling units. This increase in population and housing units is therefore not considered substantial on a project specific basis or under a cumulative impact scenario.

c) Based on the analysis contained in this Initial Study and the mitigation measures for Section III: Air Quality, Section VI: Geology and Soils, Section VIII: Hazards and Hazardous Materials, Section IX: Hydrology and Water Quality, Section XII: Noise, Section XIV: Public Services, Section XVI: Transportation/Traffic and Section XVII: Utilities and Service Systems the mitigation measures incorporated are expected to minimize potential environmental impacts to a less than significant level.

Exhibits

A. Lincoln Highway Figures

B. United Auburn Indian Community Consultation

C. El Dorado Irrigation District Facility Improvement Letter

Draft Mitigated Negative Declaration – Initial Study
GPA 16-03, ZC 16-04, EA 16-01

Exhibit A:
Lincoln Highway Figures

Exhibit A

Figure 1. Paving Remnants on the Project Location (Source: 2016 City image)

Figure 2. Paving Remnants as Seen From Placerville Drive (Source: Google Maps)

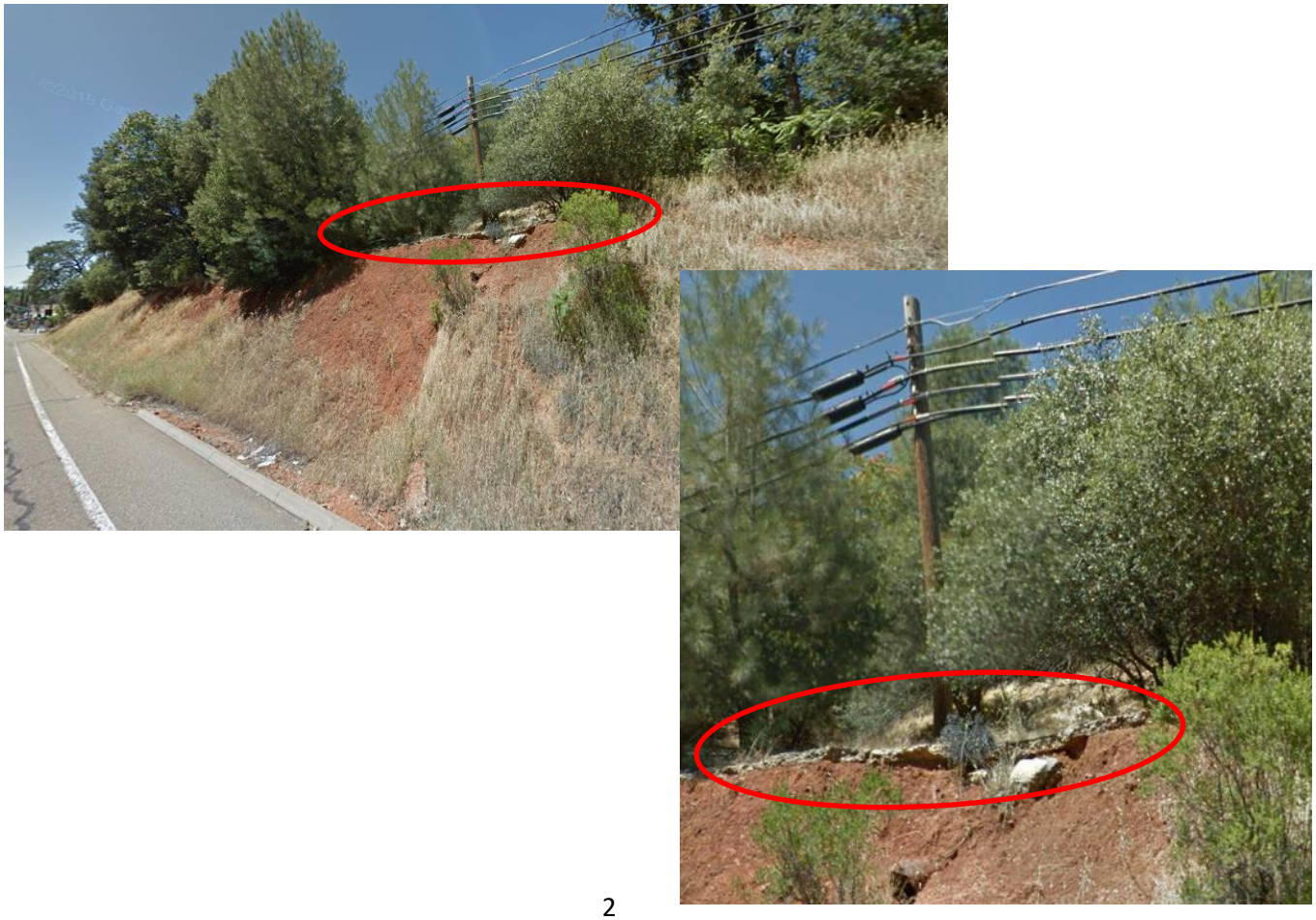


Figure 2. State Highway Plan & Profile exhibit excerpt (State of California Department of Public Works, Division of Highways, *Plan and Profile of State Highway In El Dorado County Between Clarks Corner and Placerville*. 1930)

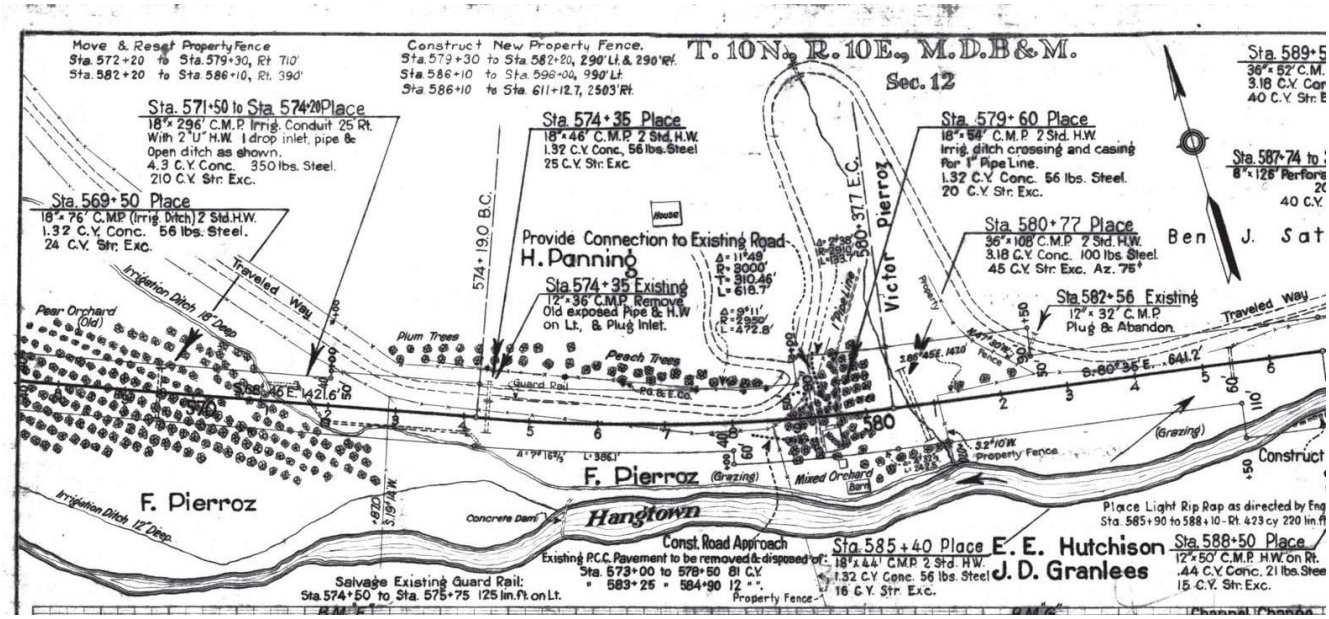
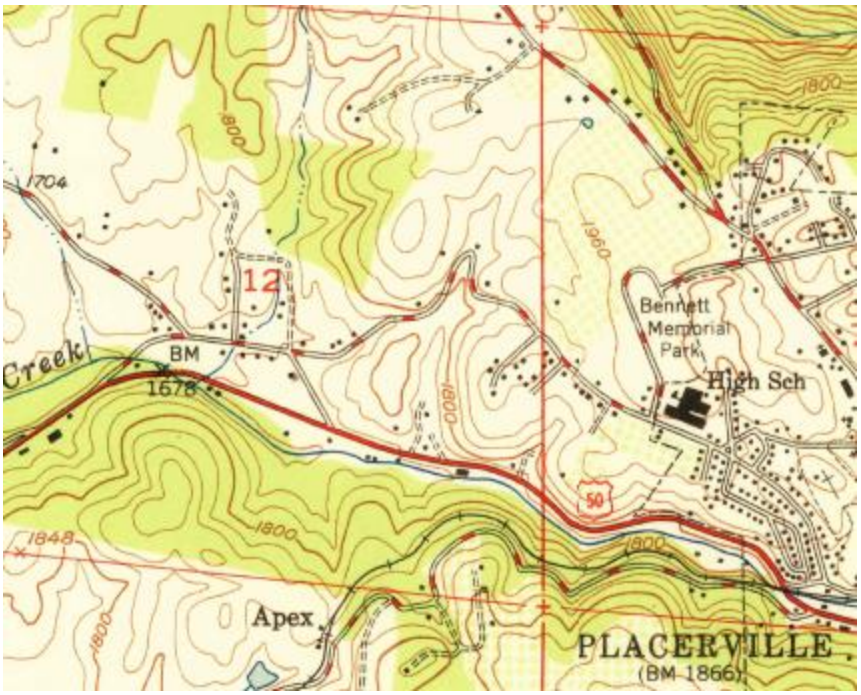


Figure 3. Excerpt of 1950 USGS Placerville Quadrangle Showing Placerville Drive as US 50 in the Project Vicinity.



Draft Mitigated Negative Declaration – Initial Study

GPA 16-03, ZC 16-04, EA 16-01

Exhibit B:

Project Greenhouse Gas Emissions, November 2016

GPA 16-04 ZC 16-05 EA 16-01 - Housing Element Program 3 Implementation Rezone

El Dorado County – Mountain Counties Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	182.00	Dwelling Unit	7.60	128,000.00	431

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	1			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage is total parcel area for APN 323-570-01 and 323-570-37. Total square feet of four buildings of three stories each. Population based on 2.37 average household size per City of Placerville 2013-2021 Housing Element.

Construction Phase - Parcels are vacant. No demolition necessary.

Off-road Equipment - Parcels are vacant. No demolition necessary.

Grading - Site disturbance estimate of construction assumption.

Woodstoves - Project assumptions are that apartments would have no woodstoves or fireplaces of any type.

Land Use Change -

Sequestration - Tree planting anticipated as a result of street tree installation and landscape aesthetics.

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation - Housing Opportunity Overlay provisions call for energy and water efficiency to be implemented in project design.

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	182,000.00	128,000.00
tblLandUse	LotAcreage	11.38	7.60
tblLandUse	Population	486.00	431.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

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					
2017	0.4967	4.0746	3.7534	6.0800e-003	0.3265	0.2464	0.5729	0.1290	0.2305	0.3595	0.0000	513.4675	513.4675	0.0929	0.0000	515.4179
2018	0.8537	0.4480	0.4472	8.0000e-004	0.0204	0.0262	0.0466	5.4400e-003	0.0245	0.0300	0.0000	66.4996	66.4996	0.0132	0.0000	66.7757
Total	**1.3504**	**4.5225**	**4.2006**	**6.8800e-003**	**0.3468**	**0.2726**	**0.6195**	**0.1344**	**0.2551**	**0.3895**	**0.0000**	**579.9672**	**579.9672**	**0.1060**	**0.0000**	**582.1936**

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					
2017	0.4967	4.0745	3.7534	6.0800e-003	0.3265	0.2464	0.5729	0.1290	0.2305	0.3595	0.0000	513.4671	513.4671	0.0929	0.0000	515.4175
2018	0.8537	0.4480	0.4472	8.0000e-004	0.0204	0.0262	0.0466	5.4400e-003	0.0245	0.0300	0.0000	66.4996	66.4996	0.0132	0.0000	66.7756
Total	**1.3504**	**4.5225**	**4.2006**	**6.8800e-003**	**0.3468**	**0.2726**	**0.6195**	**0.1344**	**0.2551**	**0.3895**	**0.0000**	**579.9667**	**579.9667**	**0.1060**	**0.0000**	**582.1932**

	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**

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	0.6377	0.0219	1.8862	1.0000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	3.0659	3.0659	3.0100e-003	0.0000	3.1291
Energy	0.0131	0.1117	0.0475	7.1000e-004		9.0300e-003	9.0300e-003		9.0300e-003	9.0300e-003	0.0000	319.7135	319.7135	0.0111	4.1500e-003	321.2335
Mobile	0.7074	1.9182	8.6051	0.0232	1.6462	0.0282	1.6744	0.4410	0.0260	0.4670	0.0000	1,663.5194	1,663.5194	0.0632	0.0000	1,664.8472
Waste						0.0000	0.0000		0.0000	0.0000	16.9944	0.0000	16.9944	1.0043	0.0000	38.0856
Water						0.0000	0.0000		0.0000	0.0000	4.1954	24.7999	28.9953	0.0156	9.3600e-003	32.2223
Total	**1.3582**	**2.0518**	**10.5388**	**0.0240**	**1.6462**	**0.0476**	**1.6938**	**0.4410**	**0.0454**	**0.4864**	**21.1898**	**2,011.0986**	**2,032.2884**	**1.0972**	**0.0135**	**2,059.5176**

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	0.6004	0.0219	1.8862	1.0000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	3.0659	3.0659	3.0100e-003	0.0000	3.1291
Energy	0.0131	0.1117	0.0475	7.1000e-004		9.0300e-003	9.0300e-003		9.0300e-003	9.0300e-003	0.0000	319.7135	319.7135	0.0111	4.1500e-003	321.2335
Mobile	0.7019	1.8826	8.4658	0.0227	1.6108	0.0277	1.6385	0.4316	0.0255	0.4570	0.0000	1,628.6231	1,628.6231	0.0620	0.0000	1,629.9247
Waste						0.0000	0.0000		0.0000	0.0000	16.9944	0.0000	16.9944	1.0043	0.0000	38.0856
Water						0.0000	0.0000		0.0000	0.0000	3.3563	20.8979	24.2542	0.0125	7.5000e-003	26.8437
Total	**1.3153**	**2.0161**	**10.3995**	**0.0236**	**1.6108**	**0.0470**	**1.6579**	**0.4316**	**0.0449**	**0.4764**	**20.3507**	**1,972.3004**	**1,992.6511**	**1.0930**	**0.0117**	**2,019.2165**

	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	**3.16**	**1.74**	**1.32**	**2.00**	**2.15**	**1.18**	**2.12**	**2.15**	**1.15**	**2.05**	**3.96**	**1.93**	**1.95**	**0.39**	**13.77**	**1.96**

2.3 Vegetation

Vegetation

		CO2e
Category	tons	MT
New Trees		0.0000
Vegetation Land Change		-51.4800
Total		**-51.4800**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/27/2017	5	20	
2	Site Preparation	Site Preparation	1/28/2017	2/10/2017	5	10	
3	Grading	Grading	2/11/2017	3/10/2017	5	20	
4	Building Construction	Building Construction	3/11/2017	1/26/2018	5	230	
5	Paving	Paving	1/27/2018	2/23/2018	5	20	

6	Architectural Coating	Architectural Coating	2/24/2018	3/23/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 259,200; Residential Outdoor: 86,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	131.00	19.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	26.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

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	0.0405	0.4270	0.3389	4.0000e-004		0.0213	0.0213		0.0198	0.0198	0.0000	36.6182	36.6182	0.0101	0.0000	36.8292
Total	**0.0405**	**0.4270**	**0.3389**	**4.0000e-004**		**0.0213**	**0.0213**		**0.0198**	**0.0198**	**0.0000**	**36.6182**	**36.6182**	**0.0101**	**0.0000**	**36.8292**

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	5.0000e-004	7.7000e-004	7.8600e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4016	1.4016	7.0000e-005	0.0000	1.4031
Total	**5.0000e-004**	**7.7000e-004**	**7.8600e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4016**	**1.4016**	**7.0000e-005**	**0.0000**	**1.4031**

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	0.0405	0.4270	0.3389	4.0000e-004		0.0213	0.0213		0.0198	0.0198	0.0000	36.6182	36.6182	0.0101	0.0000	36.8291
Total	**0.0405**	**0.4270**	**0.3389**	**4.0000e-004**		**0.0213**	**0.0213**		**0.0198**	**0.0198**	**0.0000**	**36.6182**	**36.6182**	**0.0101**	**0.0000**	**36.8291**

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	5.0000e-004	7.7000e-004	7.8600e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4016	1.4016	7.0000e-005	0.0000	1.4031
Total	**5.0000e-004**	**7.7000e-004**	**7.8600e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4016**	**1.4016**	**7.0000e-005**	**0.0000**	**1.4031**

3.3 Site Preparation - 2017

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0242	0.2588	0.1970	2.0000e-004		0.0138	0.0138		0.0127	0.0127	0.0000	18.1577	18.1577	5.5600e-003	0.0000	18.2745
Total	**0.0242**	**0.2588**	**0.1970**	**2.0000e-004**	**0.0903**	**0.0138**	**0.1041**	**0.0497**	**0.0127**	**0.0623**	**0.0000**	**18.1577**	**18.1577**	**5.5600e-003**	**0.0000**	**18.2745**

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	3.0000e-004	4.6000e-004	4.7200e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8410	0.8410	4.0000e-005	0.0000	0.8419
Total	**3.0000e-004**	**4.6000e-004**	**4.7200e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8410**	**0.8410**	**4.0000e-005**	**0.0000**	**0.8419**

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0242	0.2588	0.1970	2.0000e-004		0.0138	0.0138		0.0127	0.0127	0.0000	18.1577	18.1577	5.5600e-003	0.0000	18.2745
Total	**0.0242**	**0.2588**	**0.1970**	**2.0000e-004**	**0.0903**	**0.0138**	**0.1041**	**0.0497**	**0.0127**	**0.0623**	**0.0000**	**18.1577**	**18.1577**	**5.5600e-003**	**0.0000**	**18.2745**

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	3.0000e-004	4.6000e-004	4.7200e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8410	0.8410	4.0000e-005	0.0000	0.8419
Total	**3.0000e-004**	**4.6000e-004**	**4.7200e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8410**	**0.8410**	**4.0000e-005**	**0.0000**	**0.8419**

3.4 Grading - 2017

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					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0346	0.3598	0.2538	3.0000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	27.6117	27.6117	8.4600e-003	0.0000	27.7893
Total	**0.0346**	**0.3598**	**0.2538**	**3.0000e-004**	**0.0655**	**0.0204**	**0.0859**	**0.0337**	**0.0188**	**0.0524**	**0.0000**	**27.6117**	**27.6117**	**8.4600e-003**	**0.0000**	**27.7893**

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	5.0000e-004	7.7000e-004	7.8600e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4016	1.4016	7.0000e-005	0.0000	1.4031
Total	**5.0000e-004**	**7.7000e-004**	**7.8600e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4016**	**1.4016**	**7.0000e-005**	**0.0000**	**1.4031**

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					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0346	0.3598	0.2538	3.0000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	27.6117	27.6117	8.4600e-003	0.0000	27.7893
Total	**0.0346**	**0.3598**	**0.2538**	**3.0000e-004**	**0.0655**	**0.0204**	**0.0859**	**0.0337**	**0.0188**	**0.0524**	**0.0000**	**27.6117**	**27.6117**	**8.4600e-003**	**0.0000**	**27.7893**

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	5.0000e-004	7.7000e-004	7.8600e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4016	1.4016	7.0000e-005	0.0000	1.4031
Total	**5.0000e-004**	**7.7000e-004**	**7.8600e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4016**	**1.4016**	**7.0000e-005**	**0.0000**	**1.4031**

3.5 Building Construction - 2017

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	0.3258	2.7726	1.9036	2.8100e-003		0.1870	0.1870		0.1757	0.1757	0.0000	251.4531	251.4531	0.0619	0.0000	252.7527
Total	**0.3258**	**2.7726**	**1.9036**	**2.8100e-003**		**0.1870**	**0.1870**		**0.1757**	**0.1757**	**0.0000**	**251.4531**	**251.4531**	**0.0619**	**0.0000**	**252.7527**

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	0.0248	0.1841	0.3184	5.3000e-004	0.0149	2.8700e-003	0.0177	4.2500e-003	2.6400e-003	6.8800e-003	0.0000	47.4545	47.4545	3.5000e-004	0.0000	47.4617
Worker	0.0456	0.0703	0.7212	1.7900e-003	0.1515	1.0600e-003	0.1525	0.0403	9.8000e-004	0.0413	0.0000	128.5282	128.5282	6.3900e-003	0.0000	128.6624
Total	**0.0704**	**0.2544**	**1.0396**	**2.3200e-003**	**0.1663**	**3.9300e-003**	**0.1703**	**0.0445**	**3.6200e-003**	**0.0481**	**0.0000**	**175.9827**	**175.9827**	**6.7400e-003**	**0.0000**	**176.1242**

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	0.3258	2.7726	1.9036	2.8100e-003		0.1870	0.1870		0.1757	0.1757	0.0000	251.4528	251.4528	0.0619	0.0000	252.7524
Total	**0.3258**	**2.7726**	**1.9036**	**2.8100e-003**		**0.1870**	**0.1870**		**0.1757**	**0.1757**	**0.0000**	**251.4528**	**251.4528**	**0.0619**	**0.0000**	**252.7524**

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	0.0248	0.1841	0.3184	5.3000e-004	0.0149	2.8700e-003	0.0177	4.2500e-003	2.6400e-003	6.8800e-003	0.0000	47.4545	47.4545	3.5000e-004	0.0000	47.4617
Worker	0.0456	0.0703	0.7212	1.7900e-003	0.1515	1.0600e-003	0.1525	0.0403	9.8000e-004	0.0413	0.0000	128.5282	128.5282	6.3900e-003	0.0000	128.6624
Total	**0.0704**	**0.2544**	**1.0396**	**2.3200e-003**	**0.1663**	**3.9300e-003**	**0.1703**	**0.0445**	**3.6200e-003**	**0.0481**	**0.0000**	**175.9827**	**175.9827**	**6.7400e-003**	**0.0000**	**176.1242**

3.5 Building Construction - 2018

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	0.0267	0.2326	0.1753	2.7000e-004		0.0149	0.0149		0.0141	0.0141	0.0000	23.6770	23.6770	5.7900e-003	0.0000	23.7987
Total	**0.0267**	**0.2326**	**0.1753**	**2.7000e-004**		**0.0149**	**0.0149**		**0.0141**	**0.0141**	**0.0000**	**23.6770**	**23.6770**	**5.7900e-003**	**0.0000**	**23.7987**

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	1.9700e-003	0.0158	0.0274	5.0000e-005	1.4200e-003	2.5000e-004	1.6700e-003	4.0000e-004	2.3000e-004	6.4000e-004	0.0000	4.4364	4.4364	3.0000e-005	0.0000	4.4371
Worker	3.8400e-003	6.0200e-003	0.0617	1.7000e-004	0.0144	1.0000e-004	0.0145	3.8400e-003	9.0000e-005	3.9300e-003	0.0000	11.7780	11.7780	5.6000e-004	0.0000	11.7898
Total	**5.8100e-003**	**0.0218**	**0.0891**	**2.2000e-004**	**0.0159**	**3.5000e-004**	**0.0162**	**4.2400e-003**	**3.2000e-004**	**4.5700e-003**	**0.0000**	**16.2144**	**16.2144**	**5.9000e-004**	**0.0000**	**16.2269**

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	0.0267	0.2326	0.1753	2.7000e-004		0.0149	0.0149		0.0141	0.0141	0.0000	23.6769	23.6769	5.7900e-003	0.0000	23.7986
Total	**0.0267**	**0.2326**	**0.1753**	**2.7000e-004**		**0.0149**	**0.0149**		**0.0141**	**0.0141**	**0.0000**	**23.6769**	**23.6769**	**5.7900e-003**	**0.0000**	**23.7986**

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	1.9700e-003	0.0158	0.0274	5.0000e-005	1.4200e-003	2.5000e-004	1.6700e-003	4.0000e-004	2.3000e-004	6.4000e-004	0.0000	4.4364	4.4364	3.0000e-005	0.0000	4.4371
Worker	3.8400e-003	6.0200e-003	0.0617	1.7000e-004	0.0144	1.0000e-004	0.0145	3.8400e-003	9.0000e-005	3.9300e-003	0.0000	11.7780	11.7780	5.6000e-004	0.0000	11.7898
Total	**5.8100e-003**	**0.0218**	**0.0891**	**2.2000e-004**	**0.0159**	**3.5000e-004**	**0.0162**	**4.2400e-003**	**3.2000e-004**	**4.5700e-003**	**0.0000**	**16.2144**	**16.2144**	**5.9000e-004**	**0.0000**	**16.2269**

3.6 Paving - 2018

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	0.0161	0.1716	0.1449	2.2000e-004		9.3900e-003	9.3900e-003		8.6400e-003	8.6400e-003	0.0000	20.3687	20.3687	6.3400e-003	0.0000	20.5019
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0161**	**0.1716**	**0.1449**	**2.2000e-004**		**9.3900e-003**	**9.3900e-003**		**8.6400e-003**	**8.6400e-003**	**0.0000**	**20.3687**	**20.3687**	**6.3400e-003**	**0.0000**	**20.5019**

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	4.4000e-004	6.9000e-004	7.0700e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3486	1.3486	6.0000e-005	0.0000	1.3500
Total	**4.4000e-004**	**6.9000e-004**	**7.0700e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3486**	**1.3486**	**6.0000e-005**	**0.0000**	**1.3500**

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	0.0161	0.1716	0.1449	2.2000e-004		9.3900e-003	9.3900e-003		8.6400e-003	8.6400e-003	0.0000	20.3687	20.3687	6.3400e-003	0.0000	20.5019
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0161**	**0.1716**	**0.1449**	**2.2000e-004**		**9.3900e-003**	**9.3900e-003**		**8.6400e-003**	**8.6400e-003**	**0.0000**	**20.3687**	**20.3687**	**6.3400e-003**	**0.0000**	**20.5019**

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	4.4000e-004	6.9000e-004	7.0700e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3486	1.3486	6.0000e-005	0.0000	1.3500
Total	**4.4000e-004**	**6.9000e-004**	**7.0700e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3486**	**1.3486**	**6.0000e-005**	**0.0000**	**1.3500**

3.7 Architectural Coating - 2018

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	0.8009					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5584
Total	**0.8039**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5584**

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	7.6000e-004	1.2000e-003	0.0123	3.0000e-005	2.8600e-003	2.0000e-005	2.8800e-003	7.6000e-004	2.0000e-005	7.8000e-004	0.0000	2.3376	2.3376	1.1000e-004	0.0000	2.3400
Total	**7.6000e-004**	**1.2000e-003**	**0.0123**	**3.0000e-005**	**2.8600e-003**	**2.0000e-005**	**2.8800e-003**	**7.6000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.3376**	**2.3376**	**1.1000e-004**	**0.0000**	**2.3400**

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	0.8009					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5584
Total	**0.8039**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5584**

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	7.6000e-004	1.2000e-003	0.0123	3.0000e-005	2.8600e-003	2.0000e-005	2.8800e-003	7.6000e-004	2.0000e-005	7.8000e-004	0.0000	2.3376	2.3376	1.1000e-004	0.0000	2.3400
Total	**7.6000e-004**	**1.2000e-003**	**0.0123**	**3.0000e-005**	**2.8600e-003**	**2.0000e-005**	**2.8800e-003**	**7.6000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.3376**	**2.3376**	**1.1000e-004**	**0.0000**	**2.3400**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Pedestrian Network

	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	0.7019	1.8826	8.4658	0.0227	1.6108	0.0277	1.6385	0.4316	0.0255	0.4570	0.0000	1,628.6231	1,628.6231	0.0620	0.0000	1,629.9247

Unmitigated	0.7074	1.9182	8.6051	0.0232	1.6462	0.0282	1.6744	0.4410	0.0260	0.4670	0.0000	1,663.5194	1,663.5194	0.0632	0.0000	1,664.8472

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,199.38	1,303.12	1104.74	4,422,170	4,327,180
Total	1,199.38	1,303.12	1,104.74	4,422,170	4,327,180

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
Apartments Low Rise	15.00	7.50	8.50	46.50	12.50	41.00	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504051	0.067969	0.178847	0.146822	0.044632	0.006327	0.021095	0.016719	0.002306	0.002274	0.006223	0.000559	0.002177

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	190.3685	190.3685	8.6100e-003	1.7800e-003	191.1014
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	190.3685	190.3685	8.6100e-003	1.7800e-003	191.1014
NaturalGas Mitigated	0.0131	0.1117	0.0475	7.1000e-004		9.0300e-003	9.0300e-003		9.0300e-003	9.0300e-003	0.0000	129.3449	129.3449	2.4800e-003	2.3700e-003	130.1321
NaturalGas Unmitigated	0.0131	0.1117	0.0475	7.1000e-004		9.0300e-003	9.0300e-003		9.0300e-003	9.0300e-003	0.0000	129.3449	129.3449	2.4800e-003	2.3700e-003	130.1321

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					
Apartments Low Rise	2.42383e+006	0.0131	0.1117	0.0475	7.1000e-004		9.0300e-003	9.0300e-003		9.0300e-003	9.0300e-003	0.0000	129.3449	129.3449	2.4800e-003	2.3700e-003	130.1321
Total		**0.0131**	**0.1117**	**0.0475**	**7.1000e-004**		**9.0300e-003**	**9.0300e-003**		**9.0300e-003**	**9.0300e-003**	**0.0000**	**129.3449**	**129.3449**	**2.4800e-003**	**2.3700e-003**	**130.1321**

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					
Apartments Low Rise	2.42383e+006	0.0131	0.1117	0.0475	7.1000e-004		9.0300e-003	9.0300e-003		9.0300e-003	9.0300e-003	0.0000	129.3449	129.3449	2.4800e-003	2.3700e-003	130.1321
Total		**0.0131**	**0.1117**	**0.0475**	**7.1000e-004**		**9.0300e-003**	**9.0300e-003**		**9.0300e-003**	**9.0300e-003**	**0.0000**	**129.3449**	**129.3449**	**2.4800e-003**	**2.3700e-003**	**130.1321**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Low Rise	654386		190.3685	8.6100e-003	1.7800e-003	191.1014
Total			**190.3685**	**8.6100e-003**	**1.7800e-003**	**191.1014**

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Low Rise	654386		190.3685	8.6100e-003	1.7800e-003	191.1014
Total			**190.3685**	**8.6100e-003**	**1.7800e-003**	**191.1014**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	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	0.6004	0.0219	1.8862	1.0000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	3.0659	3.0659	3.0100e-003	0.0000	3.1291
Unmitigated	0.6377	0.0219	1.8862	1.0000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	3.0659	3.0659	3.0100e-003	0.0000	3.1291

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	0.0801					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4999					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0577	0.0219	1.8862	1.0000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	3.0659	3.0659	3.0100e-003	0.0000	3.1291
Total	**0.6377**	**0.0219**	**1.8862**	**1.0000e-004**		**0.0103**	**0.0103**		**0.0103**	**0.0103**	**0.0000**	**3.0659**	**3.0659**	**3.0100e-003**	**0.0000**	**3.1291**

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	0.0801					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4625					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0577	0.0219	1.8862	1.0000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	3.0659	3.0659	3.0100e-003	0.0000	3.1291
Total	**0.6004**	**0.0219**	**1.8862**	**1.0000e-004**		**0.0103**	**0.0103**		**0.0103**	**0.0103**	**0.0000**	**3.0659**	**3.0659**	**3.0100e-003**	**0.0000**	**3.1291**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

		Total CO2	CH4	N2O	CO2e

Category	tons/yr	MT/yr			
Mitigated		24.2542	0.0125	7.5000e-003	26.8437
Unmitigated		28.9953	0.0156	9.3600e-003	32.2223

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Low Rise	11.858 / 7.47572		28.9953	0.0156	9.3600e-003	32.2223
Total			**28.9953**	**0.0156**	**9.3600e-003**	**32.2223**

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Low Rise	9.48643 / 7.0197		24.2542	0.0125	7.5000e-003	26.8437
Total			**24.2542**	**0.0125**	**7.5000e-003**	**26.8437**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			
Mitigated		16.9944	1.0043	0.0000	38.0856
Unmitigated		16.9944	1.0043	0.0000	38.0856

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Low Rise	83.72		16.9944	1.0043	0.0000	38.0856
Total			**16.9944**	**1.0043**	**0.0000**	**38.0856**

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Low Rise	83.72		16.9944	1.0043	0.0000	38.0856
Total			**16.9944**	**1.0043**	**0.0000**	**38.0856**

9.0 Operational Offroad

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

10.0 Vegetation

		Total CO2	CH4	N2O	CO2e
Category	tons	MT			
Unmitigated		-51.4800	0.0000	0.0000	-51.4800

10.1 Vegetation Land Change

Vegetation Type

	Initial/Final		Total CO2	CH4	N2O	CO2e
	Acres	tons	MT			
Scrub	7.6 / 4		-51.4800	0.0000	0.0000	-51.4800
Total			**-51.4800**	**0.0000**	**0.0000**	**-51.4800**

10.2 Net New Trees

Species Class

	Number of Trees		Total CO2	CH4	N2O	CO2e
		tons	MT			
Mixed Hardwood	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

GPA 16-04 ZC 16-05 EA 16-01 - Housing Element Program 3 Implementation Rezone

El Dorado County – Mountain Counties Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	182.00	Dwelling Unit	7.60	128,000.00	431

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	1			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage is total parcel area for APN 323-570-01 and 323-570-37. Total square feet of four buildings of three stories each. Population based on 2.37 average household size per City of Placerville 2013-2021 Housing Element.

Construction Phase - Parcels are vacant. No demolition necessary.

Off-road Equipment - Parcels are vacant. No demolition necessary.

Grading - Site disturbance estimate of construction assumption.

Woodstoves - Project assumptions are that apartments would have no woodstoves or fireplaces of any type.

Land Use Change -

Sequestration - Tree planting anticipated as a result of street tree installation and landscape aesthetics.

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation - Housing Opportunity Overlay provisions call for energy and water efficiency to be implemented in project design.

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	182,000.00	128,000.00
tblLandUse	LotAcreage	11.38	7.60
tblLandUse	Population	486.00	431.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

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					
2017	4.9096	51.8364	40.5132	0.0508	18.2716	2.7556	21.0272	9.9851	2.5352	12.5203	0.0000	4,633.6034	4,633.6034	1.2358	0.0000	4,659.5543
2018	80.4833	25.2956	27.1148	0.0508	1.6399	1.5291	3.1691	0.4377	1.4369	1.8746	0.0000	4,538.1754	4,538.1754	0.7061	0.0000	4,553.0027
Total	**85.3929**	**77.1320**	**67.6280**	**0.1016**	**19.9115**	**4.2847**	**24.1962**	**10.4229**	**3.9721**	**14.3949**	**0.0000**	**9,171.7787**	**9,171.7787**	**1.9418**	**0.0000**	**9,212.5570**

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					
2017	4.9096	51.8364	40.5132	0.0508	18.2716	2.7556	21.0272	9.9851	2.5352	12.5203	0.0000	4,633.6034	4,633.6034	1.2358	0.0000	4,659.5543
2018	80.4833	25.2956	27.1148	0.0508	1.6399	1.5291	3.1691	0.4377	1.4369	1.8746	0.0000	4,538.1754	4,538.1754	0.7061	0.0000	4,553.0027
Total	**85.3929**	**77.1320**	**67.6280**	**0.1016**	**19.9115**	**4.2847**	**24.1962**	**10.4229**	**3.9721**	**14.3949**	**0.0000**	**9,171.7787**	**9,171.7787**	**1.9418**	**0.0000**	**9,212.5570**

	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**

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	3.6400	0.1748	15.0896	7.9000e-004		0.0827	0.0827		0.0827	0.0827	0.0000	27.0365	27.0365	0.0265	0.0000	27.5938
Energy	0.0716	0.6120	0.2604	3.9100e-003		0.0495	0.0495		0.0495	0.0495		781.2514	781.2514	0.0150	0.0143	786.0059
Mobile	4.7575	10.5933	56.1695	0.1505	10.1630	0.1681	10.3312	2.7149	0.1550	2.8700		11,823.9235	11,823.9235	0.4160		11,832.6602
Total	**8.4691**	**11.3801**	**71.5195**	**0.1552**	**10.1630**	**0.3003**	**10.4633**	**2.7149**	**0.2872**	**3.0021**	**0.0000**	**12,632.2114**	**12,632.2114**	**0.4575**	**0.0143**	**12,646.2600**

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	3.4352	0.1748	15.0896	7.9000e-004		0.0827	0.0827		0.0827	0.0827	0.0000	27.0365	27.0365	0.0265	0.0000	27.5938
Energy	0.0716	0.6120	0.2604	3.9100e-003		0.0495	0.0495		0.0495	0.0495		781.2514	781.2514	0.0150	0.0143	786.0059
Mobile	4.7223	10.3980	55.1634	0.1473	9.9447	0.1648	10.1095	2.6566	0.1519	2.8085		11,575.5319	11,575.5319	0.4078		11,584.0958
Total	**8.2290**	**11.1848**	**70.5134**	**0.1520**	**9.9447**	**0.2969**	**10.2417**	**2.6566**	**0.2841**	**2.9407**	**0.0000**	**12,383.8198**	**12,383.8198**	**0.4493**	**0.0143**	**12,397.6956**

	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	2.83	1.72	1.41	2.04	2.15	1.12	2.12	2.15	1.08	2.05	0.00	1.97	1.97	1.80	0.00	1.97

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/27/2017	5	20	
2	Site Preparation	Site Preparation	1/28/2017	2/10/2017	5	10	
3	Grading	Grading	2/11/2017	3/10/2017	5	20	
4	Building Construction	Building Construction	3/11/2017	1/26/2018	5	230	
5	Paving	Paving	1/27/2018	2/23/2018	5	20	
6	Architectural Coating	Architectural Coating	2/24/2018	3/23/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 259,200; Residential Outdoor: 86,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40

Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	131.00	19.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	26.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

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	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797		4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**		**2.1252**	**2.1252**		**1.9797**	**1.9797**		**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

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
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
Worker	0.0595	0.0691	0.9302	2.1700e-003	0.1711	1.1500e-003	0.1722	0.0454	1.0600e-003	0.0464		171.0892	171.0892	7.6800e-003		171.2505
Total	**0.0595**	**0.0691**	**0.9302**	**2.1700e-003**	**0.1711**	**1.1500e-003**	**0.1722**	**0.0454**	**1.0600e-003**	**0.0464**		**171.0892**	**171.0892**	**7.6800e-003**		**171.2505**

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	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797	0.0000	4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**		**2.1252**	**2.1252**		**1.9797**	**1.9797**	**0.0000**	**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

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
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
Worker	0.0595	0.0691	0.9302	2.1700e-003	0.1711	1.1500e-003	0.1722	0.0454	1.0600e-003	0.0464		171.0892	171.0892	7.6800e-003		171.2505
Total	**0.0595**	**0.0691**	**0.9302**	**2.1700e-003**	**0.1711**	**1.1500e-003**	**0.1722**	**0.0454**	**1.0600e-003**	**0.0464**		**171.0892**	**171.0892**	**7.6800e-003**		**171.2505**

3.3 Site Preparation - 2017

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**		**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

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
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
Worker	0.0714	0.0829	1.1162	2.6000e-003	0.2053	1.3800e-003	0.2067	0.0545	1.2800e-003	0.0557		205.3070	205.3070	9.2200e-003		205.5006
Total	**0.0714**	**0.0829**	**1.1162**	**2.6000e-003**	**0.2053**	**1.3800e-003**	**0.2067**	**0.0545**	**1.2800e-003**	**0.0557**		**205.3070**	**205.3070**	**9.2200e-003**		**205.5006**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**	**0.0000**	**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

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
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
Worker	0.0714	0.0829	1.1162	2.6000e-003	0.2053	1.3800e-003	0.2067	0.0545	1.2800e-003	0.0557		205.3070	205.3070	9.2200e-003		205.5006
Total	**0.0714**	**0.0829**	**1.1162**	**2.6000e-003**	**0.2053**	**1.3800e-003**	**0.2067**	**0.0545**	**1.2800e-003**	**0.0557**		**205.3070**	**205.3070**	**9.2200e-003**		**205.5006**

3.4 Grading - 2017

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757		3,043.6667	3,043.6667	0.9326		3,063.2507
Total	**3.4555**	**35.9825**	**25.3812**	**0.0297**	**6.5523**	**2.0388**	**8.5912**	**3.3675**	**1.8757**	**5.2432**		**3,043.6667**	**3,043.6667**	**0.9326**		**3,063.2507**

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
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
Worker	0.0595	0.0691	0.9302	2.1700e-003	0.1711	1.1500e-003	0.1722	0.0454	1.0600e-003	0.0464		171.0892	171.0892	7.6800e-003		171.2505
Total	**0.0595**	**0.0691**	**0.9302**	**2.1700e-003**	**0.1711**	**1.1500e-003**	**0.1722**	**0.0454**	**1.0600e-003**	**0.0464**		**171.0892**	**171.0892**	**7.6800e-003**		**171.2505**

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757	0.0000	3,043.6667	3,043.6667	0.9326		3,063.2507
Total	**3.4555**	**35.9825**	**25.3812**	**0.0297**	**6.5523**	**2.0388**	**8.5912**	**3.3675**	**1.8757**	**5.2432**	**0.0000**	**3,043.6667**	**3,043.6667**	**0.9326**		**3,063.2507**

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
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
Worker	0.0595	0.0691	0.9302	2.1700e-003	0.1711	1.1500e-003	0.1722	0.0454	1.0600e-003	0.0464		171.0892	171.0892	7.6800e-003		171.2505
Total	**0.0595**	**0.0691**	**0.9302**	**2.1700e-003**	**0.1711**	**1.1500e-003**	**0.1722**	**0.0454**	**1.0600e-003**	**0.0464**		**171.0892**	**171.0892**	**7.6800e-003**		**171.2505**

3.5 Building Construction - 2017

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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
Vendor	0.2159	1.6595	2.5709	5.0700e-003	0.1458	0.0272	0.1730	0.0415	0.0250	0.0665		499.6195	499.6195	3.6000e-003		499.6950
Worker	0.5196	0.6033	8.1234	0.0189	1.4941	0.0101	1.5042	0.3963	9.2900e-003	0.4055		1,494.1786	1,494.1786	0.0671		1,495.5877
Total	**0.7355**	**2.2628**	**10.6943**	**0.0240**	**1.6400**	**0.0373**	**1.6772**	**0.4378**	**0.0343**	**0.4720**		**1,993.7980**	**1,993.7980**	**0.0707**		**1,995.2826**

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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
Vendor	0.2159	1.6595	2.5709	5.0700e-003	0.1458	0.0272	0.1730	0.0415	0.0250	0.0665		499.6195	499.6195	3.6000e-003		499.6950
Worker	0.5196	0.6033	8.1234	0.0189	1.4941	0.0101	1.5042	0.3963	9.2900e-003	0.4055		1,494.1786	1,494.1786	0.0671		1,495.5877
Total	**0.7355**	**2.2628**	**10.6943**	**0.0240**	**1.6400**	**0.0373**	**1.6772**	**0.4378**	**0.0343**	**0.4720**		**1,993.7980**	**1,993.7980**	**0.0707**		**1,995.2826**

3.5 Building Construction - 2018

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	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

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
Vendor	0.1814	1.4909	2.2533	5.0500e-003	0.1458	0.0250	0.1708	0.0415	0.0230	0.0645		490.4399	490.4399	3.5000e-003		490.5133
Worker	0.4628	0.5439	7.3288	0.0189	1.4941	9.8600e-003	1.5040	0.3963	9.1200e-003	0.4054		1,437.7966	1,437.7966	0.0618		1,439.0951
Total	**0.6442**	**2.0348**	**9.5821**	**0.0240**	**1.6399**	**0.0349**	**1.6748**	**0.4378**	**0.0321**	**0.4699**		**1,928.2364**	**1,928.2364**	**0.0653**		**1,929.6084**

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	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

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
Vendor	0.1814	1.4909	2.2533	5.0500e-003	0.1458	0.0250	0.1708	0.0415	0.0230	0.0645		490.4399	490.4399	3.5000e-003		490.5133
Worker	0.4628	0.5439	7.3288	0.0189	1.4941	9.8600e-003	1.5040	0.3963	9.1200e-003	0.4054		1,437.7966	1,437.7966	0.0618		1,439.0951
Total	**0.6442**	**2.0348**	**9.5821**	**0.0240**	**1.6399**	**0.0349**	**1.6748**	**0.4378**	**0.0321**	**0.4699**		**1,928.2364**	**1,928.2364**	**0.0653**		**1,929.6084**

3.6 Paving - 2018

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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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
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
Worker	0.0530	0.0623	0.8392	2.1700e-003	0.1711	1.1300e-003	0.1722	0.0454	1.0400e-003	0.0464		164.6332	164.6332	7.0800e-003		164.7819
Total	**0.0530**	**0.0623**	**0.8392**	**2.1700e-003**	**0.1711**	**1.1300e-003**	**0.1722**	**0.0454**	**1.0400e-003**	**0.0464**		**164.6332**	**164.6332**	**7.0800e-003**		**164.7819**

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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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
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
Worker	0.0530	0.0623	0.8392	2.1700e-003	0.1711	1.1300e-003	0.1722	0.0454	1.0400e-003	0.0464		164.6332	164.6332	7.0800e-003		164.7819
Total	**0.0530**	**0.0623**	**0.8392**	**2.1700e-003**	**0.1711**	**1.1300e-003**	**0.1722**	**0.0454**	**1.0400e-003**	**0.0464**		**164.6332**	**164.6332**	**7.0800e-003**		**164.7819**

3.7 Architectural Coating - 2018

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	80.0928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**80.3914**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

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
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
Worker	0.0919	0.1079	1.4546	3.7600e-003	0.2965	1.9600e-003	0.2985	0.0786	1.8100e-003	0.0805		285.3642	285.3642	0.0123		285.6219
Total	**0.0919**	**0.1079**	**1.4546**	**3.7600e-003**	**0.2965**	**1.9600e-003**	**0.2985**	**0.0786**	**1.8100e-003**	**0.0805**		**285.3642**	**285.3642**	**0.0123**		**285.6219**

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	80.0928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**80.3914**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

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
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
Worker	0.0919	0.1079	1.4546	3.7600e-003	0.2965	1.9600e-003	0.2985	0.0786	1.8100e-003	0.0805		285.3642	285.3642	0.0123		285.6219
Total	**0.0919**	**0.1079**	**1.4546**	**3.7600e-003**	**0.2965**	**1.9600e-003**	**0.2985**	**0.0786**	**1.8100e-003**	**0.0805**		**285.3642**	**285.3642**	**0.0123**		**285.6219**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Pedestrian Network

	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	4.7223	10.3980	55.1634	0.1473	9.9447	0.1648	10.1095	2.6566	0.1519	2.8085		11,575.5319	11,575.5319	0.4078		11,584.0958
Unmitigated	4.7575	10.5933	56.1695	0.1505	10.1630	0.1681	10.3312	2.7149	0.1550	2.8700		11,823.9235	11,823.9235	0.4160		11,832.6602

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,199.38	1,303.12	1104.74	4,422,170	4,327,180
Total	1,199.38	1,303.12	1,104.74	4,422,170	4,327,180

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
Apartments Low Rise	15.00	7.50	8.50	46.50	12.50	41.00	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504051	0.067969	0.178847	0.146822	0.044632	0.006327	0.021095	0.016719	0.002306	0.002274	0.006223	0.000559	0.002177

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0716	0.6120	0.2604	3.9100e-003		0.0495	0.0495		0.0495	0.0495		781.2514	781.2514	0.0150	0.0143	786.0059
NaturalGas Unmitigated	0.0716	0.6120	0.2604	3.9100e-003		0.0495	0.0495		0.0495	0.0495		781.2514	781.2514	0.0150	0.0143	786.0059

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					
Apartments Low Rise	6640.64	0.0716	0.6120	0.2604	3.9100e-003		0.0495	0.0495		0.0495	0.0495		781.2514	781.2514	0.0150	0.0143	786.0059
Total		**0.0716**	**0.6120**	**0.2604**	**3.9100e-003**		**0.0495**	**0.0495**		**0.0495**	**0.0495**		**781.2514**	**781.2514**	**0.0150**	**0.0143**	**786.0059**

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					
Apartments Low Rise	6.64064	0.0716	0.6120	0.2604	3.9100e-003		0.0495	0.0495		0.0495	0.0495		781.2514	781.2514	0.0150	0.0143	786.0059
Total		**0.0716**	**0.6120**	**0.2604**	**3.9100e-003**		**0.0495**	**0.0495**		**0.0495**	**0.0495**		**781.2514**	**781.2514**	**0.0150**	**0.0143**	**786.0059**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	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	3.4352	0.1748	15.0896	7.9000e-004		0.0827	0.0827		0.0827	0.0827	0.0000	27.0365	27.0365	0.0265	0.0000	27.5938
Unmitigated	3.6400	0.1748	15.0896	7.9000e-004		0.0827	0.0827		0.0827	0.0827	0.0000	27.0365	27.0365	0.0265	0.0000	27.5938

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	0.4389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.7392					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4619	0.1748	15.0896	7.9000e-004		0.0827	0.0827		0.0827	0.0827		27.0365	27.0365	0.0265		27.5938
Total	**3.6400**	**0.1748**	**15.0896**	**7.9000e-004**		**0.0827**	**0.0827**		**0.0827**	**0.0827**	**0.0000**	**27.0365**	**27.0365**	**0.0265**	**0.0000**	**27.5938**

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	0.4389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5344					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4619	0.1748	15.0896	7.9000e-004		0.0827	0.0827		0.0827	0.0827		27.0365	27.0365	0.0265		27.5938
Total	**3.4352**	**0.1748**	**15.0896**	**7.9000e-004**		**0.0827**	**0.0827**		**0.0827**	**0.0827**	**0.0000**	**27.0365**	**27.0365**	**0.0265**	**0.0000**	**27.5938**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

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 Vegetation

GPA 16-04 ZC 16-05 EA 16-01 - Housing Element Program 3 Implementation Rezone

El Dorado County – Mountain Counties Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	182.00	Dwelling Unit	7.60	128,000.00	431

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	1			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage is total parcel area for APN 323-570-01 and 323-570-37. Total square feet of four buildings of three stories each. Population based on 2.37 average household size per City of Placerville 2013-2021 Housing Element.

Construction Phase - Parcels are vacant. No demolition necessary.

Off-road Equipment - Parcels are vacant. No demolition necessary.

Grading - Site disturbance estimate of construction assumption.

Woodstoves - Project assumptions are that apartments would have no woodstoves or fireplaces of any type.

Land Use Change -

Sequestration - Tree planting anticipated as a result of street tree installation and landscape aesthetics.

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation - Housing Opportunity Overlay provisions call for energy and water efficiency to be implemented in project design.

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	182,000.00	128,000.00
tblLandUse	LotAcreage	11.38	7.60
tblLandUse	Population	486.00	431.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

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					
2017	4.8999	51.8563	40.3538	0.0484	18.2716	2.7556	21.0272	9.9851	2.5352	12.5203	0.0000	4,446.4810	4,446.4810	1.2358	0.0000	4,472.4319
2018	80.4698	25.5381	27.2525	0.0484	1.6399	1.5294	3.1694	0.4377	1.4372	1.8749	0.0000	4,357.9132	4,357.9132	0.7061	0.0000	4,372.7405
Total	**85.3697**	**77.3944**	**67.6063**	**0.0969**	**19.9115**	**4.2850**	**24.1965**	**10.4229**	**3.9723**	**14.3952**	**0.0000**	**8,804.3942**	**8,804.3942**	**1.9418**	**0.0000**	**8,845.1724**

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					
2017	4.8999	51.8563	40.3538	0.0484	18.2716	2.7556	21.0272	9.9851	2.5352	12.5203	0.0000	4,446.4810	4,446.4810	1.2358	0.0000	4,472.4319
2018	80.4698	25.5381	27.2525	0.0484	1.6399	1.5294	3.1694	0.4377	1.4372	1.8749	0.0000	4,357.9132	4,357.9132	0.7061	0.0000	4,372.7405
Total	**85.3697**	**77.3944**	**67.6063**	**0.0969**	**19.9115**	**4.2850**	**24.1965**	**10.4229**	**3.9723**	**14.3952**	**0.0000**	**8,804.3942**	**8,804.3942**	**1.9418**	**0.0000**	**8,845.1724**

	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**

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	3.6400	0.1748	15.0896	7.9000e-004		0.0827	0.0827		0.0827	0.0827	0.0000	27.0365	27.0365	0.0265	0.0000	27.5938
Energy	0.0716	0.6120	0.2604	3.9100e-003		0.0495	0.0495		0.0495	0.0495		781.2514	781.2514	0.0150	0.0143	786.0059
Mobile	4.3942	12.0995	54.8902	0.1355	10.1630	0.1689	10.3319	2.7149	0.1557	2.8706		10,708.8810	10,708.8810	0.4163		10,717.6231
Total	**8.1057**	**12.8863**	**70.2402**	**0.1402**	**10.1630**	**0.3010**	**10.4640**	**2.7149**	**0.2879**	**3.0028**	**0.0000**	**11,517.1689**	**11,517.1689**	**0.4578**	**0.0143**	**11,531.2229**

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	3.4352	0.1748	15.0896	7.9000e-004		0.0827	0.0827		0.0827	0.0827	0.0000	27.0365	27.0365	0.0265	0.0000	27.5938
Energy	0.0716	0.6120	0.2604	3.9100e-003		0.0495	0.0495		0.0495	0.0495		781.2514	781.2514	0.0150	0.0143	786.0059
Mobile	4.3612	11.8744	54.0818	0.1327	9.9447	0.1655	10.1102	2.6566	0.1526	2.8092		10,484.2419	10,484.2419	0.4081		10,492.8112
Total	**7.8680**	**12.6612**	**69.4318**	**0.1374**	**9.9447**	**0.2977**	**10.2424**	**2.6566**	**0.2848**	**2.9414**	**0.0000**	**11,292.5298**	**11,292.5298**	**0.4496**	**0.0143**	**11,306.4110**

	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	2.93	1.75	1.15	2.03	2.15	1.12	2.12	2.15	1.08	2.05	0.00	1.95	1.95	1.80	0.00	1.95

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/27/2017	5	20	
2	Site Preparation	Site Preparation	1/28/2017	2/10/2017	5	10	
3	Grading	Grading	2/11/2017	3/10/2017	5	20	
4	Building Construction	Building Construction	3/11/2017	1/26/2018	5	230	
5	Paving	Paving	1/27/2018	2/23/2018	5	20	
6	Architectural Coating	Architectural Coating	2/24/2018	3/23/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 259,200; Residential Outdoor: 86,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40

Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	131.00	19.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	26.00	0.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

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	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797		4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**		**2.1252**	**2.1252**		**1.9797**	**1.9797**		**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

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
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
Worker	0.0514	0.0857	0.7973	1.9000e-003	0.1711	1.1500e-003	0.1722	0.0454	1.0600e-003	0.0464		150.0536	150.0536	7.6800e-003		150.2149
Total	**0.0514**	**0.0857**	**0.7973**	**1.9000e-003**	**0.1711**	**1.1500e-003**	**0.1722**	**0.0454**	**1.0600e-003**	**0.0464**		**150.0536**	**150.0536**	**7.6800e-003**		**150.2149**

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	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797	0.0000	4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**		**2.1252**	**2.1252**		**1.9797**	**1.9797**	**0.0000**	**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

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
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
Worker	0.0514	0.0857	0.7973	1.9000e-003	0.1711	1.1500e-003	0.1722	0.0454	1.0600e-003	0.0464		150.0536	150.0536	7.6800e-003		150.2149
Total	**0.0514**	**0.0857**	**0.7973**	**1.9000e-003**	**0.1711**	**1.1500e-003**	**0.1722**	**0.0454**	**1.0600e-003**	**0.0464**		**150.0536**	**150.0536**	**7.6800e-003**		**150.2149**

3.3 Site Preparation - 2017

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**		**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

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
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
Worker	0.0617	0.1028	0.9568	2.2800e-003	0.2053	1.3800e-003	0.2067	0.0545	1.2800e-003	0.0557		180.0643	180.0643	9.2200e-003		180.2579
Total	**0.0617**	**0.1028**	**0.9568**	**2.2800e-003**	**0.2053**	**1.3800e-003**	**0.2067**	**0.0545**	**1.2800e-003**	**0.0557**		**180.0643**	**180.0643**	**9.2200e-003**		**180.2579**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**	**0.0000**	**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

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
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
Worker	0.0617	0.1028	0.9568	2.2800e-003	0.2053	1.3800e-003	0.2067	0.0545	1.2800e-003	0.0557		180.0643	180.0643	9.2200e-003		180.2579
Total	**0.0617**	**0.1028**	**0.9568**	**2.2800e-003**	**0.2053**	**1.3800e-003**	**0.2067**	**0.0545**	**1.2800e-003**	**0.0557**		**180.0643**	**180.0643**	**9.2200e-003**		**180.2579**

3.4 Grading - 2017

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757		3,043.6667	3,043.6667	0.9326		3,063.2507
Total	**3.4555**	**35.9825**	**25.3812**	**0.0297**	**6.5523**	**2.0388**	**8.5912**	**3.3675**	**1.8757**	**5.2432**		**3,043.6667**	**3,043.6667**	**0.9326**		**3,063.2507**

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
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
Worker	0.0514	0.0857	0.7973	1.9000e-003	0.1711	1.1500e-003	0.1722	0.0454	1.0600e-003	0.0464		150.0536	150.0536	7.6800e-003		150.2149
Total	**0.0514**	**0.0857**	**0.7973**	**1.9000e-003**	**0.1711**	**1.1500e-003**	**0.1722**	**0.0454**	**1.0600e-003**	**0.0464**		**150.0536**	**150.0536**	**7.6800e-003**		**150.2149**

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757	0.0000	3,043.6667	3,043.6667	0.9326		3,063.2507
Total	**3.4555**	**35.9825**	**25.3812**	**0.0297**	**6.5523**	**2.0388**	**8.5912**	**3.3675**	**1.8757**	**5.2432**	**0.0000**	**3,043.6667**	**3,043.6667**	**0.9326**		**3,063.2507**

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
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
Worker	0.0514	0.0857	0.7973	1.9000e-003	0.1711	1.1500e-003	0.1722	0.0454	1.0600e-003	0.0464		150.0536	150.0536	7.6800e-003		150.2149
Total	**0.0514**	**0.0857**	**0.7973**	**1.9000e-003**	**0.1711**	**1.1500e-003**	**0.1722**	**0.0454**	**1.0600e-003**	**0.0464**		**150.0536**	**150.0536**	**7.6800e-003**		**150.2149**

3.5 Building Construction - 2017

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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
Vendor	0.2760	1.7856	3.7943	5.0600e-003	0.1458	0.0275	0.1733	0.0415	0.0253	0.0668		496.2080	496.2080	3.6900e-003		496.2855
Worker	0.4490	0.7483	6.9634	0.0166	1.4941	0.0101	1.5042	0.3963	9.2900e-003	0.4055		1,310.4677	1,310.4677	0.0671		1,311.8768
Total	**0.7250**	**2.5339**	**10.7577**	**0.0216**	**1.6400**	**0.0376**	**1.6775**	**0.4378**	**0.0346**	**0.4723**		**1,806.6757**	**1,806.6757**	**0.0708**		**1,808.1623**

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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
Vendor	0.2760	1.7856	3.7943	5.0600e-003	0.1458	0.0275	0.1733	0.0415	0.0253	0.0668		496.2080	496.2080	3.6900e-003		496.2855
Worker	0.4490	0.7483	6.9634	0.0166	1.4941	0.0101	1.5042	0.3963	9.2900e-003	0.4055		1,310.4677	1,310.4677	0.0671		1,311.8768
Total	**0.7250**	**2.5339**	**10.7577**	**0.0216**	**1.6400**	**0.0376**	**1.6775**	**0.4378**	**0.0346**	**0.4723**		**1,806.6757**	**1,806.6757**	**0.0708**		**1,808.1623**

3.5 Building Construction - 2018

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	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

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
Vendor	0.2271	1.6034	3.4943	5.0400e-003	0.1458	0.0253	0.1711	0.0415	0.0232	0.0647		487.0779	487.0779	3.5900e-003		487.1533
Worker	0.3950	0.6739	6.2255	0.0166	1.4941	9.8600e-003	1.5040	0.3963	9.1200e-003	0.4054		1,260.8964	1,260.8964	0.0618		1,262.1949
Total	**0.6220**	**2.2773**	**9.7198**	**0.0216**	**1.6399**	**0.0351**	**1.6751**	**0.4378**	**0.0324**	**0.4701**		**1,747.9743**	**1,747.9743**	**0.0654**		**1,749.3482**

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	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

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
Vendor	0.2271	1.6034	3.4943	5.0400e-003	0.1458	0.0253	0.1711	0.0415	0.0232	0.0647		487.0779	487.0779	3.5900e-003		487.1533
Worker	0.3950	0.6739	6.2255	0.0166	1.4941	9.8600e-003	1.5040	0.3963	9.1200e-003	0.4054		1,260.8964	1,260.8964	0.0618		1,262.1949
Total	**0.6220**	**2.2773**	**9.7198**	**0.0216**	**1.6399**	**0.0351**	**1.6751**	**0.4378**	**0.0324**	**0.4701**		**1,747.9743**	**1,747.9743**	**0.0654**		**1,749.3482**

3.6 Paving - 2018

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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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
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
Worker	0.0452	0.0772	0.7129	1.9000e-003	0.1711	1.1300e-003	0.1722	0.0454	1.0400e-003	0.0464		144.3775	144.3775	7.0800e-003		144.5261
Total	**0.0452**	**0.0772**	**0.7129**	**1.9000e-003**	**0.1711**	**1.1300e-003**	**0.1722**	**0.0454**	**1.0400e-003**	**0.0464**		**144.3775**	**144.3775**	**7.0800e-003**		**144.5261**

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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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
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
Worker	0.0452	0.0772	0.7129	1.9000e-003	0.1711	1.1300e-003	0.1722	0.0454	1.0400e-003	0.0464		144.3775	144.3775	7.0800e-003		144.5261
Total	**0.0452**	**0.0772**	**0.7129**	**1.9000e-003**	**0.1711**	**1.1300e-003**	**0.1722**	**0.0454**	**1.0400e-003**	**0.0464**		**144.3775**	**144.3775**	**7.0800e-003**		**144.5261**

3.7 Architectural Coating - 2018

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	80.0928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**80.3914**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

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
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
Worker	0.0784	0.1338	1.2356	3.2900e-003	0.2965	1.9600e-003	0.2985	0.0786	1.8100e-003	0.0805		250.2542	250.2542	0.0123		250.5120
Total	**0.0784**	**0.1338**	**1.2356**	**3.2900e-003**	**0.2965**	**1.9600e-003**	**0.2985**	**0.0786**	**1.8100e-003**	**0.0805**		**250.2542**	**250.2542**	**0.0123**		**250.5120**

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	80.0928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**80.3914**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

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
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
Worker	0.0784	0.1338	1.2356	3.2900e-003	0.2965	1.9600e-003	0.2985	0.0786	1.8100e-003	0.0805		250.2542	250.2542	0.0123		250.5120
Total	**0.0784**	**0.1338**	**1.2356**	**3.2900e-003**	**0.2965**	**1.9600e-003**	**0.2985**	**0.0786**	**1.8100e-003**	**0.0805**		**250.2542**	**250.2542**	**0.0123**		**250.5120**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Pedestrian Network

	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	4.3612	11.8744	54.0818	0.1327	9.9447	0.1655	10.1102	2.6566	0.1526	2.8092		10,484.2419	10,484.2419	0.4081		10,492.8112
Unmitigated	4.3942	12.0995	54.8902	0.1355	10.1630	0.1689	10.3319	2.7149	0.1557	2.8706		10,708.8810	10,708.8810	0.4163		10,717.6231

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,199.38	1,303.12	1104.74	4,422,170	4,327,180
Total	1,199.38	1,303.12	1,104.74	4,422,170	4,327,180

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
Apartments Low Rise	15.00	7.50	8.50	46.50	12.50	41.00	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504051	0.067969	0.178847	0.146822	0.044632	0.006327	0.021095	0.016719	0.002306	0.002274	0.006223	0.000559	0.002177

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0716	0.6120	0.2604	3.9100e-003		0.0495	0.0495		0.0495	0.0495		781.2514	781.2514	0.0150	0.0143	786.0059
NaturalGas Unmitigated	0.0716	0.6120	0.2604	3.9100e-003		0.0495	0.0495		0.0495	0.0495		781.2514	781.2514	0.0150	0.0143	786.0059

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					
Apartments Low Rise	6640.64	0.0716	0.6120	0.2604	3.9100e-003		0.0495	0.0495		0.0495	0.0495		781.2514	781.2514	0.0150	0.0143	786.0059
Total		**0.0716**	**0.6120**	**0.2604**	**3.9100e-003**		**0.0495**	**0.0495**		**0.0495**	**0.0495**		**781.2514**	**781.2514**	**0.0150**	**0.0143**	**786.0059**

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					
Apartments Low Rise	6.64064	0.0716	0.6120	0.2604	3.9100e-003		0.0495	0.0495		0.0495	0.0495		781.2514	781.2514	0.0150	0.0143	786.0059
Total		**0.0716**	**0.6120**	**0.2604**	**3.9100e-003**		**0.0495**	**0.0495**		**0.0495**	**0.0495**		**781.2514**	**781.2514**	**0.0150**	**0.0143**	**786.0059**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	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	3.4352	0.1748	15.0896	7.9000e-004		0.0827	0.0827		0.0827	0.0827	0.0000	27.0365	27.0365	0.0265	0.0000	27.5938
Unmitigated	3.6400	0.1748	15.0896	7.9000e-004		0.0827	0.0827		0.0827	0.0827	0.0000	27.0365	27.0365	0.0265	0.0000	27.5938

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	0.4389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.7392					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4619	0.1748	15.0896	7.9000e-004		0.0827	0.0827		0.0827	0.0827		27.0365	27.0365	0.0265		27.5938
Total	**3.6400**	**0.1748**	**15.0896**	**7.9000e-004**		**0.0827**	**0.0827**		**0.0827**	**0.0827**	**0.0000**	**27.0365**	**27.0365**	**0.0265**	**0.0000**	**27.5938**

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	0.4389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5344					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4619	0.1748	15.0896	7.9000e-004		0.0827	0.0827		0.0827	0.0827		27.0365	27.0365	0.0265		27.5938
Total	**3.4352**	**0.1748**	**15.0896**	**7.9000e-004**		**0.0827**	**0.0827**		**0.0827**	**0.0827**	**0.0000**	**27.0365**	**27.0365**	**0.0265**	**0.0000**	**27.5938**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

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 Vegetation

GPA 16-04 ZC 16-05 EA 16-01 - Housing Element Program 3 Implementation Rezone

El Dorado County - Mountain Counties Air Basin , Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	4	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	6	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	10	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	2.99000E-003	2.00600E-002	1.85400E-002	3.00000E-005	1.51000E-003	1.51000E-003	0.00000E+000	2.55326E+000	2.55326E+000	2.40000E-004	0.00000E+000	2.55835E+000
Concrete/Industrial Saws	5.81000E-003	4.26100E-002	3.74900E-002	6.00000E-005	3.07000E-003	3.07000E-003	0.00000E+000	5.37656E+000	5.37656E+000	4.70000E-004	0.00000E+000	5.38650E+000
Cranes	6.44200E-002	7.65180E-001	2.74830E-001	5.70000E-004	3.40400E-002	3.13100E-002	0.00000E+000	5.26204E+001	5.26204E+001	1.61400E-002	0.00000E+000	5.29594E+001
Excavators	1.44900E-002	1.60670E-001	1.36840E-001	2.10000E-004	7.91000E-003	7.27000E-003	0.00000E+000	1.96410E+001	1.96410E+001	6.02000E-003	0.00000E+000	1.97674E+001
Forklifts	7.17900E-002	6.22550E-001	4.29800E-001	5.30000E-004	5.12300E-002	4.71400E-002	0.00000E+000	4.88373E+001	4.88373E+001	1.49800E-002	0.00000E+000	4.91519E+001
Generator Sets	6.49100E-002	5.09870E-001	4.33690E-001	7.60000E-004	3.41600E-002	3.41600E-002	0.00000E+000	6.49989E+001	6.49989E+001	5.21000E-003	0.00000E+000	6.51083E+001
Graders	9.53000E-003	9.64100E-002	4.83800E-002	6.00000E-005	5.42000E-003	4.98000E-003	0.00000E+000	5.78422E+000	5.78422E+000	1.77000E-003	0.00000E+000	5.82144E+000
Pavers	6.27000E-003	6.93900E-002	5.62800E-002	9.00000E-005	3.39000E-003	3.12000E-003	0.00000E+000	8.25421E+000	8.25421E+000	2.57000E-003	0.00000E+000	8.30817E+000
Paving Equipment	4.68000E-003	5.23700E-002	4.99500E-002	8.00000E-005	2.56000E-003	2.36000E-003	0.00000E+000	7.32630E+000	7.32630E+000	2.28000E-003	0.00000E+000	7.37419E+000
Rollers	5.16000E-003	4.98700E-002	3.87100E-002	5.00000E-005	3.43000E-003	3.16000E-003	0.00000E+000	4.78824E+000	4.78824E+000	1.49000E-003	0.00000E+000	4.81954E+000
Rubber Tired Dozers	5.35700E-002	5.93670E-001	4.47320E-001	4.00000E-004	2.75800E-002	2.53700E-002	0.00000E+000	3.71496E+001	3.71496E+001	1.13800E-002	0.00000E+000	3.73886E+001
Tractors/Loaders/Backhoes	1.10140E-001	1.06019E+000	8.40830E-001	1.09000E-003	7.94300E-002	7.30800E-002	0.00000E+000	1.01464E+002	1.01464E+002	3.11300E-002	0.00000E+000	1.02118E+002
Welders	5.70100E-002	1.99600E-001	2.19420E-001	2.90000E-004	1.45500E-002	1.45500E-002	0.00000E+000	2.16454E+001	2.16454E+001	4.64000E-003	0.00000E+000	2.17428E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	2.99000E-003	2.00600E-002	1.85400E-002	3.00000E-005	1.51000E-003	1.51000E-003	0.00000E+000	2.55326E+000	2.55326E+000	2.40000E-004	0.00000E+000	2.55835E+000
Concrete/Industrial Saws	5.81000E-003	4.26100E-002	3.74900E-002	6.00000E-005	3.07000E-003	3.07000E-003	0.00000E+000	5.37656E+000	5.37656E+000	4.70000E-004	0.00000E+000	5.38649E+000
Cranes	6.44200E-002	7.65180E-001	2.74830E-001	5.70000E-004	3.40400E-002	3.13100E-002	0.00000E+000	5.26203E+001	5.26203E+001	1.61400E-002	0.00000E+000	5.29593E+001
Excavators	1.44900E-002	1.60670E-001	1.36840E-001	2.10000E-004	7.91000E-003	7.27000E-003	0.00000E+000	1.96410E+001	1.96410E+001	6.02000E-003	0.00000E+000	1.97673E+001
Forklifts	7.17900E-002	6.22550E-001	4.29800E-001	5.30000E-004	5.12300E-002	4.71400E-002	0.00000E+000	4.88372E+001	4.88372E+001	1.49800E-002	0.00000E+000	4.91519E+001
Generator Sets	6.49100E-002	5.09870E-001	4.33690E-001	7.60000E-004	3.41600E-002	3.41600E-002	0.00000E+000	6.49988E+001	6.49988E+001	5.21000E-003	0.00000E+000	6.51082E+001
Graders	9.53000E-003	9.64100E-002	4.83800E-002	6.00000E-005	5.42000E-003	4.98000E-003	0.00000E+000	5.78422E+000	5.78422E+000	1.77000E-003	0.00000E+000	5.82143E+000
Pavers	6.27000E-003	6.93900E-002	5.62800E-002	9.00000E-005	3.39000E-003	3.12000E-003	0.00000E+000	8.25420E+000	8.25420E+000	2.57000E-003	0.00000E+000	8.30816E+000
Paving Equipment	4.68000E-003	5.23700E-002	4.99500E-002	8.00000E-005	2.56000E-003	2.36000E-003	0.00000E+000	7.32629E+000	7.32629E+000	2.28000E-003	0.00000E+000	7.37418E+000
Rollers	5.16000E-003	4.98700E-002	3.87100E-002	5.00000E-005	3.43000E-003	3.16000E-003	0.00000E+000	4.78823E+000	4.78823E+000	1.49000E-003	0.00000E+000	4.81953E+000
Rubber Tired Dozers	5.35700E-002	5.93670E-001	4.47320E-001	4.00000E-004	2.75800E-002	2.53700E-002	0.00000E+000	3.71495E+001	3.71495E+001	1.13800E-002	0.00000E+000	3.73886E+001
Tractors/Loaders/Backhoes	1.10140E-001	1.06019E+000	8.40830E-001	1.09000E-003	7.94300E-002	7.30800E-002	0.00000E+000	1.01464E+002	1.01464E+002	3.11300E-002	0.00000E+000	1.02118E+002
Welders	5.70100E-002	1.99600E-001	2.19420E-001	2.90000E-004	1.45500E-002	1.45500E-002	0.00000E+000	2.16454E+001	2.16454E+001	4.64000E-003	0.00000E+000	2.17428E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.85649E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.14024E-006	1.14024E-006	0.00000E+000	0.00000E+000	1.13294E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.52742E-006	1.52742E-006	0.00000E+000	0.00000E+000	1.01177E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.02381E-006	1.02381E-006	0.00000E+000	0.00000E+000	1.22070E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23079E-006	1.23079E-006	0.00000E+000	0.00000E+000	1.22872E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.71779E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21150E-006	1.21150E-006	0.00000E+000	0.00000E+000	1.20363E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.36495E-006	1.36495E-006	0.00000E+000	0.00000E+000	1.35608E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.08845E-006	2.08845E-006	0.00000E+000	0.00000E+000	2.07489E-006
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.07673E-006	1.07673E-006	0.00000E+000	0.00000E+000	1.06984E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18268E-006	1.18268E-006	0.00000E+000	0.00000E+000	1.17511E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.23985E-007	9.23985E-007	0.00000E+000	0.00000E+000	1.37977E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	

No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)			
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.18	0.05	0.18	0.05	0.00	0.00
Demolition	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.07	0.03	0.07	0.03	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.09	0.05	0.09	0.05	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	7.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.78	1.86	1.62	2.07	1.99	2.00	0.00	2.10	2.10	1.98	0.00	2.10
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	15.73	16.35	19.41	19.87	16.69
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Low Density Suburban

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
Yes	Land Use	Increase Density	0.15	24.00		
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

Yes	Neighborhood Enhancements	Improve Pedestrian Network	2.00	Project Site and Connecting Off-Site		
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.01			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.02			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.02			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	3.00			
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program	5.00			
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.02			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
Yes	No Hearth	
Yes	Use Low VOC Cleaning Supplies	
Yes	Use Low VOC Paint (Residential Interior)	100.00
Yes	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	150.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00

DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
Yes	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	