



Final

Heritage Ridge Residential Project EIR

SCH # 2015041014

Lead Agency: City of Goleta



Prepared with the assistance of:
Rincon Consultants, Inc.

Volume II: Appendices

February 2023

Appendix A

Notice of Preparation & Responses





**NOTICE OF PREPARATION
OF A DRAFT ENVIRONMENTAL IMPACT REPORT
AND SCOPING MEETING**

Planning and Environmental Review Department
April 6, 2015

**HERITAGE RIDGE RESIDENTIAL PROJECT; CASE NO. 14-049-VTM-DP-GPA
North of Camino Vista and East of S. Los Carneros Road;
APNs 073-060-031 through -043**

NOTICE IS HEREBY GIVEN that the Planning and Environmental Review Department of the City of Goleta is providing a Notice of Preparation (NOP) for a Draft Environmental Impact Report (DEIR) and will conduct a scoping meeting on the date set forth below for the Heritage Ridge Residential Project proposed by the Towbes Group, Inc.

PROJECT LOCATION: The project would be located on a vacant 16.2 acre site north of Camino Vista and east of S. Los Carneros Road within the City of Goleta, Santa Barbara County. The site is located south of U.S. Highway 101 and the Union Pacific Railroad corridor and would be accessed from Camino Vista. The surrounding land uses include: the freeway and railroad tracks to the north; a vacant site for a future residential development (Villages at Los Carneros) to the west of Los Carneros Road; industrial businesses to the east; and residential uses (Willow Springs I and II) to the south. The project is proposed on Assessor's Parcel Numbers (APNs) 073-060-031 through -043.

GENERAL PLAN: Medium Density Residential (R-MD)

ZONING: Design Residential, 20 units/acre (DR-20)

PROJECT DESCRIPTION: The proposed project involves the development of two housing concepts and a neighborhood park. One housing component would be a seniors' (62 years and older) rental apartment development totaling 132 units in two buildings. The second component would be 228 units of rental workforce apartments (housing that is intended to be occupied by households whose head is in the workforce) in six buildings. All 360 units will be rental apartment units. A two-acre neighborhood park would be a feature of the project as required by the City's General Plan. The project application also includes a Vesting Tentative Map to consolidate 13 existing parcels into three parcels and a modification of zoning regulations to provide 152 spaces for the senior apartments rather than the required 183 spaces and to provide 345 spaces for the workforce housing rather than the required 367 spaces. A General Plan Amendment has been requested to remove a designation of Environmentally Sensitive Habitat Area (ESHA) on General Plan Open Space and Conservation Element Maps.

PURPOSE OF NOTICE OF PREPARATION AND SCOPING MEETING: The City of Goleta will be the Lead Agency under the California Environmental Quality Act (CEQA) and will prepare an Environmental Impact Report (EIR) for this project. The purpose of the Notice of Preparation/Notice of Public Scoping Meeting is to obtain agency and public comment on the adequacy of the scope of analysis and content of the environmental information and analysis to

be conducted, including significant environmental issues, reasonable alternatives, and mitigation measures that should be included in the DEIR. Reference: California Code of Regulations, Title 14 (CEQA Guidelines) Sections 15082(a), 15103, and 15375.

EIR SCOPE OF ANALYSIS: The EIR is intended to provide decision-makers and the public with information that enables them to consider the environmental consequences of the proposed project. The EIR would identify potentially significant effects, and any feasible means of avoiding or reducing the effects through project redesign, the imposition of mitigation measures, or implementation of alternatives to the project. The EIR will address the issue areas listed in the CEQA Guidelines Appendix G Checklist as well as cumulative impacts. The specific issues to be addressed include the following:

Aesthetics	Air Quality
Biological Resources	Cultural Resources
Geology/Soils	Greenhouse Gases
Hazards and Hazardous Materials	Hydrology/Water Quality
Land Use/Planning	Noise
Population/Housing	Public Services
Recreation	Transportation/Traffic
Utilities/Service Systems	

The issues of Agriculture and Forestry will not be addressed as the project site is not on agricultural or forest land and will not conflict with existing zoning for agricultural or forestry lands. Additionally, mineral resources will not be addressed as no minerals are known to be on the site that would be of value to the region or residents of the site.

The City of Goleta's Environmental Hearing Officer will conduct one public scoping meeting for the proposed project to receive oral and written testimony at the time and place listed below.

MEETING DATE AND TIME: **Wednesday, April 29, 2015, at 5:00 PM**

PLACE: **Goleta City Hall, Council Chambers
130 Cremona Drive, Suite B
Goleta, California 93117**

All interested parties are encouraged to attend the scoping meeting and to present written and/or oral comments.

NOTICE OF PREPARATION PUBLIC COMMENT PERIOD: The public comment period begins on April 6, 2015 and ends on May 6, 2015 (30 days). All letters should be addressed to Ms. Stephanie Diaz, Contract Planner, City of Goleta, 130 Cremona Drive, Suite B, Goleta, CA 93117 or sdiaz@cityofgoleta.org. Ms. Diaz can be reached at 805-961-7549. **All comments must be received no later than May 6, 2015 at 5:00 PM or submitted at the hearing.** Please limit comments to environmental issues.

NOTE: In compliance with the Americans with Disability Act, if you need special assistance to participate in the hearing, please contact the City Clerk at (805) 961-7500. Notification at least 48 hours prior to the meeting will enable staff to make reasonable arrangements to accommodate special needs.

Published: *Santa Barbara News-Press*, April 6, 2015



EDMUND G. BROWN JR.
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

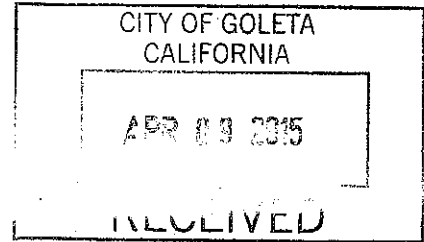


KEN ALEX
DIRECTOR

Notice of Preparation

April 3, 2015

To: Reviewing Agencies
Re: Heritage Ridge Residential Project
SCH# 2015041014



Attached for your review and comment is the Notice of Preparation (NOP) for the Heritage Ridge Residential Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

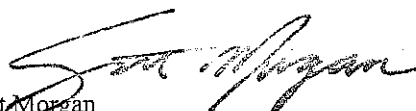
Please direct your comments to:

Stephanie Diaz
City of Goleta
130 Cremona Drive, Suite B
Goleta, CA 93117

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,


Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

**Document Details Report
State Clearinghouse Data Base**

SCH# 2015041014
Project Title Heritage Ridge Residential Project
Lead Agency Goleta, City of

Type NOP Notice of Preparation
Description -Development of 360 rental units - 132 for seniors (62 years and older) and 228 workforce apartments;
-Development of a two-acre neighborhood park;
-Modification to allow reduction in parking from 183 parking spaces to 152 parking spaces for the Senior Apartments;
-Vesting Tentative Map to consolidate 13 existing parcels into three parcels;
-General Plan Amendment to remove a mapping designation of Environmental Sensitive Habitat area on site as denoted in the City's Open Space and Conservation Elements.

Lead Agency Contact

Name Stephanie Diaz
Agency City of Goleta
Phone 805 961 7549 **Fax**
email
Address 130 Cremona Drive, Suite B
City Goleta **State** CA **Zip** 93117

Project Location

County Santa Barbara
City Goleta
Region
Cross Streets Camino Vista and Calle Koral
Lat / Long 34° 4.36' 0.22" N / 119° 8.51' 5.07" W
Parcel No. 073-060-031 through -043
Township 4N **Range** 28W **Section** 7/18 **Base** SBB&M

Proximity to:

Highways US 101
Airports Santa Barbara
Railways UPRR
Waterways Goleta Slough
Schools UCSB
Land Use Vacant / Design Residential, 20 units per acre; / Medium Density Residential & Affordable Housing Opportunity Site (20-25 du/ac)

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Soil Erosion/Compaction/Grading; Solid Waste; Traffic/Circulation; Water Quality; Water Supply; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife; Region 5; Department of Housing and Community Development; Office of Emergency Services, California; Native American Heritage Commission; Public Utilities Commission; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 5; Air Resources Board; Regional Water Quality Control Board, Region 3

Date Received 04/03/2015 **Start of Review** 04/03/2015 **End of Review** 05/04/2015

NOP Distribution List

<input checked="" type="checkbox"/> Resources Agency Nadell Gayou	<input type="checkbox"/> Fish & Wildlife Region 1E Laurie Harnsberger	<input type="checkbox"/> OES (Office of Emergency Services) Dennis Castrillo	<input type="checkbox"/> Regional Water Quality Control Board (RWQCB)
<input type="checkbox"/> Dept. of Boating & Waterways Nicole Wong	<input type="checkbox"/> Fish & Wildlife Region 2 Jeff Drongesen	<input type="checkbox"/> Native American Heritage Comm. Debbie Treadway	<input type="checkbox"/> RWQCB 1 Cathleen Hudson North Coast Region (1)
<input checked="" type="checkbox"/> California Coastal Commission Elizabeth A. Fuchs	<input type="checkbox"/> Fish & Wildlife Region 3 Charles Armor	<input checked="" type="checkbox"/> Public Utilities Commission Leo Wong	<input type="checkbox"/> RWQCB 2 Environmental Document Coordinator San Francisco Bay Region (2)
<input type="checkbox"/> Colorado River Board Lisa Johansen	<input type="checkbox"/> Fish & Wildlife Region 4 Julie Vance	<input type="checkbox"/> Santa Monica Bay Restoration Guangyu Wang	<input checked="" type="checkbox"/> RWQCB 3 Central Coast Region (3)
<input type="checkbox"/> Dept. of Conservation Elizabeth Carpenter	<input checked="" type="checkbox"/> Fish & Wildlife Region 5 Leslie Newton-Reed Habitat Conservation Program	<input type="checkbox"/> State Lands Commission Jennifer Deleong	<input type="checkbox"/> RWQCB 4 Teresa Rodgers Los Angeles Region (4)
<input type="checkbox"/> California Energy Commission Eric Knight	<input type="checkbox"/> Fish & Wildlife Region 6 Tiffany Ellis Habitat Conservation Program	<input type="checkbox"/> Tahoe Regional Planning Agency (TRPA) Cherry Jacques	<input type="checkbox"/> RWQCB 5S Central Valley Region (5)
<input type="checkbox"/> Cal Fire Dan Foster	<input type="checkbox"/> Fish & Wildlife Region 6 I/M Heidi Slickler Inyo/Mono, Habitat Conservation Program	<input checked="" type="checkbox"/> Cal State Transportation Agency CalSTA	<input type="checkbox"/> RWQCB 5F Central Valley Region (5) Fresno Branch Office
<input type="checkbox"/> Central Valley Flood Protection Board James Herotia	<input type="checkbox"/> Dept. of Fish & Wildlife M George Isaac Marine Region	<input type="checkbox"/> Caltrans - Division of Aeronautics Philip Crimmins	<input type="checkbox"/> RWQCB 5R Central Valley Region (5) Redding Branch Office
<input type="checkbox"/> Office of Historic Preservation Ron Parsons	<input type="checkbox"/> Other Departments	<input type="checkbox"/> Caltrans - Planning HQ LD-IGR Terri Pencovic	<input type="checkbox"/> RWQCB 6 Lahontan Region (6)
<input checked="" type="checkbox"/> Dept of Parks & Recreation Environmental Stewardship Section	<input type="checkbox"/> Food & Agriculture Sandra Schubert Dept. of Food and Agriculture	<input checked="" type="checkbox"/> California Highway Patrol Suzann Ikeuchi Office of Special Projects	<input type="checkbox"/> RWQCB 6V Lahontan Region (6) Victorville Branch Office
<input type="checkbox"/> California Department of Resources, Recycling & Recovery Sue O'Leary	<input type="checkbox"/> Dept. of General Services Public School Construction	<input type="checkbox"/> Dept. of Transportation	<input type="checkbox"/> RWQCB 7 Colorado River Basin Region (7)
<input type="checkbox"/> S.F. Bay Conservation & Dev't. Comm. Steve McAdam	<input type="checkbox"/> Dept. of General Services Anna Garbeff Environmental Services Section	<input type="checkbox"/> Caltrans, District 1 Rex Jackman	<input type="checkbox"/> RWQCB 8 Santa Ana Region (8)
<input checked="" type="checkbox"/> Dept. of Water Resources Agency Nadell Gayou	<input type="checkbox"/> Delta Stewardship Council Kevan Samsam	<input type="checkbox"/> Caltrans, District 2 Marcelino Gonzalez	<input type="checkbox"/> RWQCB 9 San Diego Region (9)
<input type="checkbox"/> Fish and Game	<input checked="" type="checkbox"/> Housing & Comm. Dev. CEQA Coordinator Housing Policy Division	<input type="checkbox"/> Caltrans, District 3 Eric Federicks - South Susan Zanchi - North	<input type="checkbox"/> Other
<input type="checkbox"/> Dept. of Fish & Wildlife Scott Flint Environmental Services Division	<input type="checkbox"/> Independent Commissions, Boards	<input type="checkbox"/> Caltrans, District 4 Erik Alm	
<input type="checkbox"/> Fish & Wildlife Region 1 Donald Koch	<input type="checkbox"/> Delta Protection Commission Michael Machado	<input checked="" type="checkbox"/> Caltrans, District 5 Larry Newland	
		<input type="checkbox"/> Caltrans, District 6 Michael Navarro	
		<input type="checkbox"/> Caltrans, District 7 Dianna Watson	
		<input type="checkbox"/> Dept. of Toxic Substances Control CEQA Tracking Center	
		<input type="checkbox"/> Department of Pesticide Regulation CEQA Coordinator	
		<input type="checkbox"/> Conservancy	

Notice of Completion & Environmental Document Transmittal

2015041014

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Heritage Ridge Residential Project

Lead Agency: City of Goleta Contact Person: Stephanie Diaz
Mailing Address: 130 Cremona Dr, Suite B, Phone: 805-961-7549
City: Goleta Zip: 93117 County: Santa Barbara

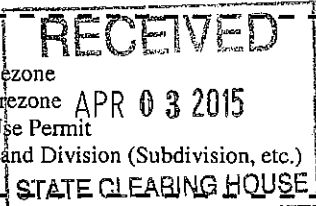
Project Location: County: Santa Barbara City/Nearest Community: Goleta
Cross Streets: Camino Vista and Calle Korai Zip Code: 93117
Longitude/Latitude (degrees, minutes and seconds): 34 0436 022 " N / 119 0851 507 " W Total Acres: 16.2 acres
Assessor's Parcel No.: 073-060-031 through -043 Section: 07&18 Twp.: 4N Range: 28W Base: SBBM
Within 2 Miles: State Hwy #: US 101 Waterways: Goleta Slough
Airports: Santa Barbara Railways: Union Pacific Schools: UCSB

Document Type:

CEQA: [X] NOP [] Draft EIR NEPA: [] NOI Other: [] Joint Document
[] Early Cons [] Supplement/Subsequent EIR [] EA [] Final Document
[] Neg Dec (Prior SCH No.) [] Draft EIS [] Other:
[] Mit Neg Dec Other:

Local Action Type:

[] General Plan Update [] Specific Plan [] Rezone [] Annexation
[X] General Plan Amendment [] Master Plan [] Prezone APR 03 2015 [] Redevelopment
[] General Plan Element [] Planned Unit Development [X] Use Permit [] Coastal Permit
[] Community Plan [X] Site Plan [X] Land Division (Subdivision, etc.) [] Other:



Development Type:

[X] Residential: Units 360 Acres 16.2
[] Office: Sq.ft. Acres Employees
[] Commercial: Sq.ft. Acres Employees
[] Industrial: Sq.ft. Acres Employees
[] Educational:
[] Recreational:
[] Water Facilities: Type MGD
[] Transportation: Type
[] Mining: Mineral
[] Power: Type MW
[] Waste Treatment: Type MGD
[] Hazardous Waste: Type
[] Other:

Project Issues Discussed in Document:

[X] Aesthetic/Visual [] Fiscal [X] Recreation/Parks [] Vegetation
[] Agricultural Land [] Flood Plain/Flooding [] Schools/Universities [X] Water Quality
[X] Air Quality [] Forest Land/Fire Hazard [] Septic Systems [X] Water Supply/Groundwater
[X] Archeological/Historical [X] Geologic/Seismic [] Sewer Capacity [] Wetland/Riparian
[X] Biological Resources [] Minerals [X] Soil Erosion/Compaction/Grading [] Growth Inducement
[] Coastal Zone [X] Noise [X] Solid Waste [X] Land Use
[] Drainage/Absorption [X] Population/Housing Balance [] Toxic/Hazardous [X] Cumulative Effects
[] Economic/Jobs [X] Public Services/Facilities [X] Traffic/Circulation [] Other:

Present Land Use/Zoning/General Plan Designation:

Vacant/ Design Residential, 20 units per acre; / Medium Density Residential & Affordable Housing Opportunity Site (20-25 du/ac)

Project Description: (please use a separate page if necessary)

- Development of 360 rental units - 132 for seniors (62 years and older) and 228 workforce apartments;
-Development of a two-acre neighborhood park;
-Modification to allow reduction in parking from 183 parking spaces to 152 parking spaces for the Senior Apartments;
-Modification to allow reduction in parking from 367 parking spaces to 345 parking spaces for the Workforce apartments;
-Vesting Tentative Map to consolidate 13 existing parcels into three parcels;
-General Plan Amendment to remove a mapping designation of Environmental Sensitive Habitat area on site as denoted in the City's Open Space and Conservation Elements.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

MTD

Santa Barbara

17 June 2014

Mary Chang, Senior Planner
City of Goleta
Planning & Environmental Review
130 Cremona Drive, Suite B
Goleta, CA 93117

Dear Mary,

Thank you for the opportunity to review the plans for the North Willow Springs project near Hollister Avenue & Los Carneros Way.

As you know, the Santa Barbara Metropolitan Transit District (MTD) provides fixed route transit service for southern Santa Barbara County. This location is currently served by Lines 6 and 12x.

Because of the additional transit demand that will be generated by the residents of this development, MTD requests that the project be conditioned to provide improvements to the bus stops currently at Los Carneros Way on both sides of Hollister Avenue, consistent with City of Goleta General Plan Policy TE 7.12.

MTD recommends that the bus stop on the north side of Hollister Avenue (west-bound) be improved in its current location. With respect to the bus stop on the south side of Hollister (east-bound): MTD has requested that if the Target project is approved, the bus stop be relocated immediately to the far side of the future Camino Vista intersection. That new intersection must, of course, provide for safe pedestrian crossings. If the Target project is not approved, MTD requests that the stop be moved closer to the far side of the Los Carneros Way intersection. In either case, continuous sidewalk access should be provided between the intersection and the bus stop.

Improving the bus stops entails providing ADA-compliant concrete boarding pads, shelters with night lighting for safety, benches, and trash receptacles consistent with current MTD Bus Stop Standards. MTD does not require bus turnouts, but if the City of Santa Barbara or City of Goleta requires them, MTD requests that they be long enough to accommodate 60' articulated buses by providing at least 70' of pocket plus an additional 30' of ingress and 15' of egress.

You probably remember that MTD submitted a similar letter regarding the Target project to you on November 20, 2013. Should you have any questions about the above comments, please feel free to contact me at (805) 963-3364 extension 218 or at the email address below.

Sincerely,



Cynthia Boche
Assistant Planning Manager
cboche@sbmtd.gov



Fire Department

"Serving the community since 1926"

Michael W. Dyer
Fire Chief
County Fire Warden

Eric Peterson
Deputy Fire Chief

HEADQUARTERS

4410 Cathedral Oaks Road
Santa Barbara, CA 93110-1042
(805) 681-5500 FAX: (805) 681-5563

June 26, 2014

Ms. Mary Chang
Planning and Environmental Services
City of Goleta
130 Cremona Drive, #B
Goleta, CA 93117

Dear Ms. Chang:

SUBJECT: APN: 073-060-031 ...; Permit #: 14-049-GPA/VTM/DP/CUP
Site: North of Calle Koral / West of Los Carneros, Goleta
Project Description: GPA, VTM, DP, CUP

DETERMINATION OF APPLICATION INCOMPLETENESS

I have reviewed your project and find that it will require some corrections before it can be approved by the Santa Barbara County Fire Department. The following information must be included with your revised plans.

1. Revised plans shall include a complete plan showing the following driveway information. All plans must be drawn to scale and shall call out all dimensions and turning radii requirements.
 - Width of access.
Driveways shall have minimum widths of 24 feet or 26 feet.

PLAN STATUS

Please re-submit four sets of corrected site plans to Planning and Development, Attention Fire Department. The plans must be clearly marked "CORRECTED". Submit plans to Planning and Development as part of incompleteness re-submittal.

In addition, the following fire department conditions shall be required for the Fire Protection Certificate.

*Serving the cities of Buellton, Goleta and Solvang, and the Communities of Casmalia, Cuyama, Gaviota, Hope Ranch,
Los Alamos, Los Olivos, Mission Canyon, Mission Hills, Orcutt, Santa Maria, Sisquoc, Vandenberg Village*

2. Fire Protection Certificates will be required.
3. Road naming shall be required for this project.
4. If a building or portion of a building exceeds 30 feet in height, Section D 105 of the CFC shall be followed.
5. If elevators are required for this project, the elevator car(s) shall be able to accommodate a 24-inch by 84-inch ambulance stretcher in the horizontal, open position.
 - Emergency medical services symbols shall be placed on both sides of the elevator car door frame.
 - The symbol shall be a minimum of 3 inches high.
6. Street signs shall be installed.
7. New fire hydrants shall be installed, number to be determined.
 - The fire department shall have on file a set of approved fire hydrant plans prior to any work being started.
 - Fire hydrants shall be located per fire department specifications and shall flow 1250 gallons per minute at a 20 psi residual pressure.
 - Commercial fire hydrant(s) shall consist of one 4-inch outlet and two 2-1/2-inch outlets.
 - A set of approved fire hydrant plans, stamped and dated by the fire department shall be kept at the job site and available upon request.
 - Water systems shall be installed exactly as the approved fire hydrant plans dictate. No changes or modifications to these plans shall take place without prior fire department approval.
 - No work shall be covered or otherwise rendered inaccessible or unviewable prior to inspection by a fire department representative.
8. Signs indicating "Fire Lane – No Stopping" shall be placed every 150 feet as required by the fire department. Refer to current adopted California Fire Code.
9. Portable fire extinguishers are required and shall be in accordance with the current adopted Santa Barbara County Code Chapter 15.

10. An automatic fire sprinkler system shall be installed.

- Fire sprinkler plans shall be approved by the fire department prior to installation.
- A set of approved plans, stamped and dated by the fire department shall be kept at the job site and available upon request.
- The fire department shall determine the location of any fire department connection (FDC) that may be required.
- Fire Department Connection (FDC) shall be labeled per NFPA 13.
- Water systems shall be installed exactly as the approved plans dictate. No changes or modifications to these plans shall take place without prior fire department approval.
- No work shall be covered or otherwise rendered inaccessible or unviewable prior to inspection by the fire department.

11. An automatic fire or emergency alarm system shall be installed.

- Fire alarm system shall meet Santa Barbara County Fire Department requirements.
- Automatic fire or emergency alarm system plans shall be approved by the fire department.
- Alarm panel locations and annunciator graphics shall be approved by fire department prior to installation.

12. Recorded addressing for the residences is required by the fire department.*

13. Address numbers shall be a minimum height of four inches for residential.

- Address number location(s) shall be approved by the fire department.
- Address numbers shall be a color contrasting to the background color.
- The address numbers shall be elevated at least three feet from the ground for clear visibility and easy directional identification.
- The numbers shall be visible from the access road when travelling in either direction.

14. Access way entrance gates shall conform to fire department standards.

15. When access ways are gated, a fire department approved locking system shall be installed.

16. The applicant will be required to pay development impact fees. In accordance with Chapter 15 of the Santa Barbara County Code, the fee shall be computed per square foot on each new building, including non-habitable spaces, paid for the purpose of mitigating the incremental increase in needs for emergency services generated by the development.

Estimated fees:

\$.10 per square foot for structures with fire sprinklers

Fire Facility Development Impact Fee
Goleta Planning Area

Development impact fees are collected at the current rate at time of payment.

Final occupancy clearance inspection will not be scheduled unless fees have been paid.

If you have questions or need clarification of the conditions contained in this letter, please contact me, 805-681-5528 or 805-681-5523.

In the interest of life and fire safety,



Dwight Pepin, Captain
Fire Prevention Division

*Information is posted at sbcfire.com. Select Doing Business/Planning and Engineering. To have information provided, telephone 805-681-5523.

DP:mkb

c Goleta Water District, 4699 Hollister Av, Goleta 93110



www.goletawest.com

phone: 805 968-2617, fax: 805 562-8987

P.O. Box 4, Goleta, CA 93116-0004

UCSB Campus Parking Lot 32, Santa Barbara, CA 93106

March 18, 2014

The Towbes Group, Inc.
21 East Victoria Street, Suite 200
Santa Barbara, CA 93101

RE: SEWER AVAILABILITY LETTER FOR APN: 073-060-(031 thru 043)

Project: Willow Springs North

To whom it may concern:

The property referenced above at APN# (073-060-(031 thru 043)) is within the boundaries of the Goleta West Sanitary District (GWSD).

Santa Barbara County sewer policy and District Ordinance No. 60 requires that any sewage generating uses constructed on this property be connected to a community sewer system.

Sewer capacity of three-hundred-sixty (360) ERUs in District facilities is presently available to serve the property, and is expected to be available to serve the property if it is connected to the District sewer system pursuant to a District Sewer Service Connection Permit within one year from the date of this letter. The District makes no representation concerning sewer capacity beyond the period stated above.

In order to secure a District Sewer Service Connection Permit for the property, it will be necessary to comply with all District requirements for the issuance of a Connection Permit, including payment of all required fees.

Please confirm your acceptance of the terms and conditions outlined herein by signing the acceptance statement below.

Sincerely,

GOLETA WEST SANITARY DISTRICT

TO: GOLETA WEST SANITARY DISTRICT

RE: APN 073-060-(031 thru 043)

We hereby confirm our acceptance of the terms and conditions outlined in this Sewer Availability Letter.

Heidi Jones, Agent
Signature of Owner or their agent.

Date 3/18/14

Date _____



**Santa Barbara County
Air Pollution Control District**

Our Vision  Clean Air

June 19, 2014

Mary Chang
Planning & Environmental Review
City of Goleta
130 Cremona Drive, Suite B
Goleta, CA 93117

Re: APCD Comments on North Willow Springs, 14-049-GPA-VTM-DP-CUP

Dear Ms. Chang:

The Santa Barbara County Air Pollution Control District (APCD) appreciates the opportunity to provide comments on the proposed North Willow Springs project. The Towbes Group proposes to construct a 360 residential unit development consisting of two areas: Area A will be a senior housing development with 108 one-bedroom units and 24 two-bedroom units, and Area B will be apartment housing of 149 one-bedroom units, 55 two-bedroom units, and 24 three-bedroom units. Area B abuts the Union Pacific Railroad and Highway 101. The subject property, a 16.2-acre site zoned DR-20 and identified in the Assessor Parcel Map Book as APN 073-060-031 through -043, is located at Calle Koral and Los Carneros, north of the Willow Springs and Willow Springs II developments, in the City of Goleta.

APCD's guidance document, entitled *Scope and Content of Air Quality Sections in Environmental Documents* (updated March, 2014), is available online at www.sbcapcd.org/apcd/landuse.htm. This document should be referenced for general guidance in assessing air quality impacts in any upcoming environmental documents for the project. An environmental analysis should evaluate the following potential impacts related to the North Willow Springs project:

1. Proximity to Highway 101. APCD staff recommends that sensitive land uses, such as residential, should not be sited within 500 feet of the highway. This is based on guidance from the California Resources Board (*Air Quality and Land Use Handbook: A Community Health Perspective*, CARB, April 2005) and supplemented by information gathered by APCD, summarized in the attached "Public Health and High Traffic Roadways".

This recommendation is based on a number of proximity studies that were conducted in areas throughout the state. The studies link traffic-related air pollutant emissions to a number of health effects, such as increased cancer risk, reduced lung function, increased asthma and bronchitis, and increased medical visits. The studies are not based on specific pollutants or dose-response relationships, and no mitigation or threshold is identified that can reduce the proximity-related impacts other than increasing the distance between the sensitive receptors and the road. This is not intended to discourage mitigation measures such as particulate filters in household ventilation systems.

Siting of sensitive receptors within 500 feet of the freeway would potentially increase the occurrence of respiratory illness for future residents in the project area, and should be discussed in the Air Quality section of the environmental document.

2. Attainment Status and Consistency with the APCD Clean Air Plan (CAP). The APCD has posted the most up-to-date attainment status for the County on the APCD website www.sbcapcd.org/sbc/attainment.htm and the most recent Clean Air Plan is available at www.sbcapcd.org/cap.htm. The website should be consulted for the most up-to-date air quality information. The 2010 CAP used the 2007 regional growth factors for land use and population projections provided by the Santa Barbara County Association of Governments (SBCAG), along with on-road emissions forecasts provided by the California Air Resources Board (ARB) as a basis for vehicle emissions forecasting. The environmental analysis should examine whether the proposed project will be consistent with the growth assumptions in the 2010 CAP.

3. Increase in Emissions from Proposed Project. The environmental analysis should present significance thresholds for ozone precursor emissions (reactive organic compounds [ROC], and oxides of nitrogen [NO_x]) and particulate matter and determine whether the proposed project will produce emissions in excess of the thresholds. APCD's *Scope and Content* document contains the APCD Board-adopted criteria for evaluating the significance of adverse air quality impacts for APCD projects. In the absence of locally-adopted thresholds, APCD recommends that these thresholds be used to determine significance of air quality impacts.

The proposed project will involve air quality impacts associated with motor vehicle trips from the residential population of the project. The air quality impact analysis for mobile source emissions should be based on project-specific information and supported by a traffic study whenever possible. In addition to motor vehicle emissions, the analysis should include emissions associated with unpermitted stationary sources such as residential and commercial heating and cooling equipment. These emissions (termed "area source" emissions) should be included in the operational phase emission evaluation.

If the proposed project exceeds the significance thresholds for air quality, mitigations should be applied to reduce those emissions to below the levels of significance. Section 6 of APCD's *Scope and Content* document offers ideas for air quality mitigations. However, project-specific measures should be developed that are pertinent to the specific project and are enforceable by the lead agency.

4. Construction Impacts. The EIR should include a description and quantification of potential air quality impacts associated with construction activities for the proposed project. APCD's March 2014 *Scope and Content* document, Section 6, presents recommended mitigation measures for fugitive dust and equipment exhaust emissions associated with construction projects. Construction mitigation measures should be enforced as conditions of approval for the project. The environmental analysis should include a Mitigation Monitoring and Reporting Plan that explicitly states the required mitigations and establishes a mechanism for enforcement.

5. Asbestos Reporting Requirements. If the project will involve any demolition or renovation of existing structures, the environmental analysis should discuss notification and reporting requirements pursuant to APCD Rule 1001 – National Emission Standards for Hazardous Air Pollutants (NESHAP) – Asbestos.

6. Global Climate Change/Greenhouse Gas impacts. Greenhouse gas (GHG) emissions and global climate change impacts should be addressed in the CEQA document. Global climate change is a

cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases.

CEQA documents should include a quantification of GHG emissions from all project sources, direct and indirect, as applicable. In addition, we recommend that climate change impacts be mitigated to the extent reasonably possible, whether or not they are determined to be significant. The discussion of climate change impacts can be included under cumulative air quality impacts or in its own section. At a minimum, the project should include any feasible greenhouse gas reduction measures as applicable from the following sector-based list:

- Energy use (energy efficiency, low carbon fuels, renewable energy)
- Transportation (reduce vehicle miles traveled, compact and transit-oriented development, pedestrian- and bicycle-friendly communities)
- Water conservation (improved practices and equipment, landscaping)
- Waste reduction (material re-use/recycling, composting, waste diversion, waste minimization)
- Architectural features (green building practices, cool roofs)

For guidance regarding greenhouse gas analysis for CEQA environmental documents, please refer to the *CAPCOA CEQA & Climate Change* document. CAPCOA has also published *Quantifying Greenhouse Gas Mitigation Measures*, an extensive sector-by-sector compendium of project-specific mitigation measures, including quantification methods to calculate GHG reductions. Both of these documents are available online at www.capcoa.org.

7. Transportation Measures to Reduce Air Quality Impacts. The North Willow Springs project and the associated environmental analysis should include measures that promote the use of alternate modes of transportation and focus on reducing vehicle miles traveled, vehicle trips, and peak-hour travel. Because the North Willow Springs project involves a substantial amount of new residential development, the ability of existing transit services to support the increased population should be evaluated. Enhancements to existing services and schedules, and/or additional routes may be necessary for the project area and surrounding community.

We hope you find our comments useful. Please contact me at 961-8890 or cvw@sbcapcd.org if you have questions.

Sincerely,



Carly Wilburton
Air Quality Specialist
Technology and Environmental Assessment Division

Attachment: Public Health and High Traffic Roadways

cc: TEA Chron File

Public Health and High Traffic Roadways

California Air Resources Board Recommended Policy:

Sensitive land uses such as residences, schools, day care centers, playgrounds, and medical facilities should not be sited within 500 feet of:

- A freeway
- Urban roads with 100,000 or more vehicles/day
- Rural roads with 50,000 or more vehicles/day

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

Reason for the Policy:

Many studies show that living in proximity to freeways and other high traffic roadways leads to adverse health effects beyond those associated with regional air pollution. A number of studies that focused on children have found slower lung development and significant increases in the incidence of lung disease, such as asthma, bronchitis, and decreased lung function, in children who live or attend school near heavily travelled roadways. In addition to children, seniors, and people with heart and lung conditions are considered particularly sensitive to effects of air pollution. Residence in high-traffic areas has been shown to increase the risk of mortality within a cohort of male veterans.

Health Studies:

The results of health studies suggests that it is important to avoid exposing children and other sensitive populations to the elevated air pollution levels near freeways and other high traffic roads. While particulate pollution is suspected as contributing the most to the adverse health effects, studies have not yet determined which specific pollutants and sources (cf. diesel particulate, re-entrained roadway dust particulate, NO₂ vehicle exhaust, diesel trucks vs. gasoline cars, &c.) are responsible. Additional studies are underway. While significant adverse health effects were observed in children who lived within 1,500 feet of a freeway (Gauderman, 2007), the studies indicate a substantial benefit to a 500 foot separation (McConnell, 2006).

Key Findings:

- Reduced lung function in children is associated with traffic density within 1,000 feet and the strongest association is within 300 feet of the roadway. (Brunekreef, 1997)
- Children living within 550 feet of heavy traffic have more medical visits than children who live further away from traffic. (English, 1999)
- Increased asthma hospitalizations are associated with living within 650 feet of heavy traffic. (Lin, 2000)
- Asthma symptoms increase with proximity to roadways and the risk is greatest within 300 feet. (Venn, 2001)
- Asthma and bronchitis symptoms in children are associated with proximity to high traffic in a community with good overall regional air quality. (Kim, 2004)
- Children living within 150 – 200 meters (~450 feet – 600 feet) of heavy traffic have higher rates of asthma than children living further away from traffic. (McConnell, 2006)
- Children living within 500 meters (~1,500 feet) of heavy traffic have significantly slower lung development than children living further away from traffic. (Gauderman, 2007)
- Survival of members of the Washington University-EPRI Veterans Cohort is strongly and robustly associated with county-average levels of traffic related air pollution and mortality relationships are stronger in the counties with higher levels of traffic density. (Lipfert et al, 2009)

Applicability to Santa Barbara County:

The studies covered children in a variety of urban environments living in proximity to roadways covering a wide spectrum of traffic volumes. The adverse health effects were measured at traffic volumes as low as 41,000 vehicles per day (English) and between 80,000 and 150,000 vehicles per day (Brunekreef). Highway 101, through Santa Barbara County, experiences traffic volumes within the range where health effects have been observed. Also, some parts of Highway 101 see over 7000 diesel trucks per day

(SBCAG). Furthermore, running parallel to Highway 101 through the southern portion of Santa Barbara County is a rail corridor that contributes significantly to the pollution levels near the highway (cf., rail contributes an additional 10% or 0.07 tons per day to mobile source generated PM10 emissions in Santa Barbara County).

2012 Average Daily Traffic (ADT) Volumes for Highway 101 (Caltrans):

US 101 at Storke = 63,600 ADT (Back)

US 101 at Highway 150 = 64,000 ADT

US 101 at Las Positas/Route 225 = 130,000 ADT

US 101 at Highway 166, Santa Maria = 57,400 ADT

Conclusion:

In order to protect the public health, especially the health of children, from the adverse effects of air pollutants generated by traffic on Highway 101, land use policies should prohibit the construction of new residences, schools, day care centers, playgrounds, and medical facilities within 500 feet of Highway 101. No other roadways in Santa Barbara County currently have estimated traffic volumes at the magnitude for which the proximity studies have identified adverse health effects.

References:

- "Air Quality and Land Use: A Community Health Perspective."* California Air Resources Board. (April 2005).
- W. James Gauderman, et al. *"Effect of exposure to traffic on lung development from 10 to 18 years of age: A cohort study."* The Lancet. Volume 369, Issue 9561. 17 February 2007 – 23 February 2007: Pages 571-577.
- Rob McConnell, et al. *"Traffic, Susceptibility, and Childhood Asthma."* Environmental Health Perspectives. Volume 114, Number 5, May 2006.
- John M. Peters, M.D., Sc.D. *"Epidemiologic Investigation to Identify Chronic Effects of Ambient Air Pollutants in Southern California (USC Children's Health Study)."* California Air Resources Board (May 2004).
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- Lin, S. et al. *"Childhood asthma hospitalization and residential exposure to state route traffic."* Environ Res. 2002;88:73-81.
- Venn. et al. *"Living near a main road and the risk of wheezing illness in children."* American Journal of Respiratory and Critical Care Medicine. 2001; Vol.164, pp. 2177-2180.
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- Zhu, Y et al. *"Study of Ultra-Fine Particles Near A Major Highway With Heavy-Duty Diesel Traffic."* Atmospheric Environment. 2002 ; 36:4323-4335.
- Knape, M. *"Traffic related air pollution in city districts near motorways."* The Science of the Total Environment. 1999; 235:339-341.
- Roseville Rail Yard Study.* California Air Resources Board (October 2004).
- ARB Diesel Risk Reduction Plan.* California Air Resources Board (2000).
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- English P., Neutra R., Scalf R. Sullivan M. Waller L. Zhu L. *"Examining Associations between Childhood Asthma and Traffic Flow Using a Geographic Information System."* (1999) Environmental Health Perspectives 107(9): 761-767.
- "2007 Clean Air Plan."* Santa Barbara County Air Pollution Control District (August 2007).
- "2007 Travel Trends Report for Santa Barbara County."* Santa Barbara County Association of Governments. (December 2007)
- Lipfert, F. et al. *"Air Pollution and Survival within the Washington University-EPRI Veterans Cohort: Risks Based on Modeled Estimates of Ambient Levels of Hazardous and Criteria Air Pollutants."* Journal of the Air & Waste Management Association. Vol. 59 April 2009, pp. 473-487.

Stephanie Diaz

From: Huerta, Crystal L. SPL <crystal.huerta@usace.army.mil>
Sent: Wednesday, April 08, 2015 5:50 PM
To: Stephanie Diaz
Subject: Heritage Ridge Residential Project Notice of Preparation (UNCLASSIFIED)
Attachments: ENG 4345 Instructions.pdf; Eng4345_2012OCT.pdf; PCN_Final SPLRegionalConditions_2012-07-18(3).docx

Classification: UNCLASSIFIED
Caveats: NONE

Afternoon Stephanie:

If the projects falls within a water of the U.S. a permit would be required. Attached is a permit application. Please feel free to contact me if you have any questions.

Crystal L. M. Huerta
Senior Project Manager, North Coast Branch Regulatory Division U.S. Army Corps of Engineers, Los Angeles District
2151 Alessandro Drive, Suite 110, Ventura, CA 93001
Tel: (805) 585-2143, Fax: (805) 585-2154 Loyalty*Duty*Respect*Selfless Service*Honor*Integrity*Personal Courage

email: crystal.huerta@usace.army.mil
website: <http://www.spl.usace.army.mil/Missions/Regulatory.aspx>

Assist us in better serving you!
You are invited to complete our customer survey, located at the following link:
http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey.
Note: If the link is not active, copy and paste it into your internet browser.

Classification: UNCLASSIFIED
Caveats: NONE

Stephanie Diaz

From: Rejzek, Tom <Tom.Rejzek@sbcphd.org>
Sent: Monday, April 13, 2015 9:42 AM
To: Stephanie Diaz
Subject: Heritage Ridge Residential Project

Ms. Diaz-

The Santa Barbara County Environmental Health Site Mitigation Unit and Leaking Underground Fuel Tank Program has reviewed your Notice of Preparation for a Draft Environmental Impact Report (DEIR) for the Heritage Ridge Residential Project (Case no. 14-049-VTM-DP –GPA, APNs 073-060-031 through -043) dated April 6, 2015. At this time, we have no comments or concerns regarding this project. Please let our agency know when the DEIR is available for review.

Thomas Rejzek

Professional Geologist #6461

Certified Hydrogeologist #601

Santa Barbara County Environmental Health Services

LUFT/SMU Program

2125 S. Centerpointe Parkway, Suite 333

Santa Maria, CA 93455

805-346-8216

tom.rejzek@sbcphd.org

PUBLIC UTILITIES COMMISSION

320 WEST 4TH STREET, SUITE 500
LOS ANGELES, CA 90013
(213) 576-7083



April 16, 2015

Stephanie Diaz
City of Goleta
130 Cremona Drive, Suite B
Goleta, CA 93117

Dear Ms. Diaz:

Re: SCH 2015041014 Goleta (Santa Barbara County) Heritage Ridge Residential Project - NOP

The California Public Utilities Commission (Commission) has jurisdiction over the safety of highway-rail crossings (crossings) in California. The California Public Utilities Code requires Commission approval for the construction or alteration of crossings and grants the Commission exclusive power on the design, alteration, and closure of crossings in California. The Commission Rail Crossings and Engineering Branch (RCEB) is in receipt of the *Notice of Preparation (NOP)* from the State Clearinghouse for the proposed Heritage Ridge Residential project. The City of Goleta is the lead agency for the project.

The project is located east of Los Carneros Road and generally north of Calle Koral and Camino Vista. It is immediately adjacent to the Union Pacific Railroad (UPRR) Santa Barbara Subdivision right-of-way (ROW) to the north and the existing Los Carneros Road grade-separated crossing (CPUC No. 001E-357.62-A, and DOT No. 745582R) to the west. According to the NOP, the project includes proposed development of residential units and a two-acre neighborhood park, as well as modification of residential parking spaces.

RCEB recommends that the City add language to the Project so that any future development adjacent to or near the railroad/light rail ROW is planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at railroad crossings. Mitigation measures to consider include, but are not limited to, improvements to existing railroad crossings due to increase in traffic volumes, and continuous vandal resistant fencing or other appropriate barriers to limit the access of trespassers onto the railroad ROW.

If you have any questions in this matter, please contact me at (213) 576-7076, ykc@cpuc.ca.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Ken Chiang", with a long horizontal flourish underneath.

Ken Chiang, P.E.
Utilities Engineer
Rail Crossings and Engineering Branch
Safety and Enforcement Division

C: State Clearinghouse



**Santa Barbara County
Air Pollution Control District**

April 28, 2015

Stephanie Diaz
City of Goleta
130 Cremona Drive, Suite B
Goleta, CA 93117

Re: APCD Response to Notice of Preparation of an Environmental Impact Report for the Heritage Ridge Residential Project, 14-049-VTM-DP-GPA

Dear Ms. Diaz:

The Santa Barbara County Air Pollution Control District (APCD) appreciates the opportunity to provide comments on the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Heritage Ridge Residential Project. The Towbes Group proposes to construct a 360 residential unit development consisting of two housing components: Component One will be a senior rental apartment development totaling 132 units in two buildings, and Component Two will be 228 units of rental workforce apartments in six buildings. A two-acre neighborhood park would also be a feature of the project as required by the City's General Plan. The project is within 500 feet of Highway 101 and the Union Pacific Railroad.

The subject property, a 16.2-acre site zoned DR-20 and identified in the Assessor Parcel Map Book as APN 073-060-031 through -043, is located north of Camino Vista and east of S. Los Carneros Road (north of the Willow Springs and Willow Springs II developments), in the City of Goleta.

APCD staff reviewed the Initial Study and NOP of a Draft EIR, and concurs that air quality impacts may be potentially significant and should be addressed in the EIR. APCD's guidance document, entitled *Scope and Content of Air Quality Sections in Environmental Documents* (updated April 2015), is available online at <http://www.ourair.org/apcd/land-use/>. This document should be referenced for general guidance in assessing air quality impacts in the Draft EIR. The EIR should evaluate the following potential impacts related to the Heritage Ridge Residential Project:

1. Proximity to Highway 101. APCD staff recommends that sensitive land uses, such as residential, should not be sited within 500 feet of the highway. This is based on guidance from the California Resources Board (*Air Quality and Land Use Handbook: A Community Health Perspective*, CARB, April 2005) and supplemented by information gathered by APCD, summarized in the attached "Public Health and High Traffic Roadways".

This recommendation is based on a number of proximity studies that were conducted in areas throughout the state. The studies link traffic-related air pollutant emissions to a number of health effects, such as increased cancer risk, reduced lung function, reduced heart health, increased asthma and bronchitis, and increased medical visits. The studies are not based on specific pollutants or dose-response relationships, and no mitigation or threshold is identified that can reduce the proximity-

related impacts other than increasing the distance between the sensitive receptors and the road. This is not intended to discourage mitigation measures such as particulate filters in household ventilation systems.

Siting of sensitive receptors within 500 feet of the freeway would potentially increase the occurrence of respiratory illness and cardiovascular disease for future residents in the project area, and should be discussed in the Air Quality section of the environmental document.

2. Attainment Status and Consistency with the APCD Clean Air Plan (CAP). The APCD has posted the most up-to-date attainment status for the County on the APCD website <http://www.ourair.org/air-quality-standards/> and the most recent Clean Air Plan is available at <http://www.ourair.org/clean-air-plans/>. The website should be consulted for the most up-to-date air quality information prior to the release of the Public Draft EIR.

The 2013 CAP used the 2012 Regional Growth forecast factors for land use and population projections provided by the Santa Barbara County Association of Governments (SBCAG), along with on-road emissions forecasts provided by the California Air Resources Board (ARB) as a basis for vehicle emissions forecasting. The EIR should examine whether the proposed project will be consistent with the growth assumptions in the 2013 CAP.

3. Increase in Emissions from Proposed Project. The environmental analysis should present significance thresholds for ozone precursor emissions (reactive organic compounds [ROC], and oxides of nitrogen [NO_x]) and particulate matter and determine whether the proposed project will produce emissions in excess of the thresholds. APCD's *Scope and Content* document contains the APCD Board-adopted criteria for evaluating the significance of adverse air quality impacts for APCD projects. In the absence of locally-adopted thresholds, APCD recommends that these thresholds be used to determine significance of air quality impacts.

The proposed project will involve air quality impacts associated with motor vehicle trips from the residential population of the project. The air quality impact analysis for mobile source emissions should be based on project-specific information and supported by a traffic study whenever possible. In addition to motor vehicle emissions, the analysis should include emissions associated with unpermitted stationary sources such as residential and commercial heating and cooling equipment. These emissions (termed "area source" emissions) should be included in the operational phase emission evaluation.

If the proposed project exceeds the significance thresholds for air quality, mitigations should be applied to reduce those emissions to below the levels of significance. Section 6 of APCD's *Scope and Content* document offers ideas for air quality mitigations. However, project-specific measures should be developed that are pertinent to the specific project and are enforceable by the lead agency.

4. Construction Impacts. The EIR should include a description and quantification of potential air quality impacts associated with construction activities for the proposed project. APCD's April, 2015 *Scope and Content* document, Section 6, presents recommended mitigation measures for fugitive dust and equipment exhaust emissions associated with construction projects. Construction mitigation measures should be enforced as conditions of approval for the project. The EIR should include a

Mitigation Monitoring and Reporting Plan that explicitly states the required mitigation and establishes a mechanism for enforcement.

5. Asbestos Reporting Requirements. If the project will involve any demolition or renovation of existing structures, the EIR should discuss notification and reporting requirements pursuant to APCD Rule 1001 – National Emission Standards for Hazardous Air Pollutants (NESHAP) – Asbestos.

6. Global Climate Change/Greenhouse Gas impacts. Greenhouse gas (GHG) emissions and global climate change impacts should be addressed in the CEQA document. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases.

CEQA documents should include a quantification of GHG emissions from all project sources, direct and indirect, as applicable. In addition, we recommend that climate change impacts be mitigated to the extent reasonably possible, whether or not they are determined to be significant. The discussion of climate change impacts can be included under cumulative air quality impacts or in its own section. At a minimum, the project should include any feasible greenhouse gas reduction measures as applicable from the following sector-based list:

- Energy use (energy efficiency, low carbon fuels, renewable energy)
- Transportation (reduce vehicle miles traveled, compact and transit-oriented development, pedestrian- and bicycle-friendly communities, infrastructure for alternatively fueled vehicles)
- Water conservation (improved practices and equipment, landscaping)
- Waste reduction (material re-use/recycling, composting, waste diversion/minimization)
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For guidance regarding greenhouse gas analysis for CEQA environmental documents, please refer to the *CAPCOA CEQA & Climate Change* document. CAPCOA has also published *Quantifying Greenhouse Gas Mitigation Measures*, an extensive sector-by-sector compendium of project-specific mitigation measures, including quantification methods to calculate GHG reductions. Both of these documents are available online at www.capcoa.org.

7. Transportation Measures to Reduce Air Quality Impacts. The Heritage Ridge Residential project and the associated environmental analysis should include measures that promote the use of alternate modes of transportation and focus on reducing vehicle miles traveled, vehicle trips, and peak-hour travel. Because the Heritage Ridge Residential project involves a substantial amount of new residential development, the ability of existing transit services to support the increased population should be evaluated. Enhancements to existing services and schedules, and/or additional routes may be necessary for the project area and surrounding community.

We hope you find our comments useful. Please contact me at 961-8890 or cvw@sbcapcd.org if you have questions.

Heritage Ridge Residential NOP of Draft EIR
April 28, 2015
Page 4 of 4

Sincerely,

A handwritten signature in cursive script that reads "Carly Wilburton".

Carly Wilburton
Air Quality Specialist
Technology and Environmental Assessment Division

Attachment: Public Health and High Traffic Roadways

cc: TEA Chron File

Public Health and High Traffic Roadways

California Air Resources Board Recommended Policy:

Sensitive land uses such as residences, schools, day care centers, playgrounds, and medical facilities should not be sited within 500 feet of:

- A freeway
- Urban roads with 100,000 or more vehicles/day
- Rural roads with 50,000 or more vehicles/day

(Ref. "Air Quality and Land Use: A Community Health Perspective." California Air Resources Board, April 2005)

Reason for the Policy:

Many studies show that living in proximity to freeways and other high traffic roadways leads to adverse health effects beyond those associated with regional air pollution. A number of studies that focused on children have found slower lung development and significant increases in the incidence of lung disease, such as asthma, bronchitis, and decreased lung function, in children who live or attend school near heavily travelled roadways. In addition to children, seniors, and people with heart and lung conditions are considered particularly sensitive to effects of air pollution. Residence in high-traffic areas has been shown to increase the risk of mortality within a cohort of male veterans.

Health Studies:

The results of health studies suggests that it is important to avoid exposing children and other sensitive populations to the elevated air pollution levels near freeways and other high traffic roads. While particulate pollution is suspected as contributing the most to the adverse health effects, studies have not yet determined which specific pollutants and sources (cf. diesel particulate, re-entrained roadway dust particulate, NO₂ vehicle exhaust, diesel trucks vs. gasoline cars, &c.) are responsible. Additional studies are underway. While significant adverse health effects were observed in children who lived within 1,500 feet of a freeway (Gauderman, 2007), the studies indicate a substantial benefit to a 500 foot separation (McConnell, 2006).

Key Findings:

- Reduced lung function in children is associated with traffic density within 1,000 feet and the strongest association is within 300 feet of the roadway. (Brunekreef, 1997)
- Children living within 550 feet of heavy traffic have more medical visits than children who live further away from traffic. (English, 1999)
- Increased asthma hospitalizations are associated with living within 650 feet of heavy traffic. (Lin, 2000)
- Asthma symptoms increase with proximity to roadways and the risk is greatest within 300 feet. (Venn, 2001)
- Asthma and bronchitis symptoms in children are associated with proximity to high traffic in a community with good overall regional air quality. (Kim, 2004)
- Children living within 150 – 200 meters (~450 feet – 600 feet) of heavy traffic have higher rates of asthma than children living further away from traffic. (McConnell, 2006)
- Children living within 500 meters (~1,500 feet) of heavy traffic have significantly slower lung development than children living further away from traffic. (Gauderman, 2007)
- Survival of members of the Washington University-EPRI Veterans Cohort is strongly and robustly associated with county-average levels of traffic related air pollution and mortality relationships are stronger in the counties with higher levels of traffic density. (Lipfert et al, 2009)
- The mortality rate of stroke survivors is positively correlated to their proximity to a high-traffic roadway (more than 10,000 vehicles/day). (Wilker et al, 2013)
- When elderly individuals with coronary artery disease are exposed to traffic-related air pollutants there are changes in the expression of gene pathways adversely affecting cardiovascular health (Delfino, 2014)

Applicability to Santa Barbara County:

The studies covered children in a variety of urban environments living in proximity to roadways covering a wide spectrum of traffic volumes. The adverse health effects were measured at traffic volumes as low as 41,000 vehicles per day (English) and between 80,000 and 150,000 vehicles per day (Brunekreef). Highway 101, through Santa Barbara County, experiences traffic volumes within the range where health effects have been observed. Also, some

parts of Highway 101 see over 7000 diesel trucks per day (SBCAG). Furthermore, running parallel to Highway 101 through the southern portion of Santa Barbara County is a rail corridor that contributes significantly to the pollution levels near the highway (cf., rail contributes an additional 10% or 0.07 tons per day to mobile source generated PM10 emissions in Santa Barbara County).

2013 Average Daily Traffic (ADT) Volumes for Highway 101 (Caltrans):

US 101 at Highway 150 = 64,000 ADT (Ahead)

US 101 at Las Positas/Route 225 = 133,000 ADT (Back); 132,000 ADT (Ahead)

US 101 at Storke = 65,000 ADT (Back)

US 101 at Highway 166, Santa Maria = 65,000 ADT (Back)

Conclusion:

In order to protect the public health, especially the health of children, from the adverse effects of air pollutants generated by traffic on Highway 101, land use policies should prohibit the construction of new residences, schools, day care centers, playgrounds, and medical facilities within 500 feet of Highway 101. No other roadways in Santa Barbara County currently have estimated traffic volumes at the magnitude for which the proximity studies have identified adverse health effects.

References:

"2007 Clean Air Plan." Santa Barbara County Air Pollution Control District (August 2007).

"2007 Travel Trends Report for Santa Barbara County." Santa Barbara County Association of Governments (December 2007).

"2013 Traffic Volumes on California State Highway System." Caltrans. http://traffic-counts.dot.ca.gov/docs/2013_aadt_volumes.pdf

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Delfino RJ "Epidemiologic Evidence for Asthma and Exposure to Air Toxics: Linkages Between Occupational, Indoor, and Community Air Pollution Research." *Environmental Health Perspectives*. (2002) 110 (supplement 4): 573-589.

Delfino, Ralph J. "Peripheral Blood Gene Expression in Subjects with Coronary Artery Disease and Exposure to Particulate Air Pollutant Components and Size Fractions." ARB Research Seminar. 17 April 2014.

<http://www.arb.ca.gov/research/seminars/delfino2/delfino.htm>

English P., Neutra R., Scalf R. Sullivan M. Waller L. Zhu L. "Examining Associations between Childhood Asthma and Traffic Flow Using a Geographic Information System." (1999) *Environmental Health Perspectives* 107(9): 761-767.

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Peters, John M., M.D., Sc.D. "Epidemiologic Investigation to Identify Chronic Effects of Ambient Air Pollutants in Southern California (USC Children's Health Study)." California Air Resources Board (May 2004).

Roseville Rail Yard Study. California Air Resources Board (October 2004).

Venn. et al. "Living near a main road and the risk of wheezing illness in children." *American Journal of Respiratory and Critical Care Medicine*. 2001; Vol.164, pp. 2177-2180.

Wilker, E. et al. "Residential Proximity to High-Traffic Roadways and Poststroke Mortality." *Journal of Stroke and Cerebrovascular Diseases*. November 2013; Vol. 22, pp e366-e372.

Zhu, Y et al. "Study of Ultra-Fine Particles Near A Major Highway With Heavy-Duty Diesel Traffic." *Atmospheric Environment*. 2002; 36:4323-4335.

Stephanie Diaz

From: Peder H Lenvik <plenvik@gmail.com>
Sent: Monday, April 13, 2015 5:42 PM
To: Stephanie Diaz
Subject: RE: Heritage Ranch

Stephanie,
Thank you for the response.

"Sufficient water allocation to serve the Heritage Ridge Project was secured many years ago by the property owner and, as such, GWD considers this site to be an existing water customer similar to your property."

Several years ago we were not quite in the drought condition we are in today. Calling them a customer similar to my property is wholly inaccurate. My property is not able to add 360 units and a park. This is 360 new residences requiring water. The State has mandated that everyone cut back on water usage and this project would be a huge addition to water usage.

It will be irresponsible for the City to allow this project to be approved at this time.

Peder Lenvik

-----Original Message-----

From: Stephanie Diaz [<mailto:sdiaz@cityofgoleta.org>]
Sent: Monday, April 13, 2015 4:30 PM
To: Peder Lenvik
Subject: RE: Heritage Ranch

Dear Mr. Lenvick:

Thank you for interest in Goleta and your email comment regarding water relating to the propped Heritage Ridge project. I have attached information regarding water supplies and proposed development.

Stephanie Diaz
Contract Planner

-----Original Message-----

From: Peder Lenvik [<mailto:plenvik@gmail.com>]
Sent: Wednesday, April 08, 2015 10:20 AM
To: Stephanie Diaz
Subject: Heritage Ranch

How can this even be considered in light of our current water supply concerns?

Peder

Stephanie Diaz

From: Stephanie Diaz
Sent: Monday, April 13, 2015 4:18 PM
To: 'Margaret Kuni'
Subject: RE: Heritage Ridge Residential Project & Development

Dear Ms. Kuni:

Thank you for your interest in Goleta and your email comments on the proposed development. Your comments will be considered in the project's review process.

Stephanie Diaz,
Contract Planner

From: Margaret Kuni [<mailto:morningstar12357@yahoo.com>]
Sent: Thursday, April 09, 2015 3:57 PM
To: Stephanie Diaz
Subject: Heritage Ridge Residential Project & Development

Dear Ms. Diaz,

This is a letter to be shared with all involved in planning any development in Goleta.

Our community has a history of drought and no viable source of affordable water during those times. Yet since Goleta became a city, it has chosen to ignore that history and we are now facing much worse conditions.

These newest housing developments do NOT benefit the community as the costs are not affordable to the citizens who live and work here.

Since the City appears to be intent on building more please consider the following parameters as possible guidelines in these development projects to help the community as a whole.

Heritage Ridge Residential Project (and any others not finished yet, but especially those that have affordable units):

1) A Point System that favors those who can prove they already reside in Goleta AND work in Goleta.

X Points for those born in Goleta or Santa Barbara (evidence is copy of birth certificate)

X Points for those who graduated from high school here (school transcripts which also show length of residence)

X Points for length of continuous residence in Santa Barbara County (i.e., 1 point per year, utility or DMV records)

X Points for those who work in Goleta now (ranked by distance from workplace to new residence in Goleta so that those who work closer to the new residence get more points, meaning less traffic) (W-2 or paystubs)

X Points for those who live outside Goleta for certain professions: law enforcement, fire & emergency personnel, public school teachers, medical personnel - nurses, doctors,

hospital & lab workers, city/county workers, etc. - those in crucial positions for South Santa Barbara County's health, safety and welfare. (Employee ID cards/records)

X Points for honorably discharged Veterans (all ages) (Form DD-214)

X Points for # of vehicles owned (less vehicles = higher points)

2) A strict policy on number of residents per Rental Units for all new developments especially those newer developments that will be managed by onsite managers. Simply limiting the parking is NOT enough as the excess vehicles spill over onto the nearby streets. In the past 10 years the on-street parking for the existing residences in the City of Goleta has increased in every neighborhood, most of which have garages and driveways that fit 2 cars. As the housing itself becomes more crowded, there are more problems - graffiti, vandalism, noise, thefts, etc.

I am sure there are other measures that can be implemented as well but these would be the optimal way to serve the long-term citizens of Goleta by not adding to the number of people using water resources we do not have. It would also reduce traffic on the City streets and strengthen the community by having our emergency personnel at hand for those very real emergencies we DO get (fires, earthquakes, bad storms, mass shootings).

Of course the ideal solution is to NOT approve any more development that would result in extra water use and to put temporary "stays" on those who have been approved but not yet built until we DO have the resources in place.

Sincerely,
Margaret Kuni

Resident since 1968 and renter who lives and works in Goleta

Stephanie Diaz

From: Robert Miller <rjmiller1@gmail.com>
Sent: Friday, April 10, 2015 4:55 PM
To: Stephanie Diaz
Subject: Heritage Ridge

Dea Ms. Diaz,

As a Goleta resident, I would like to express my opinion that considering significant new development projects like Heritage Ridge is not a positive path for Goleta. I understand that the urge is always towards growth. However, growth will significantly diminish the quality and expense of life in our city. We do not want to exacerbate water shortages to have more housing. We don't want the wider roads that more traffic will bring. If you resist these developments Goleta will continue to be a high quality place to live. We value quality over quantity.

thank you,

Bob Miller

9 Mendocino Dr.

NOP
Done

Stephanie Diaz

From: Johnson, Martin <Martin.Johnson@sbcfire.com>
Sent: Wednesday, April 08, 2015 3:06 PM
To: Stephanie Diaz
Subject: FW: RAR - City of Goleta Heritage Ridge Residential Project

Hi Stephanie,

Please see e-mail chain below. Would it be possible to obtain a current conceptual site plan layout of all the proposed buildings and road/driveway plans? This will better help us respond to the NOP request for the DEIR on the Heritage Ridge Residential Project. Mike Young or Shawn Steiner can pick it up at City Hall when they stop by.

Thanks!

Martin Johnson
Santa Barbara County Fire

From: Hentrich, Katie
Sent: Tuesday, April 07, 2015 4:06 PM
To: Johnson, Martin
Subject: RE: RAR - City of Goleta Heritage Ridge Residential Project

Hi Martin,

I would contact the project planner, Stephanie Diaz (sdiaz@cityofgoleta.org) (805-961-7549), for any additional documents you may need to review this project. The City's website doesn't have the proposed conceptual site plan posted, and I didn't receive any other materials along with the NOP. Let me know if you have any other questions.

Katie

From: Johnson, Martin
Sent: Tuesday, April 07, 2015 3:00 PM
To: Hentrich, Katie
Subject: RE: RAR - City of Goleta Heritage Ridge Residential Project

Hi Katie,

Any way for fire to get a copy of the proposed conceptual site plan for this project?

Thanks!

Martin

From: Hentrich, Katie
Sent: Tuesday, April 07, 2015 10:15 AM
To: Martel, Rudy; Johnson, Martin; Blackmar, Merrie; Dobberteen, Matt; Drude, Kevin; Fayram, Tom; Fisher, Cathy; Frye, Jon; Garciacelay, Claude; Klein-Rothschild, Susan; Luehrs, Mark; McCurdy, Alice; McGolpin, Scott; Naftaly, Matt; Langlands, Paddy; Pearson, Eric; Peterson, Eric; Robertson, William; Schleich, Mark; Sneddon, Chris; Spencer, Maureen; Stewart, Bret; Lockhart, Dinah; Trupe, Debbie; Stark, Stephanie

Cc: Van Wingerden, Cam; Lackie, David; Schneider, Matthew; Maus-Nisich, Terri; Russell, Glenn; Bahl, Renee; Black, Dianne

Subject: RAR - City of Goleta Heritage Ridge Residential Project

Good morning,

The City of Goleta has issued a Notice of Preparation for a Draft Environmental Impact Report for the Heritage Ridge Residential Project (attached) and will be conducting a scoping meeting on Wednesday, April 29th.

Project Title: Heritage Ridge Residential Project

Project Description: The proposed project involves the development of two housing concepts and a neighborhood park. One housing component would be a seniors' (62 years and older) rental apartment development totaling 132 units in two buildings. The second component would be 228 units of rental workforce apartments (housing that is intended to be occupied by households whose head is in the workforce) in six buildings. All 360 units will be rental apartment units. A two-acre neighborhood park would be a feature of the project as required by the City's General Plan. The project application also includes a Vesting Tentative Map to consolidate 13 existing parcels into three parcels and a modification of zoning regulations to provide 152 spaces for the senior apartments rather than the required 367 spaces. A General Plan Amendment has been requested to remove a designation of Environmentally Sensitive Habitat Area (ESHA) on General Plan Open Space and Conservation Element Maps.

How to Respond: The Long Range Planning Division will compile departmental comments into a single County response to be issued electronically through the CEO's office. All comment letters will be combined into a single County comment letter by the RAR coordinator. All letters should be addressed to Stephanie Diaz, Contract Planner, City of Goleta, 130 Cremona Drive, Suite B, Goleta, CA 93117. Please e-mail all comment letters (in a PDF or Word format) directly to me by **Thursday, April 30th** (khentrich@countyofsb.org).

Thank you,

Katie Hentrich
Associate Planner
Long Range Planning Division
County of Santa Barbara
123 E. Anapamu Street
Santa Barbara, CA 93101
805.884.6836

Stephanie Diaz

From: Shithi Kamal <skburi@gmail.com>
Sent: Tuesday, May 05, 2015 3:35 PM
To: Stephanie Diaz
Subject: Goleta City water use

Hello:

I am a concerned resident like many others in Goleta who are simply in a state of disbelief at the amount of growth that is happening at a time when we are all facing drastic cut backs in our water use.

Please stop building and let us conserve our existing water supply.
Feel free to share my message with the city council especially the pro-growth members.

Sincerely,

Shithi Kamal-Heikman
247 Saratoga Ct
Goleta, CA 93117

Appendix B

*Air Quality/Greenhouse Gas Emissions Studies & Modeling, and
Energy Calculations*



Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Annual

Heritage Ridge Residential Project - AQ
Santa Barbara County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	543.00	Space	4.47	217,200.00	0
City Park	2.00	Acre	2.00	87,120.00	0
Apartments Low Rise	125.00	Dwelling Unit	5.64	125,000.00	316
Apartments Mid Rise	207.00	Dwelling Unit	3.94	207,000.00	523

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	37
Climate Zone	8			Operational Year	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - Low-rise = 2-story Buildings 1, 4, 5, and 6; Mid-rise = 3-story Buildings 2, 3, 7, 8, 9, and 10; Pop per PD (total 839); Total acreage 16.05

Construction Phase - Schedule per applicant; arch coating halfway through building construction

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Trenching equip per previous CalEEMod run (2014)

Trips and VMT -

Grading - Export modeled separately

Architectural Coating -

Vehicle Trips - Trip rates per Associated Transportation Engineers (2021 Trip Gen); trip lengths per total project VMT (based solely on dwelling units)

Construction Off-road Equipment Mitigation - SBCAPCD dust control requirement = water 2x daily

Mobile Land Use Mitigation -

Energy Mitigation - 2019 Energy Code requires 100% on-site solar

Water Mitigation - 20% indoor water red per Part 11 Title 24; Water-efficient irrigation per CalGreen

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	10
tblConstructionPhase	NumDays	10.00	155.00
tblConstructionPhase	NumDays	30.00	103.00
tblConstructionPhase	NumDays	20.00	52.00
tblConstructionPhase	NumDays	300.00	654.00
tblConstructionPhase	NumDays	20.00	341.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Annual

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblLandUse	LotAcreage	4.89	4.47
tblLandUse	LotAcreage	7.81	5.64
tblLandUse	LotAcreage	5.45	3.94
tblLandUse	Population	340.00	316.00
tblLandUse	Population	563.00	523.00
tblVehicleTrips	CC_TL	5.50	0.00
tblVehicleTrips	CNW_TL	6.40	0.00
tblVehicleTrips	CW_TL	6.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	4.90	6.03
tblVehicleTrips	HO_TL	4.90	6.16
tblVehicleTrips	HS_TL	4.50	6.03
tblVehicleTrips	HS_TL	4.50	6.16
tblVehicleTrips	HW_TL	8.30	6.03
tblVehicleTrips	HW_TL	8.30	6.16
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	WD_TR	6.59	6.34
tblVehicleTrips	WD_TR	6.65	6.34
tblVehicleTrips	WD_TR	1.89	50.00

2.0 Emissions Summary

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Annual

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					
2021	0.2069	2.1284	1.1309	2.0500e-003	0.9543	0.1074	1.0617	0.5229	0.0988	0.6217	0.0000	180.1426	180.1426	0.0569	0.0000	181.5655
2022	0.5478	5.1508	4.7528	0.0101	1.0957	0.2169	1.3126	0.4867	0.2007	0.6874	0.0000	903.6761	903.6761	0.2109	0.0000	908.9486
2023	0.9779	3.5118	4.1379	0.0105	0.4602	0.1178	0.5780	0.1241	0.1111	0.2351	0.0000	957.6839	957.6839	0.1172	0.0000	960.6139
2024	1.1518	2.3180	2.8831	7.3700e-003	0.3372	0.0735	0.4107	0.0908	0.0695	0.1603	0.0000	670.9655	670.9655	0.0797	0.0000	672.9573
Maximum	1.1518	5.1508	4.7528	0.0105	1.0957	0.2169	1.3126	0.5229	0.2007	0.6874	0.0000	957.6839	957.6839	0.2109	0.0000	960.6139

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Annual

2.1 Overall Construction

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					
2021	0.2069	2.1284	1.1309	2.0500e-003	0.4327	0.1074	0.5400	0.2362	0.0988	0.3349	0.0000	180.1424	180.1424	0.0569	0.0000	181.5653
2022	0.5478	5.1508	4.7528	0.0101	0.6016	0.2169	0.8186	0.2483	0.2007	0.4490	0.0000	903.6753	903.6753	0.2109	0.0000	908.9479
2023	0.9779	3.5118	4.1379	0.0105	0.4602	0.1178	0.5780	0.1241	0.1111	0.2351	0.0000	957.6834	957.6834	0.1172	0.0000	960.6135
2024	1.1518	2.3180	2.8831	7.3700e-003	0.3372	0.0735	0.4107	0.0908	0.0695	0.1603	0.0000	670.9652	670.9652	0.0797	0.0000	672.9569
Maximum	1.1518	5.1508	4.7528	0.0105	0.6016	0.2169	0.8186	0.2483	0.2007	0.4490	0.0000	957.6834	957.6834	0.2109	0.0000	960.6135

	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
Percent Reduction	0.00	0.00	0.00	0.00	35.67	0.00	30.20	42.89	0.00	30.81	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2021	11-30-2021	1.7349	1.7349
2	12-1-2021	2-28-2022	2.5867	2.5867
3	3-1-2022	5-31-2022	1.4150	1.4150
4	6-1-2022	8-31-2022	0.8345	0.8345
5	9-1-2022	11-30-2022	1.0737	1.0737
6	12-1-2022	2-28-2023	0.9901	0.9901
7	3-1-2023	5-31-2023	0.9672	0.9672
8	6-1-2023	8-31-2023	1.0957	1.0957

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9	9-1-2023	11-30-2023	1.3449	1.3449
10	12-1-2023	2-29-2024	1.3101	1.3101
11	3-1-2024	5-31-2024	1.2991	1.2991
12	6-1-2024	8-31-2024	1.2963	1.2963
		Highest	2.5867	2.5867

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	1.5234	0.0284	2.4691	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8900e-003	0.0000	4.1337
Energy	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	663.4432	663.4432	0.0227	7.7400e-003	666.3165
Mobile	0.5729	2.1321	6.0775	0.0179	1.7723	0.0152	1.7875	0.4758	0.0142	0.4900	0.0000	1,649.1328	1,649.1328	0.0768	0.0000	1,651.0523
Waste						0.0000	0.0000		0.0000	0.0000	31.7497	0.0000	31.7497	1.5744	0.0000	71.1087
Water						0.0000	0.0000		0.0000	0.0000	7.6531	55.1585	62.8116	0.0286	0.0171	68.6271
Total	2.1177	2.3431	8.6243	0.0192	1.7723	0.0436	1.8159	0.4758	0.0426	0.5184	39.4028	2,371.7709	2,411.1737	1.7064	0.0249	2,461.2383

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5234	0.0284	2.4691	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8900e-003	0.0000	4.1337
Energy	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997
Mobile	0.5507	1.9875	5.5406	0.0158	1.5459	0.0136	1.5595	0.4150	0.0127	0.4277	0.0000	1,453.2518	1,453.2518	0.0695	0.0000	1,454.9884
Waste						0.0000	0.0000		0.0000	0.0000	31.7497	0.0000	31.7497	1.5744	0.0000	71.1087
Water						0.0000	0.0000		0.0000	0.0000	6.1225	47.6998	53.8223	0.0230	0.0137	58.4875
Total	2.0954	2.1985	8.0873	0.0170	1.5459	0.0420	1.5879	0.4150	0.0411	0.4561	37.8722	1,716.3319	1,754.2041	1.6748	0.0176	1,801.3180

	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
Percent Reduction	1.05	6.17	6.23	11.06	12.77	3.78	12.55	12.77	3.64	12.02	3.88	27.64	27.25	1.85	29.22	26.81

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2021	2/28/2022	6	155	
2	Grading	Grading	1/1/2022	4/30/2022	6	103	
3	Site Utilities	Trenching	4/1/2022	6/30/2022	6	78	
4	Paving	Paving	6/1/2022	7/30/2022	6	52	
5	Building Construction	Building Construction	8/1/2022	8/31/2024	6	654	
6	Architectural Coating	Architectural Coating	8/1/2023	8/31/2024	6	341	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 257.5

Acres of Paving: 4.47

Residential Indoor: 672,300; Residential Outdoor: 224,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 13,032 (Architectural Coating – sqft)

OffRoad Equipment

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Excavators	3	8.00	158	0.38
Site Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Trenchers	1	4.00	78	0.50
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Utilities	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	367.00	85.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

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					0.9485	0.0000	0.9485	0.5214	0.0000	0.5214	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2041	2.1261	1.1106	2.0000e-003		0.1073	0.1073		0.0988	0.0988	0.0000	175.5375	175.5375	0.0568	0.0000	176.9568
Total	0.2041	2.1261	1.1106	2.0000e-003	0.9485	0.1073	1.0558	0.5214	0.0988	0.6201	0.0000	175.5375	175.5375	0.0568	0.0000	176.9568

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3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8100e-003	2.2800e-003	0.0203	5.0000e-005	5.8400e-003	4.0000e-005	5.8700e-003	1.5500e-003	3.0000e-005	1.5800e-003	0.0000	4.6051	4.6051	1.4000e-004	0.0000	4.6087
Total	2.8100e-003	2.2800e-003	0.0203	5.0000e-005	5.8400e-003	4.0000e-005	5.8700e-003	1.5500e-003	3.0000e-005	1.5800e-003	0.0000	4.6051	4.6051	1.4000e-004	0.0000	4.6087

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					0.4268	0.0000	0.4268	0.2346	0.0000	0.2346	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2041	2.1261	1.1106	2.0000e-003		0.1073	0.1073		0.0988	0.0988	0.0000	175.5373	175.5373	0.0568	0.0000	176.9566
Total	0.2041	2.1261	1.1106	2.0000e-003	0.4268	0.1073	0.5342	0.2346	0.0988	0.3334	0.0000	175.5373	175.5373	0.0568	0.0000	176.9566

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3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8100e-003	2.2800e-003	0.0203	5.0000e-005	5.8400e-003	4.0000e-005	5.8700e-003	1.5500e-003	3.0000e-005	1.5800e-003	0.0000	4.6051	4.6051	1.4000e-004	0.0000	4.6087
Total	2.8100e-003	2.2800e-003	0.0203	5.0000e-005	5.8400e-003	4.0000e-005	5.8700e-003	1.5500e-003	3.0000e-005	1.5800e-003	0.0000	4.6051	4.6051	1.4000e-004	0.0000	4.6087

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4517	0.0000	0.4517	0.2483	0.0000	0.2483	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0793	0.8271	0.4924	9.5000e-004		0.0403	0.0403		0.0371	0.0371	0.0000	83.5985	83.5985	0.0270	0.0000	84.2744
Total	0.0793	0.8271	0.4924	9.5000e-004	0.4517	0.0403	0.4920	0.2483	0.0371	0.2854	0.0000	83.5985	83.5985	0.0270	0.0000	84.2744

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3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2500e-003	9.7000e-004	8.7900e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.1147	2.1147	6.0000e-005	0.0000	2.1162
Total	1.2500e-003	9.7000e-004	8.7900e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.1147	2.1147	6.0000e-005	0.0000	2.1162

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					0.2033	0.0000	0.2033	0.1117	0.0000	0.1117	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0793	0.8271	0.4924	9.5000e-004		0.0403	0.0403		0.0371	0.0371	0.0000	83.5984	83.5984	0.0270	0.0000	84.2743
Total	0.0793	0.8271	0.4924	9.5000e-004	0.2033	0.0403	0.2436	0.1117	0.0371	0.1488	0.0000	83.5984	83.5984	0.0270	0.0000	84.2743

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3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2500e-003	9.7000e-004	8.7900e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.1147	2.1147	6.0000e-005	0.0000	2.1162
Total	1.2500e-003	9.7000e-004	8.7900e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.1147	2.1147	6.0000e-005	0.0000	2.1162

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4467	0.0000	0.4467	0.1852	0.0000	0.1852	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1867	2.0004	1.4956	3.2000e-003		0.0842	0.0842		0.0775	0.0775	0.0000	280.8532	280.8532	0.0908	0.0000	283.1240
Total	0.1867	2.0004	1.4956	3.2000e-003	0.4467	0.0842	0.5309	0.1852	0.0775	0.2627	0.0000	280.8532	280.8532	0.0908	0.0000	283.1240

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3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8600e-003	2.2200e-003	0.0201	5.0000e-005	6.3600e-003	4.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	4.8403	4.8403	1.4000e-004	0.0000	4.8438
Total	2.8600e-003	2.2200e-003	0.0201	5.0000e-005	6.3600e-003	4.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	4.8403	4.8403	1.4000e-004	0.0000	4.8438

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					0.2010	0.0000	0.2010	0.0834	0.0000	0.0834	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1867	2.0004	1.4956	3.2000e-003		0.0842	0.0842		0.0775	0.0775	0.0000	280.8529	280.8529	0.0908	0.0000	283.1237
Total	0.1867	2.0004	1.4956	3.2000e-003	0.2010	0.0842	0.2852	0.0834	0.0775	0.1608	0.0000	280.8529	280.8529	0.0908	0.0000	283.1237

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3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8600e-003	2.2200e-003	0.0201	5.0000e-005	6.3600e-003	4.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	4.8403	4.8403	1.4000e-004	0.0000	4.8438
Total	2.8600e-003	2.2200e-003	0.0201	5.0000e-005	6.3600e-003	4.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	4.8403	4.8403	1.4000e-004	0.0000	4.8438

3.4 Site Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0436	0.4045	0.6061	9.1000e-004		0.0218	0.0218		0.0200	0.0200	0.0000	80.1715	80.1715	0.0259	0.0000	80.8197
Total	0.0436	0.4045	0.6061	9.1000e-004		0.0218	0.0218		0.0200	0.0200	0.0000	80.1715	80.1715	0.0259	0.0000	80.8197

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3.4 Site Utilities - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6200e-003	1.2600e-003	0.0114	3.0000e-005	3.6100e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7491	2.7491	8.0000e-005	0.0000	2.7511
Total	1.6200e-003	1.2600e-003	0.0114	3.0000e-005	3.6100e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7491	2.7491	8.0000e-005	0.0000	2.7511

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	0.0436	0.4045	0.6061	9.1000e-004		0.0218	0.0218		0.0200	0.0200	0.0000	80.1714	80.1714	0.0259	0.0000	80.8196
Total	0.0436	0.4045	0.6061	9.1000e-004		0.0218	0.0218		0.0200	0.0200	0.0000	80.1714	80.1714	0.0259	0.0000	80.8196

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3.4 Site Utilities - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6200e-003	1.2600e-003	0.0114	3.0000e-005	3.6100e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7491	2.7491	8.0000e-005	0.0000	2.7511
Total	1.6200e-003	1.2600e-003	0.0114	3.0000e-005	3.6100e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7491	2.7491	8.0000e-005	0.0000	2.7511

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0287	0.2893	0.3791	5.9000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	52.0717	52.0717	0.0168	0.0000	52.4927
Paving	5.8600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0345	0.2893	0.3791	5.9000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	52.0717	52.0717	0.0168	0.0000	52.4927

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3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0800e-003	8.4000e-004	7.6200e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4200e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8327	1.8327	5.0000e-005	0.0000	1.8340
Total	1.0800e-003	8.4000e-004	7.6200e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4200e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8327	1.8327	5.0000e-005	0.0000	1.8340

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	0.0287	0.2893	0.3791	5.9000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	52.0716	52.0716	0.0168	0.0000	52.4926
Paving	5.8600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0345	0.2893	0.3791	5.9000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	52.0716	52.0716	0.0168	0.0000	52.4926

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3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0800e-003	8.4000e-004	7.6200e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4200e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8327	1.8327	5.0000e-005	0.0000	1.8340
Total	1.0800e-003	8.4000e-004	7.6200e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4200e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8327	1.8327	5.0000e-005	0.0000	1.8340

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1126	1.0306	1.0800	1.7800e-003		0.0534	0.0534		0.0502	0.0502	0.0000	152.9387	152.9387	0.0366	0.0000	153.8547
Total	0.1126	1.0306	1.0800	1.7800e-003		0.0534	0.0534		0.0502	0.0502	0.0000	152.9387	152.9387	0.0366	0.0000	153.8547

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3.6 Building Construction - 2022

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	0.0172	0.5413	0.1785	1.3000e-003	0.0326	1.4900e-003	0.0341	9.4100e-003	1.4200e-003	0.0108	0.0000	128.6799	128.6799	0.0100	0.0000	128.9300
Worker	0.0672	0.0523	0.4731	1.2600e-003	0.1496	9.2000e-004	0.1505	0.0398	8.4000e-004	0.0406	0.0000	113.8260	113.8260	3.2800e-003	0.0000	113.9081
Total	0.0843	0.5936	0.6516	2.5600e-003	0.1822	2.4100e-003	0.1846	0.0492	2.2600e-003	0.0514	0.0000	242.5059	242.5059	0.0133	0.0000	242.8381

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	0.1126	1.0306	1.0800	1.7800e-003		0.0534	0.0534		0.0502	0.0502	0.0000	152.9385	152.9385	0.0366	0.0000	153.8545
Total	0.1126	1.0306	1.0800	1.7800e-003		0.0534	0.0534		0.0502	0.0502	0.0000	152.9385	152.9385	0.0366	0.0000	153.8545

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3.6 Building Construction - 2022

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	0.0172	0.5413	0.1785	1.3000e-003	0.0326	1.4900e-003	0.0341	9.4100e-003	1.4200e-003	0.0108	0.0000	128.6799	128.6799	0.0100	0.0000	128.9300
Worker	0.0672	0.0523	0.4731	1.2600e-003	0.1496	9.2000e-004	0.1505	0.0398	8.4000e-004	0.0406	0.0000	113.8260	113.8260	3.2800e-003	0.0000	113.9081
Total	0.0843	0.5936	0.6516	2.5600e-003	0.1822	2.4100e-003	0.1846	0.0492	2.2600e-003	0.0514	0.0000	242.5059	242.5059	0.0133	0.0000	242.8381

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2454	2.2440	2.5341	4.2000e-003		0.1092	0.1092		0.1027	0.1027	0.0000	361.6154	361.6154	0.0860	0.0000	363.7660
Total	0.2454	2.2440	2.5341	4.2000e-003		0.1092	0.1092		0.1027	0.1027	0.0000	361.6154	361.6154	0.0860	0.0000	363.7660

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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	0.0316	1.0625	0.3800	3.0000e-003	0.0771	1.6900e-003	0.0788	0.0222	1.6100e-003	0.0239	0.0000	298.7252	298.7252	0.0227	0.0000	299.2924
Worker	0.1483	0.1107	1.0200	2.8700e-003	0.3536	2.1100e-003	0.3557	0.0940	1.9400e-003	0.0959	0.0000	258.9895	258.9895	6.9100e-003	0.0000	259.1623
Total	0.1798	1.1732	1.4000	5.8700e-003	0.4307	3.8000e-003	0.4345	0.1162	3.5500e-003	0.1198	0.0000	557.7147	557.7147	0.0296	0.0000	558.4547

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	0.2454	2.2440	2.5341	4.2000e-003		0.1092	0.1092		0.1027	0.1027	0.0000	361.6150	361.6150	0.0860	0.0000	363.7655
Total	0.2454	2.2440	2.5341	4.2000e-003		0.1092	0.1092		0.1027	0.1027	0.0000	361.6150	361.6150	0.0860	0.0000	363.7655

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3.6 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0316	1.0625	0.3800	3.0000e-003	0.0771	1.6900e-003	0.0788	0.0222	1.6100e-003	0.0239	0.0000	298.7252	298.7252	0.0227	0.0000	299.2924
Worker	0.1483	0.1107	1.0200	2.8700e-003	0.3536	2.1100e-003	0.3557	0.0940	1.9400e-003	0.0959	0.0000	258.9895	258.9895	6.9100e-003	0.0000	259.1623
Total	0.1798	1.1732	1.4000	5.8700e-003	0.4307	3.8000e-003	0.4345	0.1162	3.5500e-003	0.1198	0.0000	557.7147	557.7147	0.0296	0.0000	558.4547

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1545	1.4116	1.6975	2.8300e-003		0.0644	0.0644		0.0606	0.0606	0.0000	243.4416	243.4416	0.0576	0.0000	244.8807
Total	0.1545	1.4116	1.6975	2.8300e-003		0.0644	0.0644		0.0606	0.0606	0.0000	243.4416	243.4416	0.0576	0.0000	244.8807

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3.6 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0201	0.6982	0.2406	2.0100e-003	0.0519	1.0500e-003	0.0529	0.0150	1.0000e-003	0.0160	0.0000	199.8170	199.8170	0.0156	0.0000	200.2074
Worker	0.0935	0.0669	0.6297	1.8500e-003	0.2380	1.3800e-003	0.2394	0.0633	1.2700e-003	0.0645	0.0000	167.5670	167.5670	4.1500e-003	0.0000	167.6708
Total	0.1136	0.7651	0.8703	3.8600e-003	0.2899	2.4300e-003	0.2923	0.0782	2.2700e-003	0.0805	0.0000	367.3841	367.3841	0.0198	0.0000	367.8782

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	0.1545	1.4116	1.6975	2.8300e-003		0.0644	0.0644		0.0606	0.0606	0.0000	243.4413	243.4413	0.0576	0.0000	244.8804
Total	0.1545	1.4116	1.6975	2.8300e-003		0.0644	0.0644		0.0606	0.0606	0.0000	243.4413	243.4413	0.0576	0.0000	244.8804

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3.6 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0201	0.6982	0.2406	2.0100e-003	0.0519	1.0500e-003	0.0529	0.0150	1.0000e-003	0.0160	0.0000	199.8170	199.8170	0.0156	0.0000	200.2074
Worker	0.0935	0.0669	0.6297	1.8500e-003	0.2380	1.3800e-003	0.2394	0.0633	1.2700e-003	0.0645	0.0000	167.5670	167.5670	4.1500e-003	0.0000	167.6708
Total	0.1136	0.7651	0.8703	3.8600e-003	0.2899	2.4300e-003	0.2923	0.0782	2.2700e-003	0.0805	0.0000	367.3841	367.3841	0.0198	0.0000	367.8782

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5278					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.0854	0.1186	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.7238	16.7238	1.0000e-003	0.0000	16.7488
Total	0.5404	0.0854	0.1186	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.7238	16.7238	1.0000e-003	0.0000	16.7488

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3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0124	9.2400e-003	0.0852	2.4000e-004	0.0295	1.8000e-004	0.0297	7.8500e-003	1.6000e-004	8.0100e-003	0.0000	21.6300	21.6300	5.8000e-004	0.0000	21.6444
Total	0.0124	9.2400e-003	0.0852	2.4000e-004	0.0295	1.8000e-004	0.0297	7.8500e-003	1.6000e-004	8.0100e-003	0.0000	21.6300	21.6300	5.8000e-004	0.0000	21.6444

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	0.5278					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.0854	0.1186	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.7238	16.7238	1.0000e-003	0.0000	16.7488
Total	0.5404	0.0854	0.1186	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.7238	16.7238	1.0000e-003	0.0000	16.7488

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3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0124	9.2400e-003	0.0852	2.4000e-004	0.0295	1.8000e-004	0.0297	7.8500e-003	1.6000e-004	8.0100e-003	0.0000	21.6300	21.6300	5.8000e-004	0.0000	21.6444
Total	0.0124	9.2400e-003	0.0852	2.4000e-004	0.0295	1.8000e-004	0.0297	7.8500e-003	1.6000e-004	8.0100e-003	0.0000	21.6300	21.6300	5.8000e-004	0.0000	21.6444

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0190	0.1280	0.1901	3.1000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	26.8092	26.8092	1.5100e-003	0.0000	26.8469
Total	0.8651	0.1280	0.1901	3.1000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	26.8092	26.8092	1.5100e-003	0.0000	26.8469

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3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0186	0.0133	0.1252	3.7000e-004	0.0473	2.7000e-004	0.0476	0.0126	2.5000e-004	0.0128	0.0000	33.3308	33.3308	8.3000e-004	0.0000	33.3514
Total	0.0186	0.0133	0.1252	3.7000e-004	0.0473	2.7000e-004	0.0476	0.0126	2.5000e-004	0.0128	0.0000	33.3308	33.3308	8.3000e-004	0.0000	33.3514

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	0.8461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0190	0.1280	0.1901	3.1000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	26.8091	26.8091	1.5100e-003	0.0000	26.8469
Total	0.8651	0.1280	0.1901	3.1000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	26.8091	26.8091	1.5100e-003	0.0000	26.8469

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3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0186	0.0133	0.1252	3.7000e-004	0.0473	2.7000e-004	0.0476	0.0126	2.5000e-004	0.0128	0.0000	33.3308	33.3308	8.3000e-004	0.0000	33.3514
Total	0.0186	0.0133	0.1252	3.7000e-004	0.0473	2.7000e-004	0.0476	0.0126	2.5000e-004	0.0128	0.0000	33.3308	33.3308	8.3000e-004	0.0000	33.3514

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

- Increase Density
- Increase Transit Accessibility
- Integrate Below Market Rate Housing
- Improve Pedestrian Network
- Provide Traffic Calming Measures
- Limit Parking Supply

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	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	0.5507	1.9875	5.5406	0.0158	1.5459	0.0136	1.5595	0.4150	0.0127	0.4277	0.0000	1,453.2518	1,453.2518	0.0695	0.0000	1,454.9884
Unmitigated	0.5729	2.1321	6.0775	0.0179	1.7723	0.0152	1.7875	0.4758	0.0142	0.4900	0.0000	1,649.1328	1,649.1328	0.0768	0.0000	1,651.0523

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	792.50	895.00	758.75	1,761,031	1,536,144
Apartments Mid Rise	1,312.38	1,322.73	1213.02	2,914,159	2,542,015
City Park	100.00	45.50	33.48	181	158
Parking Lot	0.00	0.00	0.00		
Total	2,204.88	2,263.23	2,005.25	4,675,371	4,078,317

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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	6.03	6.03	6.03	25.60	9.90	64.50	100	0	0
Apartments Mid Rise	6.16	6.16	6.16	25.60	9.90	64.50	100	0	0
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Apartments Mid Rise	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
City Park	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Parking Lot	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	452.0994	452.0994	0.0187	3.8600e-003	453.7168
Natural Gas Mitigated	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997
Natural Gas Unmitigated	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997

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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	1.59495e+006	8.6000e-003	0.0735	0.0313	4.7000e-004		5.9400e-003	5.9400e-003		5.9400e-003	5.9400e-003	0.0000	85.1125	85.1125	1.6300e-003	1.5600e-003	85.6183
Apartments Mid Rise	2.36548e+006	0.0128	0.1090	0.0464	7.0000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	126.2313	126.2313	2.4200e-003	2.3100e-003	126.9814
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0214	0.1825	0.0777	1.1700e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	1.59495e+006	8.6000e-003	0.0735	0.0313	4.7000e-004		5.9400e-003	5.9400e-003		5.9400e-003	5.9400e-003	0.0000	85.1125	85.1125	1.6300e-003	1.5600e-003	85.6183
Apartments Mid Rise	2.36548e+006	0.0128	0.1090	0.0464	7.0000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	126.2313	126.2313	2.4200e-003	2.3100e-003	126.9814
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0214	0.1825	0.0777	1.1700e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	520016	165.6883	6.8400e-003	1.4200e-003	166.2811
Apartments Mid Rise	822887	262.1895	0.0108	2.2400e-003	263.1275
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	76020	24.2216	1.0000e-003	2.1000e-004	24.3083
Total		452.0994	0.0187	3.8700e-003	453.7168

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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	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	1.5234	0.0284	2.4691	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8900e-003	0.0000	4.1337
Unmitigated	1.5234	0.0284	2.4691	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8900e-003	0.0000	4.1337

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	0.1374					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3115					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	0.0746	0.0284	2.4691	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8900e-003	0.0000	4.1337
Total	1.5234	0.0284	2.4691	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8900e-003	0.0000	4.1337

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1374					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3115					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	0.0746	0.0284	2.4691	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8900e-003	0.0000	4.1337
Total	1.5234	0.0284	2.4691	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8900e-003	0.0000	4.1337

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	53.8223	0.0230	0.0137	58.4875
Unmitigated	62.8116	0.0286	0.0171	68.6271

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	8.14425 / 5.13442	22.6484	0.0107	6.4400e-003	24.8344
Apartments Mid Rise	13.4869 / 8.5026	37.5058	0.0178	0.0107	41.1258
City Park	0 / 2.38296	2.6574	1.1000e-004	2.0000e-005	2.6669
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		62.8116	0.0286	0.0171	68.6271

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	6.5154 / 5.13442	19.2639	8.6300e-003	5.1600e-003	21.0168
Apartments Mid Rise	10.7895 / 8.5026	31.9010	0.0143	8.5400e-003	34.8038
City Park	0 / 2.38296	2.6574	1.1000e-004	2.0000e-005	2.6669
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		53.8223	0.0230	0.0137	58.4875

8.0 Waste Detail

8.1 Mitigation Measures Waste

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	31.7497	1.5744	0.0000	71.1087
Unmitigated	31.7497	1.5744	0.0000	71.1087

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	57.5	11.9406	0.5921	0.0000	26.7431
Apartments Mid Rise	95.22	19.7737	0.9805	0.0000	44.2866
City Park	0.17	0.0353	1.7500e-003	0.0000	0.0791
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		31.7497	1.5744	0.0000	71.1087

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	57.5	11.9406	0.5921	0.0000	26.7431
Apartments Mid Rise	95.22	19.7737	0.9805	0.0000	44.2866
City Park	0.17	0.0353	1.7500e-003	0.0000	0.0791
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		31.7497	1.5744	0.0000	71.1087

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

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Equipment Type	Number
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11.0 Vegetation

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	543.00	Space	4.47	217,200.00	0
City Park	2.00	Acre	2.00	87,120.00	0
Apartments Low Rise	125.00	Dwelling Unit	5.64	125,000.00	316
Apartments Mid Rise	207.00	Dwelling Unit	3.94	207,000.00	523

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	37
Climate Zone	8			Operational Year	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - Low-rise = 2-story Buildings 1, 4, 5, and 6; Mid-rise = 3-story Buildings 2, 3, 7, 8, 9, and 10; Pop per PD (total 839); Total acreage 16.05

Construction Phase - Schedule per applicant; arch coating halfway through building construction

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Trenching equip per previous CalEEMod run (2014)

Trips and VMT -

Grading - Export modeled separately

Architectural Coating -

Vehicle Trips - Trip rates per Associated Transportation Engineers (2021 Trip Gen); trip lengths per total project VMT (based solely on dwelling units)

Construction Off-road Equipment Mitigation - SBCAPCD dust control requirement = water 2x daily

Mobile Land Use Mitigation -

Energy Mitigation - 2019 Energy Code requires 100% on-site solar

Water Mitigation - 20% indoor water red per Part 11 Title 24; Water-efficient irrigation per CalGreen

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	10
tblConstructionPhase	NumDays	10.00	155.00
tblConstructionPhase	NumDays	30.00	103.00
tblConstructionPhase	NumDays	20.00	52.00
tblConstructionPhase	NumDays	300.00	654.00
tblConstructionPhase	NumDays	20.00	341.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

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tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblLandUse	LotAcreage	4.89	4.47
tblLandUse	LotAcreage	7.81	5.64
tblLandUse	LotAcreage	5.45	3.94
tblLandUse	Population	340.00	316.00
tblLandUse	Population	563.00	523.00
tblVehicleTrips	CC_TL	5.50	0.00
tblVehicleTrips	CNW_TL	6.40	0.00
tblVehicleTrips	CW_TL	6.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	4.90	6.03
tblVehicleTrips	HO_TL	4.90	6.16
tblVehicleTrips	HS_TL	4.50	6.03
tblVehicleTrips	HS_TL	4.50	6.16
tblVehicleTrips	HW_TL	8.30	6.03
tblVehicleTrips	HW_TL	8.30	6.16
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	WD_TR	6.59	6.34
tblVehicleTrips	WD_TR	6.65	6.34
tblVehicleTrips	WD_TR	1.89	50.00

2.0 Emissions Summary

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

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					
2021	3.9470	40.5415	21.5504	0.0390	18.1799	2.0452	20.2251	9.9608	1.8816	11.8424	0.0000	3,782.2135	3,782.2135	1.1951	0.0000	3,812.0900
2022	6.9109	72.0108	49.4993	0.1021	26.9796	3.2489	30.2285	13.5909	2.9890	16.5799	0.0000	9,894.0444	9,894.0444	3.1421	0.0000	9,972.5961
2023	11.2867	23.2755	28.6139	0.0709	3.2821	0.7979	4.0800	0.8820	0.7548	1.6368	0.0000	7,108.5898	7,108.5898	0.8475	0.0000	7,129.7775
2024	11.0866	22.0040	27.7163	0.0699	3.2821	0.7003	3.9824	0.8820	0.6622	1.5442	0.0000	7,011.2776	7,011.2776	0.8403	0.0000	7,032.2861
Maximum	11.2867	72.0108	49.4993	0.1021	26.9796	3.2489	30.2285	13.5909	2.9890	16.5799	0.0000	9,894.0444	9,894.0444	3.1421	0.0000	9,972.5961

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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	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295
Energy	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153
Mobile	3.3725	12.3617	36.4391	0.1033	10.4961	0.0886	10.5847	2.8125	0.0828	2.8953		10,506.6456	10,506.6456	0.4995		10,519.1324
Total	12.2569	13.6776	64.2990	0.1112	10.4961	0.3214	10.8175	2.8125	0.3156	3.1281	0.0000	11,832.6138	11,832.6138	0.5716	0.0234	11,853.8772

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	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295
Energy	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153
Mobile	3.2431	11.5251	33.3030	0.0910	9.1557	0.0790	9.2347	2.4533	0.0738	2.5271		9,255.3391	9,255.3391	0.4527		9,266.6560
Total	12.1275	12.8410	61.1630	0.0989	9.1557	0.3118	9.4675	2.4533	0.3066	2.7599	0.0000	10,581.3073	10,581.3073	0.5248	0.0234	10,601.4008

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	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
Percent Reduction	1.06	6.12	4.88	11.08	12.77	2.98	12.48	12.77	2.84	11.77	0.00	10.58	10.58	8.19	0.00	10.57

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2021	2/28/2022	6	155	
2	Grading	Grading	1/1/2022	4/30/2022	6	103	
3	Site Utilities	Trenching	4/1/2022	6/30/2022	6	78	
4	Paving	Paving	6/1/2022	7/30/2022	6	52	
5	Building Construction	Building Construction	8/1/2022	8/31/2024	6	654	
6	Architectural Coating	Architectural Coating	8/1/2023	8/31/2024	6	341	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 257.5

Acres of Paving: 4.47

Residential Indoor: 672,300; Residential Outdoor: 224,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 13,032 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Excavators	3	8.00	158	0.38
Site Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Trenchers	1	4.00	78	0.50
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Utilities	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	367.00	85.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

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	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.2 Site Preparation - 2021

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	0.0589	0.0444	0.3961	9.7000e-004	0.1137	7.0000e-004	0.1144	0.0302	6.5000e-004	0.0308		96.5566	96.5566	3.0400e-003		96.6327
Total	0.0589	0.0444	0.3961	9.7000e-004	0.1137	7.0000e-004	0.1144	0.0302	6.5000e-004	0.0308		96.5566	96.5566	3.0400e-003		96.6327

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	8.1298	2.0445	10.1743	4.4688	1.8809	6.3497	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.2 Site Preparation - 2021

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	0.0589	0.0444	0.3961	9.7000e-004	0.1137	7.0000e-004	0.1144	0.0302	6.5000e-004	0.0308		96.5566	96.5566	3.0400e-003		96.6327
Total	0.0589	0.0444	0.3961	9.7000e-004	0.1137	7.0000e-004	0.1144	0.0302	6.5000e-004	0.0308		96.5566	96.5566	3.0400e-003		96.6327

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	18.0663	1.6126	19.6788	9.9307	1.4836	11.4143		3,686.0619	3,686.0619	1.1922		3,715.8655

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.2 Site Preparation - 2022

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	0.0549	0.0397	0.3600	9.4000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308		93.1131	93.1131	2.7100e-003		93.1807
Total	0.0549	0.0397	0.3600	9.4000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308		93.1131	93.1131	2.7100e-003		93.1807

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	8.1298	1.6126	9.7424	4.4688	1.4836	5.9524	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.2 Site Preparation - 2022

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	0.0549	0.0397	0.3600	9.4000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308		93.1131	93.1131	2.7100e-003		93.1807
Total	0.0549	0.0397	0.3600	9.4000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308		93.1131	93.1131	2.7100e-003		93.1807

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006		6,011.4105	6,011.4105	1.9442		6,060.0158

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.3 Grading - 2022

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	0.0610	0.0441	0.4000	1.0400e-003	0.1263	7.6000e-004	0.1271	0.0335	7.0000e-004	0.0342		103.4589	103.4589	3.0100e-003		103.5341
Total	0.0610	0.0441	0.4000	1.0400e-003	0.1263	7.6000e-004	0.1271	0.0335	7.0000e-004	0.0342		103.4589	103.4589	3.0100e-003		103.5341

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					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	3.9030	1.6349	5.5379	1.6184	1.5041	3.1225	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.3 Grading - 2022

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	0.0610	0.0441	0.4000	1.0400e-003	0.1263	7.6000e-004	0.1271	0.0335	7.0000e-004	0.0342		103.4589	103.4589	3.0100e-003		103.5341
Total	0.0610	0.0441	0.4000	1.0400e-003	0.1263	7.6000e-004	0.1271	0.0335	7.0000e-004	0.0342		103.4589	103.4589	3.0100e-003		103.5341

3.4 Site Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1186	10.3720	15.5408	0.0234		0.5577	0.5577		0.5131	0.5131		2,265.9984	2,265.9984	0.7329		2,284.3202
Total	1.1186	10.3720	15.5408	0.0234		0.5577	0.5577		0.5131	0.5131		2,265.9984	2,265.9984	0.7329		2,284.3202

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.4 Site Utilities - 2022

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	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		77.5942	77.5942	2.2500e-003		77.6506
Total	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		77.5942	77.5942	2.2500e-003		77.6506

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	1.1186	10.3720	15.5408	0.0234		0.5577	0.5577		0.5131	0.5131	0.0000	2,265.9984	2,265.9984	0.7329		2,284.3202
Total	1.1186	10.3720	15.5408	0.0234		0.5577	0.5577		0.5131	0.5131	0.0000	2,265.9984	2,265.9984	0.7329		2,284.3202

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.4 Site Utilities - 2022

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	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		77.5942	77.5942	2.2500e-003		77.6506
Total	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		77.5942	77.5942	2.2500e-003		77.6506

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.2252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3280	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

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3.5 Paving - 2022

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	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		77.5942	77.5942	2.2500e-003		77.6506
Total	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		77.5942	77.5942	2.2500e-003		77.6506

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.2252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3280	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

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3.5 Paving - 2022

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	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		77.5942	77.5942	2.2500e-003		77.6506
Total	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		77.5942	77.5942	2.2500e-003		77.6506

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

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3.6 Building Construction - 2022

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	0.2684	8.0796	2.8335	0.0194	0.5033	0.0232	0.5266	0.1448	0.0222	0.1670		2,119.0713	2,119.0713	0.1713		2,123.3535
Worker	1.1194	0.8096	7.3405	0.0191	2.3178	0.0139	2.3317	0.6149	0.0128	0.6277		1,898.4716	1,898.4716	0.0552		1,899.8505
Total	1.3878	8.8892	10.1740	0.0385	2.8211	0.0371	2.8582	0.7597	0.0350	0.7947		4,017.5429	4,017.5429	0.2265		4,023.2041

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.6 Building Construction - 2022

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	0.2684	8.0796	2.8335	0.0194	0.5033	0.0232	0.5266	0.1448	0.0222	0.1670		2,119.0713	2,119.0713	0.1713		2,123.3535
Worker	1.1194	0.8096	7.3405	0.0191	2.3178	0.0139	2.3317	0.6149	0.0128	0.6277		1,898.4716	1,898.4716	0.0552		1,899.8505
Total	1.3878	8.8892	10.1740	0.0385	2.8211	0.0371	2.8582	0.7597	0.0350	0.7947		4,017.5429	4,017.5429	0.2265		4,023.2041

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.6 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.2089	6.7183	2.5381	0.0190	0.5033	0.0111	0.5144	0.1448	0.0106	0.1554		2,080.8878	2,080.8878	0.1640		2,084.9873
Worker	1.0471	0.7251	6.6900	0.0184	2.3178	0.0135	2.3313	0.6149	0.0125	0.6274		1,827.5299	1,827.5299	0.0491		1,828.7569
Total	1.2561	7.4434	9.2281	0.0374	2.8211	0.0246	2.8457	0.7597	0.0231	0.7828		3,908.4177	3,908.4177	0.2131		3,913.7442

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.6 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.2089	6.7183	2.5381	0.0190	0.5033	0.0111	0.5144	0.1448	0.0106	0.1554		2,080.8878	2,080.8878	0.1640		2,084.9873
Worker	1.0471	0.7251	6.6900	0.0184	2.3178	0.0135	2.3313	0.6149	0.0125	0.6274		1,827.5299	1,827.5299	0.0491		1,828.7569
Total	1.2561	7.4434	9.2281	0.0374	2.8211	0.0246	2.8457	0.7597	0.0231	0.7828		3,908.4177	3,908.4177	0.2131		3,913.7442

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

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3.6 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1975	6.5608	2.3883	0.0188	0.5033	0.0103	0.5136	0.1448	9.8000e-003	0.1546		2,067.9621	2,067.9621	0.1677		2,072.1541
Worker	0.9832	0.6511	6.1314	0.0176	2.3178	0.0132	2.3310	0.6149	0.0121	0.6270		1,756.7361	1,756.7361	0.0438		1,757.8299
Total	1.1807	7.2119	8.5197	0.0365	2.8211	0.0234	2.8445	0.7597	0.0219	0.7816		3,824.6982	3,824.6982	0.2114		3,829.9841

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.6 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1975	6.5608	2.3883	0.0188	0.5033	0.0103	0.5136	0.1448	9.8000e-003	0.1546		2,067.9621	2,067.9621	0.1677		2,072.1541
Worker	0.9832	0.6511	6.1314	0.0176	2.3178	0.0132	2.3310	0.6149	0.0121	0.6270		1,756.7361	1,756.7361	0.0438		1,757.8299
Total	1.1807	7.2119	8.5197	0.0365	2.8211	0.0234	2.8445	0.7597	0.0219	0.7816		3,824.6982	3,824.6982	0.2114		3,829.9841

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	8.2496	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.2083	0.1442	1.3307	3.6500e-003	0.4610	2.6900e-003	0.4637	0.1223	2.4800e-003	0.1248		363.5141	363.5141	9.7600e-003		363.7582
Total	0.2083	0.1442	1.3307	3.6500e-003	0.4610	2.6900e-003	0.4637	0.1223	2.4800e-003	0.1248		363.5141	363.5141	9.7600e-003		363.7582

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	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	8.2496	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.2083	0.1442	1.3307	3.6500e-003	0.4610	2.6900e-003	0.4637	0.1223	2.4800e-003	0.1248		363.5141	363.5141	9.7600e-003		363.7582
Total	0.2083	0.1442	1.3307	3.6500e-003	0.4610	2.6900e-003	0.4637	0.1223	2.4800e-003	0.1248		363.5141	363.5141	9.7600e-003		363.7582

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	8.2387	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1956	0.1295	1.2196	3.5100e-003	0.4610	2.6200e-003	0.4637	0.1223	2.4100e-003	0.1247		349.4325	349.4325	8.7000e-003		349.6501
Total	0.1956	0.1295	1.2196	3.5100e-003	0.4610	2.6200e-003	0.4637	0.1223	2.4100e-003	0.1247		349.4325	349.4325	8.7000e-003		349.6501

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	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	8.2387	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1956	0.1295	1.2196	3.5100e-003	0.4610	2.6200e-003	0.4637	0.1223	2.4100e-003	0.1247		349.4325	349.4325	8.7000e-003		349.6501
Total	0.1956	0.1295	1.2196	3.5100e-003	0.4610	2.6200e-003	0.4637	0.1223	2.4100e-003	0.1247		349.4325	349.4325	8.7000e-003		349.6501

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Transit Accessibility

Integrate Below Market Rate Housing

Improve Pedestrian Network

Provide Traffic Calming Measures

Limit Parking Supply

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	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	3.2431	11.5251	33.3030	0.0910	9.1557	0.0790	9.2347	2.4533	0.0738	2.5271		9,255.3391	9,255.3391	0.4527		9,266.6560
Unmitigated	3.3725	12.3617	36.4391	0.1033	10.4961	0.0886	10.5847	2.8125	0.0828	2.8953		10,506.6456	10,506.6456	0.4995		10,519.1324

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	792.50	895.00	758.75	1,761,031	1,536,144
Apartments Mid Rise	1,312.38	1,322.73	1213.02	2,914,159	2,542,015
City Park	100.00	45.50	33.48	181	158
Parking Lot	0.00	0.00	0.00		
Total	2,204.88	2,263.23	2,005.25	4,675,371	4,078,317

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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	6.03	6.03	6.03	25.60	9.90	64.50	100	0	0
Apartments Mid Rise	6.16	6.16	6.16	25.60	9.90	64.50	100	0	0
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Apartments Mid Rise	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
City Park	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Parking Lot	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Natural Gas Mitigated	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153
Natural Gas Unmitigated	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153

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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	4369.72	0.0471	0.4027	0.1714	2.5700e-003		0.0326	0.0326		0.0326	0.0326		514.0850	514.0850	9.8500e-003	9.4200e-003	517.1400
Apartments Mid Rise	6480.78	0.0699	0.5973	0.2542	3.8100e-003		0.0483	0.0483		0.0483	0.0483		762.4446	762.4446	0.0146	0.0140	766.9754
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	4.36972	0.0471	0.4027	0.1714	2.5700e-003		0.0326	0.0326		0.0326	0.0326		514.0850	514.0850	9.8500e-003	9.4200e-003	517.1400
Apartments Mid Rise	6.48078	0.0699	0.5973	0.2542	3.8100e-003		0.0483	0.0483		0.0483	0.0483		762.4446	762.4446	0.0146	0.0140	766.9754
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153

6.0 Area Detail

6.1 Mitigation Measures Area

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	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	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295
Unmitigated	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295

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	0.7528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.1862					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	0.8284	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520		49.4386	49.4386	0.0476		50.6295
Total	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.1862					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	0.8284	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520		49.4386	49.4386	0.0476		50.6295
Total	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295

7.0 Water Detail

7.1 Mitigation Measures Water

- Apply Water Conservation Strategy
- 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
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Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

Heritage Ridge Residential Project - AQ
Santa Barbara County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	543.00	Space	4.47	217,200.00	0
City Park	2.00	Acre	2.00	87,120.00	0
Apartments Low Rise	125.00	Dwelling Unit	5.64	125,000.00	316
Apartments Mid Rise	207.00	Dwelling Unit	3.94	207,000.00	523

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	37
Climate Zone	8			Operational Year	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

Project Characteristics -

Land Use - Low-rise = 2-story Buildings 1, 4, 5, and 6; Mid-rise = 3-story Buildings 2, 3, 7, 8, 9, and 10; Pop per PD (total 839); Total acreage 16.05

Construction Phase - Schedule per applicant; arch coating halfway through building construction

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Trenching equip per previous CalEEMod run (2014)

Trips and VMT -

Grading - Export modeled separately

Architectural Coating -

Vehicle Trips - Trip rates per Associated Transportation Engineers (2021 Trip Gen); trip lengths per total project VMT (based solely on dwelling units)

Construction Off-road Equipment Mitigation - SBCAPCD dust control requirement = water 2x daily

Mobile Land Use Mitigation -

Energy Mitigation - 2019 Energy Code requires 100% on-site solar

Water Mitigation - 20% indoor water red per Part 11 Title 24; Water-efficient irrigation per CalGreen

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	10
tblConstructionPhase	NumDays	10.00	155.00
tblConstructionPhase	NumDays	30.00	103.00
tblConstructionPhase	NumDays	20.00	52.00
tblConstructionPhase	NumDays	300.00	654.00
tblConstructionPhase	NumDays	20.00	341.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblLandUse	LotAcreage	4.89	4.47
tblLandUse	LotAcreage	7.81	5.64
tblLandUse	LotAcreage	5.45	3.94
tblLandUse	Population	340.00	316.00
tblLandUse	Population	563.00	523.00
tblVehicleTrips	CC_TL	5.50	0.00
tblVehicleTrips	CNW_TL	6.40	0.00
tblVehicleTrips	CW_TL	6.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	4.90	6.03
tblVehicleTrips	HO_TL	4.90	6.16
tblVehicleTrips	HS_TL	4.50	6.03
tblVehicleTrips	HS_TL	4.50	6.16
tblVehicleTrips	HW_TL	8.30	6.03
tblVehicleTrips	HW_TL	8.30	6.16
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	WD_TR	6.59	6.34
tblVehicleTrips	WD_TR	6.65	6.34
tblVehicleTrips	WD_TR	1.89	50.00

2.0 Emissions Summary

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

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					
2021	3.9403	40.5360	21.5365	0.0390	18.1799	2.0452	20.2251	9.9608	1.8816	11.8424	0.0000	3,784.4992	3,784.4992	1.1951	0.0000	3,814.3756
2022	6.8975	72.0003	49.4745	0.1021	26.9796	3.2489	30.2285	13.5909	2.9890	16.5799	0.0000	9,898.6957	9,898.6957	3.1421	0.0000	9,977.2475
2023	11.1271	23.2022	28.1583	0.0719	3.2821	0.7974	4.0795	0.8820	0.7543	1.6363	0.0000	7,212.0674	7,212.0674	0.8410	0.0000	7,233.0919
2024	10.9338	21.9428	27.3092	0.0709	3.2821	0.6998	3.9820	0.8820	0.6617	1.5438	0.0000	7,112.4181	7,112.4181	0.8338	0.0000	7,133.2628
Maximum	11.1271	72.0003	49.4745	0.1021	26.9796	3.2489	30.2285	13.5909	2.9890	16.5799	0.0000	9,898.6957	9,898.6957	3.1421	0.0000	9,977.2475

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

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	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295
Energy	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153
Mobile	3.4466	11.9438	34.2909	0.1056	10.4961	0.0881	10.5842	2.8125	0.0823	2.8948		10,741.7072	10,741.7072	0.4852		10,753.8368
Total	12.3310	13.2597	62.1509	0.1134	10.4961	0.3209	10.8170	2.8125	0.3151	3.1276	0.0000	12,067.6754	12,067.6754	0.5573	0.0234	12,088.5816

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	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295
Energy	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153
Mobile	3.3185	11.1606	31.1117	0.0930	9.1557	0.0785	9.2342	2.4533	0.0733	2.5266		9,467.7344	9,467.7344	0.4380		9,478.6848
Total	12.2029	12.4765	58.9716	0.1009	9.1557	0.3113	9.4670	2.4533	0.3061	2.7594	0.0000	10,793.7026	10,793.7026	0.5101	0.0234	10,813.4296

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

	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	1.04	5.91	5.12	11.06	12.77	2.99	12.48	12.77	2.85	11.77	0.00	10.56	10.56	8.46	0.00	10.55

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2021	2/28/2022	6	155	
2	Grading	Grading	1/1/2022	4/30/2022	6	103	
3	Site Utilities	Trenching	4/1/2022	6/30/2022	6	78	
4	Paving	Paving	6/1/2022	7/30/2022	6	52	
5	Building Construction	Building Construction	8/1/2022	8/31/2024	6	654	
6	Architectural Coating	Architectural Coating	8/1/2023	8/31/2024	6	341	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 257.5

Acres of Paving: 4.47

Residential Indoor: 672,300; Residential Outdoor: 224,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 13,032 (Architectural Coating – sqft)

OffRoad Equipment

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Excavators	3	8.00	158	0.38
Site Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Trenchers	1	4.00	78	0.50
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Utilities	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	367.00	85.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

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	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

3.2 Site Preparation - 2021

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	0.0522	0.0389	0.3822	9.9000e-004	0.1137	7.0000e-004	0.1144	0.0302	6.5000e-004	0.0308		98.8423	98.8423	3.0400e-003		98.9183
Total	0.0522	0.0389	0.3822	9.9000e-004	0.1137	7.0000e-004	0.1144	0.0302	6.5000e-004	0.0308		98.8423	98.8423	3.0400e-003		98.9183

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	8.1298	2.0445	10.1743	4.4688	1.8809	6.3497	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

3.2 Site Preparation - 2021

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	0.0522	0.0389	0.3822	9.9000e-004	0.1137	7.0000e-004	0.1144	0.0302	6.5000e-004	0.0308		98.8423	98.8423	3.0400e-003		98.9183
Total	0.0522	0.0389	0.3822	9.9000e-004	0.1137	7.0000e-004	0.1144	0.0302	6.5000e-004	0.0308		98.8423	98.8423	3.0400e-003		98.9183

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	18.0663	1.6126	19.6788	9.9307	1.4836	11.4143		3,686.0619	3,686.0619	1.1922		3,715.8655

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

3.2 Site Preparation - 2022

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	0.0486	0.0347	0.3483	9.6000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308		95.3163	95.3163	2.7100e-003		95.3840
Total	0.0486	0.0347	0.3483	9.6000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308		95.3163	95.3163	2.7100e-003		95.3840

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	8.1298	1.6126	9.7424	4.4688	1.4836	5.9524	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

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3.2 Site Preparation - 2022

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	0.0486	0.0347	0.3483	9.6000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308		95.3163	95.3163	2.7100e-003		95.3840
Total	0.0486	0.0347	0.3483	9.6000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308		95.3163	95.3163	2.7100e-003		95.3840

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006		6,011.4105	6,011.4105	1.9442		6,060.0158

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3.3 Grading - 2022

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	0.0540	0.0386	0.3870	1.0600e-003	0.1263	7.6000e-004	0.1271	0.0335	7.0000e-004	0.0342		105.9070	105.9070	3.0100e-003		105.9822
Total	0.0540	0.0386	0.3870	1.0600e-003	0.1263	7.6000e-004	0.1271	0.0335	7.0000e-004	0.0342		105.9070	105.9070	3.0100e-003		105.9822

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					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	3.9030	1.6349	5.5379	1.6184	1.5041	3.1225	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

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3.3 Grading - 2022

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	0.0540	0.0386	0.3870	1.0600e-003	0.1263	7.6000e-004	0.1271	0.0335	7.0000e-004	0.0342		105.9070	105.9070	3.0100e-003		105.9822
Total	0.0540	0.0386	0.3870	1.0600e-003	0.1263	7.6000e-004	0.1271	0.0335	7.0000e-004	0.0342		105.9070	105.9070	3.0100e-003		105.9822

3.4 Site Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1186	10.3720	15.5408	0.0234		0.5577	0.5577		0.5131	0.5131		2,265.9984	2,265.9984	0.7329		2,284.3202
Total	1.1186	10.3720	15.5408	0.0234		0.5577	0.5577		0.5131	0.5131		2,265.9984	2,265.9984	0.7329		2,284.3202

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3.4 Site Utilities - 2022

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	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		79.4303	79.4303	2.2600e-003		79.4866
Total	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		79.4303	79.4303	2.2600e-003		79.4866

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	1.1186	10.3720	15.5408	0.0234		0.5577	0.5577		0.5131	0.5131	0.0000	2,265.9984	2,265.9984	0.7329		2,284.3202
Total	1.1186	10.3720	15.5408	0.0234		0.5577	0.5577		0.5131	0.5131	0.0000	2,265.9984	2,265.9984	0.7329		2,284.3202

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3.4 Site Utilities - 2022

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	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		79.4303	79.4303	2.2600e-003		79.4866
Total	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		79.4303	79.4303	2.2600e-003		79.4866

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.2252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3280	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

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3.5 Paving - 2022

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	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		79.4303	79.4303	2.2600e-003		79.4866
Total	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		79.4303	79.4303	2.2600e-003		79.4866

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.2252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3280	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

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3.5 Paving - 2022

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	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		79.4303	79.4303	2.2600e-003		79.4866
Total	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		79.4303	79.4303	2.2600e-003		79.4866

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

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3.6 Building Construction - 2022

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	0.2532	8.1177	2.5707	0.0199	0.5033	0.0220	0.5254	0.1448	0.0211	0.1659		2,171.0179	2,171.0179	0.1636		2,175.1089
Worker	0.9901	0.7079	7.1011	0.0195	2.3178	0.0139	2.3317	0.6149	0.0128	0.6277		1,943.3938	1,943.3938	0.0552		1,944.7732
Total	1.2433	8.8256	9.6718	0.0394	2.8211	0.0359	2.8570	0.7597	0.0339	0.7936		4,114.4116	4,114.4116	0.2188		4,119.8821

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

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3.6 Building Construction - 2022

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	0.2532	8.1177	2.5707	0.0199	0.5033	0.0220	0.5254	0.1448	0.0211	0.1659		2,171.0179	2,171.0179	0.1636		2,175.1089
Worker	0.9901	0.7079	7.1011	0.0195	2.3178	0.0139	2.3317	0.6149	0.0128	0.6277		1,943.3938	1,943.3938	0.0552		1,944.7732
Total	1.2433	8.8256	9.6718	0.0394	2.8211	0.0359	2.8570	0.7597	0.0339	0.7936		4,114.4116	4,114.4116	0.2188		4,119.8821

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

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3.6 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1968	6.7541	2.3242	0.0195	0.5033	0.0106	0.5139	0.1448	0.0101	0.1550		2,132.5462	2,132.5462	0.1573		2,136.4780
Worker	0.9241	0.6341	6.4884	0.0188	2.3178	0.0135	2.3313	0.6149	0.0125	0.6274		1,870.7518	1,870.7518	0.0492		1,871.9826
Total	1.1209	7.3882	8.8126	0.0382	2.8211	0.0241	2.8452	0.7597	0.0226	0.7823		4,003.2981	4,003.2981	0.2065		4,008.4606

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

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3.6 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1968	6.7541	2.3242	0.0195	0.5033	0.0106	0.5139	0.1448	0.0101	0.1550		2,132.5462	2,132.5462	0.1573		2,136.4780
Worker	0.9241	0.6341	6.4884	0.0188	2.3178	0.0135	2.3313	0.6149	0.0125	0.6274		1,870.7518	1,870.7518	0.0492		1,871.9826
Total	1.1209	7.3882	8.8126	0.0382	2.8211	0.0241	2.8452	0.7597	0.0226	0.7823		4,003.2981	4,003.2981	0.2065		4,008.4606

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

3.6 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1862	6.5976	2.1869	0.0193	0.5033	9.8100e-003	0.5131	0.1448	9.3800e-003	0.1542		2,119.3148	2,119.3148	0.1608		2,123.3353
Worker	0.8652	0.5694	5.9599	0.0181	2.3178	0.0132	2.3310	0.6149	0.0121	0.6270		1,798.2636	1,798.2636	0.0440		1,799.3639
Total	1.0514	7.1670	8.1468	0.0373	2.8211	0.0230	2.8441	0.7597	0.0215	0.7812		3,917.5784	3,917.5784	0.2048		3,922.6992

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

3.6 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1862	6.5976	2.1869	0.0193	0.5033	9.8100e-003	0.5131	0.1448	9.3800e-003	0.1542		2,119.3148	2,119.3148	0.1608		2,123.3353
Worker	0.8652	0.5694	5.9599	0.0181	2.3178	0.0132	2.3310	0.6149	0.0121	0.6270		1,798.2636	1,798.2636	0.0440		1,799.3639
Total	1.0514	7.1670	8.1468	0.0373	2.8211	0.0230	2.8441	0.7597	0.0215	0.7812		3,917.5784	3,917.5784	0.2048		3,922.6992

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	8.2496	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1838	0.1261	1.2906	3.7400e-003	0.4610	2.6900e-003	0.4637	0.1223	2.4800e-003	0.1248		372.1114	372.1114	9.7900e-003		372.3562
Total	0.1838	0.1261	1.2906	3.7400e-003	0.4610	2.6900e-003	0.4637	0.1223	2.4800e-003	0.1248		372.1114	372.1114	9.7900e-003		372.3562

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	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	8.2496	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1838	0.1261	1.2906	3.7400e-003	0.4610	2.6900e-003	0.4637	0.1223	2.4800e-003	0.1248		372.1114	372.1114	9.7900e-003		372.3562
Total	0.1838	0.1261	1.2906	3.7400e-003	0.4610	2.6900e-003	0.4637	0.1223	2.4800e-003	0.1248		372.1114	372.1114	9.7900e-003		372.3562

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	8.2387	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1721	0.1133	1.1855	3.5900e-003	0.4610	2.6200e-003	0.4637	0.1223	2.4100e-003	0.1247		357.6928	357.6928	8.7500e-003		357.9116
Total	0.1721	0.1133	1.1855	3.5900e-003	0.4610	2.6200e-003	0.4637	0.1223	2.4100e-003	0.1247		357.6928	357.6928	8.7500e-003		357.9116

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	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	8.2387	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1721	0.1133	1.1855	3.5900e-003	0.4610	2.6200e-003	0.4637	0.1223	2.4100e-003	0.1247		357.6928	357.6928	8.7500e-003		357.9116
Total	0.1721	0.1133	1.1855	3.5900e-003	0.4610	2.6200e-003	0.4637	0.1223	2.4100e-003	0.1247		357.6928	357.6928	8.7500e-003		357.9116

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

- Increase Density
- Increase Transit Accessibility
- Integrate Below Market Rate Housing
- Improve Pedestrian Network
- Provide Traffic Calming Measures
- Limit Parking Supply

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

	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	3.3185	11.1606	31.1117	0.0930	9.1557	0.0785	9.2342	2.4533	0.0733	2.5266		9,467.7344	9,467.7344	0.4380		9,478.6848
Unmitigated	3.4466	11.9438	34.2909	0.1056	10.4961	0.0881	10.5842	2.8125	0.0823	2.8948		10,741.7072	10,741.7072	0.4852		10,753.8368

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	792.50	895.00	758.75	1,761,031	1,536,144
Apartments Mid Rise	1,312.38	1,322.73	1213.02	2,914,159	2,542,015
City Park	100.00	45.50	33.48	181	158
Parking Lot	0.00	0.00	0.00		
Total	2,204.88	2,263.23	2,005.25	4,675,371	4,078,317

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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	6.03	6.03	6.03	25.60	9.90	64.50	100	0	0
Apartments Mid Rise	6.16	6.16	6.16	25.60	9.90	64.50	100	0	0
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Apartments Mid Rise	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
City Park	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Parking Lot	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Natural Gas Mitigated	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153
Natural Gas Unmitigated	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

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	4369.72	0.0471	0.4027	0.1714	2.5700e-003		0.0326	0.0326		0.0326	0.0326		514.0850	514.0850	9.8500e-003	9.4200e-003	517.1400
Apartments Mid Rise	6480.78	0.0699	0.5973	0.2542	3.8100e-003		0.0483	0.0483		0.0483	0.0483		762.4446	762.4446	0.0146	0.0140	766.9754
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	4.36972	0.0471	0.4027	0.1714	2.5700e-003		0.0326	0.0326		0.0326	0.0326		514.0850	514.0850	9.8500e-003	9.4200e-003	517.1400
Apartments Mid Rise	6.48078	0.0699	0.5973	0.2542	3.8100e-003		0.0483	0.0483		0.0483	0.0483		762.4446	762.4446	0.0146	0.0140	766.9754
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153

6.0 Area Detail

6.1 Mitigation Measures Area

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

	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	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295
Unmitigated	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295

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	0.7528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.1862					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	0.8284	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520		49.4386	49.4386	0.0476		50.6295
Total	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.1862					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	0.8284	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520		49.4386	49.4386	0.0476		50.6295
Total	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295

7.0 Water Detail

7.1 Mitigation Measures Water

- Apply Water Conservation Strategy
- 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
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Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ
Santa Barbara County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Residential	1.00	Dwelling Unit	16.05	699,138.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	37
Climate Zone	8			Operational Year	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	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 and sf per PD; User-Defined Res for pre-construction export of stockpiled material

Construction Phase - 27 weeks

Off-road Equipment - Equip per applicant info

Trips and VMT - 115,000 CY export with truck haul capacity 9 CY = 25,556 one-way haul trips. 3 workers on site per day.

Grading -

Energy Use -

Construction Off-road Equipment Mitigation - Veh speed per applicant; SBCAPCD dust control requirements = water 2x daily

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	10
tblConstructionPhase	NumDays	30.00	162.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialExported	0.00	115,000.00
tblLandUse	LandUseSquareFeet	0.00	699,138.00
tblLandUse	LotAcreage	0.00	16.05
tblLandUse	Population	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Pre-Construction Export - Grading
tblTripsAndVMT	HaulingTripNumber	14,375.00	25,556.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00

2.0 Emissions Summary

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	8-15-2021	11-14-2021	1.7482	1.7482
4	11-15-2021	2-14-2022	2.0523	2.0523
5	2-15-2022	5-14-2022	0.4667	0.4667
		Highest	2.0523	2.0523

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	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.0041	9.0000e-005	7.4200e-003	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.0041	9.0000e-005	7.4200e-003	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124

	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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Pre-Construction Export - Grading	Grading	9/1/2021	3/8/2022	6	162	

Acres of Grading (Site Preparation Phase): 0

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Pre-Construction Export - Grading	Crawler Tractors	1	8.00	212	0.43
Pre-Construction Export - Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Pre-Construction Export - Grading	2	6.00	0.00	25,556.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

3.2 Pre-Construction Export - Grading - 2021

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					0.0523	0.0000	0.0523	6.0500e-003	0.0000	6.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0388	0.4654	0.2465	5.8000e-004		0.0196	0.0196		0.0181	0.0181	0.0000	50.5449	50.5449	0.0164	0.0000	50.9536
Total	0.0388	0.4654	0.2465	5.8000e-004	0.0523	0.0196	0.0719	6.0500e-003	0.0181	0.0241	0.0000	50.5449	50.5449	0.0164	0.0000	50.9536

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	0.0634	2.3276	0.7054	6.3000e-003	0.1990	9.0200e-003	0.2081	0.0529	8.6300e-003	0.0615	0.0000	640.1157	640.1157	0.0615	0.0000	641.6521
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	9.4000e-004	7.6000e-004	6.7600e-003	2.0000e-005	1.9500e-003	1.0000e-005	1.9600e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.5350	1.5350	5.0000e-005	0.0000	1.5362
Total	0.0644	2.3284	0.7122	6.3200e-003	0.2010	9.0300e-003	0.2100	0.0534	8.6400e-003	0.0621	0.0000	641.6507	641.6507	0.0615	0.0000	643.1883

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

3.2 Pre-Construction Export - Grading - 2021

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					0.0235	0.0000	0.0235	2.7200e-003	0.0000	2.7200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0388	0.4654	0.2465	5.8000e-004		0.0196	0.0196		0.0181	0.0181	0.0000	50.5449	50.5449	0.0164	0.0000	50.9536
Total	0.0388	0.4654	0.2465	5.8000e-004	0.0235	0.0196	0.0432	2.7200e-003	0.0181	0.0208	0.0000	50.5449	50.5449	0.0164	0.0000	50.9536

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	0.0634	2.3276	0.7054	6.3000e-003	0.1990	9.0200e-003	0.2081	0.0529	8.6300e-003	0.0615	0.0000	640.1157	640.1157	0.0615	0.0000	641.6521
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	9.4000e-004	7.6000e-004	6.7600e-003	2.0000e-005	1.9500e-003	1.0000e-005	1.9600e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.5350	1.5350	5.0000e-005	0.0000	1.5362
Total	0.0644	2.3284	0.7122	6.3200e-003	0.2010	9.0300e-003	0.2100	0.0534	8.6400e-003	0.0621	0.0000	641.6507	641.6507	0.0615	0.0000	643.1883

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

3.2 Pre-Construction Export - Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0523	0.0000	0.0523	6.0500e-003	0.0000	6.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0187	0.2190	0.1298	3.1000e-004		9.0300e-003	9.0300e-003		8.3100e-003	8.3100e-003	0.0000	27.4131	27.4131	8.8700e-003	0.0000	27.6347
Total	0.0187	0.2190	0.1298	3.1000e-004	0.0523	9.0300e-003	0.0613	6.0500e-003	8.3100e-003	0.0144	0.0000	27.4131	27.4131	8.8700e-003	0.0000	27.6347

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	0.0323	1.1575	0.3711	3.3600e-003	0.1833	4.2200e-003	0.1875	0.0472	4.0400e-003	0.0512	0.0000	343.0469	343.0469	0.0344	0.0000	343.9069
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	4.7000e-004	3.7000e-004	3.3400e-003	1.0000e-005	1.0600e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8036	0.8036	2.0000e-005	0.0000	0.8042
Total	0.0327	1.1579	0.3744	3.3700e-003	0.1844	4.2300e-003	0.1886	0.0475	4.0500e-003	0.0515	0.0000	343.8505	343.8505	0.0344	0.0000	344.7111

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

3.2 Pre-Construction Export - Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0235	0.0000	0.0235	2.7200e-003	0.0000	2.7200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0187	0.2190	0.1298	3.1000e-004		9.0300e-003	9.0300e-003		8.3100e-003	8.3100e-003	0.0000	27.4130	27.4130	8.8700e-003	0.0000	27.6347
Total	0.0187	0.2190	0.1298	3.1000e-004	0.0235	9.0300e-003	0.0326	2.7200e-003	8.3100e-003	0.0110	0.0000	27.4130	27.4130	8.8700e-003	0.0000	27.6347

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	0.0323	1.1575	0.3711	3.3600e-003	0.1833	4.2200e-003	0.1875	0.0472	4.0400e-003	0.0512	0.0000	343.0469	343.0469	0.0344	0.0000	343.9069
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	4.7000e-004	3.7000e-004	3.3400e-003	1.0000e-005	1.0600e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8036	0.8036	2.0000e-005	0.0000	0.8042
Total	0.0327	1.1579	0.3744	3.3700e-003	0.1844	4.2300e-003	0.1886	0.0475	4.0500e-003	0.0515	0.0000	343.8505	343.8505	0.0344	0.0000	344.7111

4.0 Operational Detail - Mobile

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Residential	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
User Defined Residential	8.30	4.50	4.90	25.60	9.90	64.50	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Residential	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

	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	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Unmitigated	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124

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	0.2734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.7305					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	2.2000e-004	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Total	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.7305					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	2.2000e-004	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Total	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124

7.0 Water Detail

7.1 Mitigation Measures Water

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Residential	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Residential	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ
Santa Barbara County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Residential	1.00	Dwelling Unit	16.05	699,138.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	37
Climate Zone	8			Operational Year	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	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 and sf per PD; User-Defined Res for pre-construction export of stockpiled material

Construction Phase - 24 weeks

Off-road Equipment - Equip per applicant info

Trips and VMT - 115,000 CY export with truck haul capacity 20 CY = 11,500 one-way haul trips. 3 workers on site per day.

Grading -

Energy Use -

Construction Off-road Equipment Mitigation - Veh speed per applicant; SBCAPCD dust control requirement = water 2x daily

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	10
tblConstructionPhase	NumDays	30.00	144.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialExported	0.00	115,000.00
tblLandUse	LandUseSquareFeet	0.00	699,138.00
tblLandUse	LotAcreage	0.00	16.05
tblLandUse	Population	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	11,500.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00

2.0 Emissions Summary

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	8-15-2021	11-14-2021	1.0379	1.0379
4	11-15-2021	2-14-2022	1.2145	1.2145
5	2-15-2022	5-14-2022	0.0125	0.0125
		Highest	1.2145	1.2145

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	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.0041	9.0000e-005	7.4200e-003	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.0041	9.0000e-005	7.4200e-003	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124

	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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Pre-Construction Export - Grading	Grading	9/1/2021	2/15/2022	6	144	

Acres of Grading (Site Preparation Phase): 0

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Pre-Construction Export - Grading	Crawler Tractors	1	8.00	212	0.43
Pre-Construction Export - Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Pre-Construction Export - Grading	2	6.00	0.00	11,500.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

3.2 Pre-Construction Export - Grading - 2021

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					0.0475	0.0000	0.0475	5.5300e-003	0.0000	5.5300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0388	0.4654	0.2465	5.8000e-004		0.0196	0.0196		0.0181	0.0181	0.0000	50.5449	50.5449	0.0164	0.0000	50.9536
Total	0.0388	0.4654	0.2465	5.8000e-004	0.0475	0.0196	0.0671	5.5300e-003	0.0181	0.0236	0.0000	50.5449	50.5449	0.0164	0.0000	50.9536

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	0.0321	1.1783	0.3571	3.1900e-003	0.0915	4.5600e-003	0.0961	0.0245	4.3700e-003	0.0289	0.0000	324.0529	324.0529	0.0311	0.0000	324.8307
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	9.4000e-004	7.6000e-004	6.7600e-003	2.0000e-005	1.9500e-003	1.0000e-005	1.9600e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.5350	1.5350	5.0000e-005	0.0000	1.5362
Total	0.0331	1.1791	0.3639	3.2100e-003	0.0935	4.5700e-003	0.0980	0.0250	4.3800e-003	0.0294	0.0000	325.5879	325.5879	0.0312	0.0000	326.3669

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

3.2 Pre-Construction Export - Grading - 2021

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					0.0214	0.0000	0.0214	2.4900e-003	0.0000	2.4900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0388	0.4654	0.2465	5.8000e-004		0.0196	0.0196		0.0181	0.0181	0.0000	50.5449	50.5449	0.0164	0.0000	50.9536
Total	0.0388	0.4654	0.2465	5.8000e-004	0.0214	0.0196	0.0410	2.4900e-003	0.0181	0.0206	0.0000	50.5449	50.5449	0.0164	0.0000	50.9536

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	0.0321	1.1783	0.3571	3.1900e-003	0.0915	4.5600e-003	0.0961	0.0245	4.3700e-003	0.0289	0.0000	324.0529	324.0529	0.0311	0.0000	324.8307
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	9.4000e-004	7.6000e-004	6.7600e-003	2.0000e-005	1.9500e-003	1.0000e-005	1.9600e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.5350	1.5350	5.0000e-005	0.0000	1.5362
Total	0.0331	1.1791	0.3639	3.2100e-003	0.0935	4.5700e-003	0.0980	0.0250	4.3800e-003	0.0294	0.0000	325.5879	325.5879	0.0312	0.0000	326.3669

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

3.2 Pre-Construction Export - Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0475	0.0000	0.0475	5.5300e-003	0.0000	5.5300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0128	0.1498	0.0888	2.1000e-004		6.1800e-003	6.1800e-003		5.6800e-003	5.6800e-003	0.0000	18.7563	18.7563	6.0700e-003	0.0000	18.9080
Total	0.0128	0.1498	0.0888	2.1000e-004	0.0475	6.1800e-003	0.0537	5.5300e-003	5.6800e-003	0.0112	0.0000	18.7563	18.7563	6.0700e-003	0.0000	18.9080

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	0.0112	0.4009	0.1285	1.1700e-003	0.0806	1.4600e-003	0.0820	0.0205	1.4000e-003	0.0219	0.0000	118.8231	118.8231	0.0119	0.0000	119.1210
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	3.2000e-004	2.5000e-004	2.2900e-003	1.0000e-005	7.2000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5498	0.5498	2.0000e-005	0.0000	0.5502
Total	0.0115	0.4012	0.1308	1.1800e-003	0.0813	1.4600e-003	0.0828	0.0207	1.4000e-003	0.0221	0.0000	119.3729	119.3729	0.0119	0.0000	119.6712

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3.2 Pre-Construction Export - Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0214	0.0000	0.0214	2.4900e-003	0.0000	2.4900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0128	0.1498	0.0888	2.1000e-004		6.1800e-003	6.1800e-003		5.6800e-003	5.6800e-003	0.0000	18.7563	18.7563	6.0700e-003	0.0000	18.9079
Total	0.0128	0.1498	0.0888	2.1000e-004	0.0214	6.1800e-003	0.0276	2.4900e-003	5.6800e-003	8.1700e-003	0.0000	18.7563	18.7563	6.0700e-003	0.0000	18.9079

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	0.0112	0.4009	0.1285	1.1700e-003	0.0806	1.4600e-003	0.0820	0.0205	1.4000e-003	0.0219	0.0000	118.8231	118.8231	0.0119	0.0000	119.1210
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	3.2000e-004	2.5000e-004	2.2900e-003	1.0000e-005	7.2000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5498	0.5498	2.0000e-005	0.0000	0.5502
Total	0.0115	0.4012	0.1308	1.1800e-003	0.0813	1.4600e-003	0.0828	0.0207	1.4000e-003	0.0221	0.0000	119.3729	119.3729	0.0119	0.0000	119.6712

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Residential	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
User Defined Residential	8.30	4.50	4.90	25.60	9.90	64.50	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Residential	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

	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	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Unmitigated	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124

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	0.2734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.7305					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	2.2000e-004	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Total	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.7305					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	2.2000e-004	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Total	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124

7.0 Water Detail

7.1 Mitigation Measures Water

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Residential	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Residential	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Heritage Ridge Residential Project - GHG - Santa Barbara County APCD Air District, Annual

Heritage Ridge Residential Project - GHG
Santa Barbara County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	543.00	Space	4.47	217,200.00	0
City Park	2.00	Acre	2.00	87,120.00	0
Apartments Low Rise	125.00	Dwelling Unit	5.64	125,000.00	316
Apartments Mid Rise	207.00	Dwelling Unit	3.94	207,000.00	523

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	37
Climate Zone	8			Operational Year	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	353.87	CH4 Intensity (lb/MWhr)	0.015	N2O Intensity (lb/MWhr)	0.003

1.3 User Entered Comments & Non-Default Data

Heritage Ridge Residential Project - GHG - Santa Barbara County APCD Air District, Annual

Project Characteristics - Utility factor per 2030 RPS

Land Use - Low-rise = 2-story Buildings 1, 4, 5, and 6; Mid-rise = 3-story Buildings 2, 3, 7, 8, 9, and 10; Pop per PD (total 839); Total acreage 16.05

Construction Phase - Schedule per applicant; arch coating halfway through building construction

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Trenching equip per previous CalEEMod run (2014)

Trips and VMT -

Grading - Export modeled separately

Architectural Coating -

Vehicle Trips - Trip rates per Associated Transportation Engineers (2021 Trip Gen); trip lengths per total project VMT (based solely on dwelling units)

Energy Use -

Construction Off-road Equipment Mitigation - SBCAPCD dust control requirement = water 2x daily

Mobile Land Use Mitigation -

Energy Mitigation - 2019 Energy Code requires 100% on-site solar

Water Mitigation - 20% indoor water red per Part 11 Title 24; Water-efficient irrigation per CalGreen

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	10
tblConstructionPhase	NumDays	10.00	155.00
tblConstructionPhase	NumDays	30.00	103.00
tblConstructionPhase	NumDays	20.00	52.00
tblConstructionPhase	NumDays	300.00	654.00
tblConstructionPhase	NumDays	20.00	341.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

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tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblLandUse	LotAcreage	4.89	4.47
tblLandUse	LotAcreage	7.81	5.64
tblLandUse	LotAcreage	5.45	3.94
tblLandUse	Population	340.00	316.00
tblLandUse	Population	563.00	523.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	353.87
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	CC_TL	5.50	0.00
tblVehicleTrips	CNW_TL	6.40	0.00
tblVehicleTrips	CW_TL	6.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	4.90	6.03
tblVehicleTrips	HO_TL	4.90	6.16
tblVehicleTrips	HS_TL	4.50	6.03
tblVehicleTrips	HS_TL	4.50	6.16
tblVehicleTrips	HW_TL	8.30	6.03
tblVehicleTrips	HW_TL	8.30	6.16
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	WD_TR	6.59	6.34

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tblVehicleTrips	WD_TR	6.65	6.34
tblVehicleTrips	WD_TR	1.89	50.00

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					
2021	0.2069	2.1284	1.1309	2.0500e-003	0.9543	0.1074	1.0617	0.5229	0.0988	0.6217	0.0000	180.1426	180.1426	0.0569	0.0000	181.5655
2022	0.5478	5.1508	4.7528	0.0101	1.0957	0.2169	1.3126	0.4867	0.2007	0.6874	0.0000	903.6761	903.6761	0.2109	0.0000	908.9486
2023	0.9779	3.5118	4.1379	0.0105	0.4602	0.1178	0.5780	0.1241	0.1111	0.2351	0.0000	957.6839	957.6839	0.1172	0.0000	960.6139
2024	1.1518	2.3180	2.8831	7.3700e-003	0.3372	0.0735	0.4107	0.0908	0.0695	0.1603	0.0000	670.9655	670.9655	0.0797	0.0000	672.9573
Maximum	1.1518	5.1508	4.7528	0.0105	1.0957	0.2169	1.3126	0.5229	0.2007	0.6874	0.0000	957.6839	957.6839	0.2109	0.0000	960.6139

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2.1 Overall Construction

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					
2021	0.2069	2.1284	1.1309	2.0500e-003	0.4327	0.1074	0.5400	0.2362	0.0988	0.3349	0.0000	180.1424	180.1424	0.0569	0.0000	181.5653
2022	0.5478	5.1508	4.7528	0.0101	0.6016	0.2169	0.8186	0.2483	0.2007	0.4490	0.0000	903.6753	903.6753	0.2109	0.0000	908.9479
2023	0.9779	3.5118	4.1379	0.0105	0.4602	0.1178	0.5780	0.1241	0.1111	0.2351	0.0000	957.6834	957.6834	0.1172	0.0000	960.6135
2024	1.1518	2.3180	2.8831	7.3700e-003	0.3372	0.0735	0.4107	0.0908	0.0695	0.1603	0.0000	670.9652	670.9652	0.0797	0.0000	672.9569
Maximum	1.1518	5.1508	4.7528	0.0105	0.6016	0.2169	0.8186	0.2483	0.2007	0.4490	0.0000	957.6834	957.6834	0.2109	0.0000	960.6135

	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
Percent Reduction	0.00	0.00	0.00	0.00	35.67	0.00	30.20	42.89	0.00	30.81	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2021	11-30-2021	1.7349	1.7349
2	12-1-2021	2-28-2022	2.5867	2.5867
3	3-1-2022	5-31-2022	1.4150	1.4150
4	6-1-2022	8-31-2022	0.8345	0.8345
5	9-1-2022	11-30-2022	1.0737	1.0737
6	12-1-2022	2-28-2023	0.9901	0.9901
7	3-1-2023	5-31-2023	0.9672	0.9672
8	6-1-2023	8-31-2023	1.0957	1.0957

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9	9-1-2023	11-30-2023	1.3449	1.3449
10	12-1-2023	2-29-2024	1.3101	1.3101
11	3-1-2024	5-31-2024	1.2991	1.2991
12	6-1-2024	8-31-2024	1.2963	1.2963
		Highest	2.5867	2.5867

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	1.5229	0.0284	2.4636	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8600e-003	0.0000	4.1330
Energy	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	439.0991	439.0991	0.0137	5.8100e-003	441.1717
Mobile	0.4038	1.6721	4.1518	0.0151	1.7689	0.0104	1.7794	0.4743	9.7200e-003	0.4840	0.0000	1,404.5607	1,404.5607	0.0647	0.0000	1,406.1788
Waste						0.0000	0.0000		0.0000	0.0000	31.7497	0.0000	31.7497	1.5744	0.0000	71.1087
Water						0.0000	0.0000		0.0000	0.0000	7.6531	27.7873	35.4405	0.0275	0.0169	41.1583
Total	1.9480	1.8830	6.6931	0.0164	1.7689	0.0389	1.8078	0.4743	0.0382	0.5125	39.4028	1,875.4836	1,914.8864	1.6842	0.0227	1,963.7505

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5229	0.0284	2.4636	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8600e-003	0.0000	4.1330
Energy	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997
Mobile	0.3879	1.5784	3.7749	0.0133	1.5430	9.3400e-003	1.5524	0.4138	8.6900e-003	0.4224	0.0000	1,238.9576	1,238.9576	0.0586	0.0000	1,240.4228
Waste						0.0000	0.0000		0.0000	0.0000	31.7497	0.0000	31.7497	1.5744	0.0000	71.1087
Water						0.0000	0.0000		0.0000	0.0000	6.1225	24.0299	30.1524	0.0221	0.0135	34.7331
Total	1.9321	1.7893	6.3162	0.0146	1.5430	0.0378	1.5808	0.4138	0.0371	0.4509	37.8722	1,478.3677	1,516.2399	1.6630	0.0174	1,562.9973

	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
Percent Reduction	0.82	4.98	5.63	10.86	12.77	2.83	12.56	12.77	2.70	12.02	3.88	21.17	20.82	1.26	23.36	20.41

3.0 Construction Detail

Construction Phase

Heritage Ridge Residential Project - GHG - Santa Barbara County APCD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2021	2/28/2022	6	155	
2	Grading	Grading	1/1/2022	4/30/2022	6	103	
3	Site Utilities	Trenching	4/1/2022	6/30/2022	6	78	
4	Paving	Paving	6/1/2022	7/30/2022	6	52	
5	Building Construction	Building Construction	8/1/2022	8/31/2024	6	654	
6	Architectural Coating	Architectural Coating	8/1/2023	8/31/2024	6	341	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 257.5

Acres of Paving: 4.47

Residential Indoor: 672,300; Residential Outdoor: 224,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 13,032 (Architectural Coating – sqft)

OffRoad Equipment

Heritage Ridge Residential Project - GHG - Santa Barbara County APCD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Excavators	3	8.00	158	0.38
Site Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Trenchers	1	4.00	78	0.50
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Utilities	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	367.00	85.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

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					0.9485	0.0000	0.9485	0.5214	0.0000	0.5214	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2041	2.1261	1.1106	2.0000e-003		0.1073	0.1073		0.0988	0.0988	0.0000	175.5375	175.5375	0.0568	0.0000	176.9568
Total	0.2041	2.1261	1.1106	2.0000e-003	0.9485	0.1073	1.0558	0.5214	0.0988	0.6201	0.0000	175.5375	175.5375	0.0568	0.0000	176.9568

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3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8100e-003	2.2800e-003	0.0203	5.0000e-005	5.8400e-003	4.0000e-005	5.8700e-003	1.5500e-003	3.0000e-005	1.5800e-003	0.0000	4.6051	4.6051	1.4000e-004	0.0000	4.6087
Total	2.8100e-003	2.2800e-003	0.0203	5.0000e-005	5.8400e-003	4.0000e-005	5.8700e-003	1.5500e-003	3.0000e-005	1.5800e-003	0.0000	4.6051	4.6051	1.4000e-004	0.0000	4.6087

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					0.4268	0.0000	0.4268	0.2346	0.0000	0.2346	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2041	2.1261	1.1106	2.0000e-003		0.1073	0.1073		0.0988	0.0988	0.0000	175.5373	175.5373	0.0568	0.0000	176.9566
Total	0.2041	2.1261	1.1106	2.0000e-003	0.4268	0.1073	0.5342	0.2346	0.0988	0.3334	0.0000	175.5373	175.5373	0.0568	0.0000	176.9566

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3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8100e-003	2.2800e-003	0.0203	5.0000e-005	5.8400e-003	4.0000e-005	5.8700e-003	1.5500e-003	3.0000e-005	1.5800e-003	0.0000	4.6051	4.6051	1.4000e-004	0.0000	4.6087
Total	2.8100e-003	2.2800e-003	0.0203	5.0000e-005	5.8400e-003	4.0000e-005	5.8700e-003	1.5500e-003	3.0000e-005	1.5800e-003	0.0000	4.6051	4.6051	1.4000e-004	0.0000	4.6087

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4517	0.0000	0.4517	0.2483	0.0000	0.2483	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0793	0.8271	0.4924	9.5000e-004		0.0403	0.0403		0.0371	0.0371	0.0000	83.5985	83.5985	0.0270	0.0000	84.2744
Total	0.0793	0.8271	0.4924	9.5000e-004	0.4517	0.0403	0.4920	0.2483	0.0371	0.2854	0.0000	83.5985	83.5985	0.0270	0.0000	84.2744

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3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2500e-003	9.7000e-004	8.7900e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.1147	2.1147	6.0000e-005	0.0000	2.1162
Total	1.2500e-003	9.7000e-004	8.7900e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.1147	2.1147	6.0000e-005	0.0000	2.1162

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					0.2033	0.0000	0.2033	0.1117	0.0000	0.1117	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0793	0.8271	0.4924	9.5000e-004		0.0403	0.0403		0.0371	0.0371	0.0000	83.5984	83.5984	0.0270	0.0000	84.2743
Total	0.0793	0.8271	0.4924	9.5000e-004	0.2033	0.0403	0.2436	0.1117	0.0371	0.1488	0.0000	83.5984	83.5984	0.0270	0.0000	84.2743

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3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2500e-003	9.7000e-004	8.7900e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.1147	2.1147	6.0000e-005	0.0000	2.1162
Total	1.2500e-003	9.7000e-004	8.7900e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.1147	2.1147	6.0000e-005	0.0000	2.1162

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4467	0.0000	0.4467	0.1852	0.0000	0.1852	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1867	2.0004	1.4956	3.2000e-003		0.0842	0.0842		0.0775	0.0775	0.0000	280.8532	280.8532	0.0908	0.0000	283.1240
Total	0.1867	2.0004	1.4956	3.2000e-003	0.4467	0.0842	0.5309	0.1852	0.0775	0.2627	0.0000	280.8532	280.8532	0.0908	0.0000	283.1240

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3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8600e-003	2.2200e-003	0.0201	5.0000e-005	6.3600e-003	4.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	4.8403	4.8403	1.4000e-004	0.0000	4.8438
Total	2.8600e-003	2.2200e-003	0.0201	5.0000e-005	6.3600e-003	4.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	4.8403	4.8403	1.4000e-004	0.0000	4.8438

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					0.2010	0.0000	0.2010	0.0834	0.0000	0.0834	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1867	2.0004	1.4956	3.2000e-003		0.0842	0.0842		0.0775	0.0775	0.0000	280.8529	280.8529	0.0908	0.0000	283.1237
Total	0.1867	2.0004	1.4956	3.2000e-003	0.2010	0.0842	0.2852	0.0834	0.0775	0.1608	0.0000	280.8529	280.8529	0.0908	0.0000	283.1237

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3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8600e-003	2.2200e-003	0.0201	5.0000e-005	6.3600e-003	4.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	4.8403	4.8403	1.4000e-004	0.0000	4.8438
Total	2.8600e-003	2.2200e-003	0.0201	5.0000e-005	6.3600e-003	4.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	4.8403	4.8403	1.4000e-004	0.0000	4.8438

3.4 Site Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0436	0.4045	0.6061	9.1000e-004		0.0218	0.0218		0.0200	0.0200	0.0000	80.1715	80.1715	0.0259	0.0000	80.8197
Total	0.0436	0.4045	0.6061	9.1000e-004		0.0218	0.0218		0.0200	0.0200	0.0000	80.1715	80.1715	0.0259	0.0000	80.8197

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3.4 Site Utilities - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6200e-003	1.2600e-003	0.0114	3.0000e-005	3.6100e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7491	2.7491	8.0000e-005	0.0000	2.7511
Total	1.6200e-003	1.2600e-003	0.0114	3.0000e-005	3.6100e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7491	2.7491	8.0000e-005	0.0000	2.7511

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	0.0436	0.4045	0.6061	9.1000e-004		0.0218	0.0218		0.0200	0.0200	0.0000	80.1714	80.1714	0.0259	0.0000	80.8196
Total	0.0436	0.4045	0.6061	9.1000e-004		0.0218	0.0218		0.0200	0.0200	0.0000	80.1714	80.1714	0.0259	0.0000	80.8196

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3.4 Site Utilities - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6200e-003	1.2600e-003	0.0114	3.0000e-005	3.6100e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7491	2.7491	8.0000e-005	0.0000	2.7511
Total	1.6200e-003	1.2600e-003	0.0114	3.0000e-005	3.6100e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7491	2.7491	8.0000e-005	0.0000	2.7511

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0287	0.2893	0.3791	5.9000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	52.0717	52.0717	0.0168	0.0000	52.4927
Paving	5.8600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0345	0.2893	0.3791	5.9000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	52.0717	52.0717	0.0168	0.0000	52.4927

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3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0800e-003	8.4000e-004	7.6200e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4200e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8327	1.8327	5.0000e-005	0.0000	1.8340
Total	1.0800e-003	8.4000e-004	7.6200e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4200e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8327	1.8327	5.0000e-005	0.0000	1.8340

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	0.0287	0.2893	0.3791	5.9000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	52.0716	52.0716	0.0168	0.0000	52.4926
Paving	5.8600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0345	0.2893	0.3791	5.9000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	52.0716	52.0716	0.0168	0.0000	52.4926

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3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0800e-003	8.4000e-004	7.6200e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4200e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8327	1.8327	5.0000e-005	0.0000	1.8340
Total	1.0800e-003	8.4000e-004	7.6200e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4200e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8327	1.8327	5.0000e-005	0.0000	1.8340

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1126	1.0306	1.0800	1.7800e-003		0.0534	0.0534		0.0502	0.0502	0.0000	152.9387	152.9387	0.0366	0.0000	153.8547
Total	0.1126	1.0306	1.0800	1.7800e-003		0.0534	0.0534		0.0502	0.0502	0.0000	152.9387	152.9387	0.0366	0.0000	153.8547

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3.6 Building Construction - 2022

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	0.0172	0.5413	0.1785	1.3000e-003	0.0326	1.4900e-003	0.0341	9.4100e-003	1.4200e-003	0.0108	0.0000	128.6799	128.6799	0.0100	0.0000	128.9300
Worker	0.0672	0.0523	0.4731	1.2600e-003	0.1496	9.2000e-004	0.1505	0.0398	8.4000e-004	0.0406	0.0000	113.8260	113.8260	3.2800e-003	0.0000	113.9081
Total	0.0843	0.5936	0.6516	2.5600e-003	0.1822	2.4100e-003	0.1846	0.0492	2.2600e-003	0.0514	0.0000	242.5059	242.5059	0.0133	0.0000	242.8381

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	0.1126	1.0306	1.0800	1.7800e-003		0.0534	0.0534		0.0502	0.0502	0.0000	152.9385	152.9385	0.0366	0.0000	153.8545
Total	0.1126	1.0306	1.0800	1.7800e-003		0.0534	0.0534		0.0502	0.0502	0.0000	152.9385	152.9385	0.0366	0.0000	153.8545

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3.6 Building Construction - 2022

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	0.0172	0.5413	0.1785	1.3000e-003	0.0326	1.4900e-003	0.0341	9.4100e-003	1.4200e-003	0.0108	0.0000	128.6799	128.6799	0.0100	0.0000	128.9300
Worker	0.0672	0.0523	0.4731	1.2600e-003	0.1496	9.2000e-004	0.1505	0.0398	8.4000e-004	0.0406	0.0000	113.8260	113.8260	3.2800e-003	0.0000	113.9081
Total	0.0843	0.5936	0.6516	2.5600e-003	0.1822	2.4100e-003	0.1846	0.0492	2.2600e-003	0.0514	0.0000	242.5059	242.5059	0.0133	0.0000	242.8381

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2454	2.2440	2.5341	4.2000e-003		0.1092	0.1092		0.1027	0.1027	0.0000	361.6154	361.6154	0.0860	0.0000	363.7660
Total	0.2454	2.2440	2.5341	4.2000e-003		0.1092	0.1092		0.1027	0.1027	0.0000	361.6154	361.6154	0.0860	0.0000	363.7660

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3.6 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0316	1.0625	0.3800	3.0000e-003	0.0771	1.6900e-003	0.0788	0.0222	1.6100e-003	0.0239	0.0000	298.7252	298.7252	0.0227	0.0000	299.2924
Worker	0.1483	0.1107	1.0200	2.8700e-003	0.3536	2.1100e-003	0.3557	0.0940	1.9400e-003	0.0959	0.0000	258.9895	258.9895	6.9100e-003	0.0000	259.1623
Total	0.1798	1.1732	1.4000	5.8700e-003	0.4307	3.8000e-003	0.4345	0.1162	3.5500e-003	0.1198	0.0000	557.7147	557.7147	0.0296	0.0000	558.4547

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	0.2454	2.2440	2.5341	4.2000e-003		0.1092	0.1092		0.1027	0.1027	0.0000	361.6150	361.6150	0.0860	0.0000	363.7655
Total	0.2454	2.2440	2.5341	4.2000e-003		0.1092	0.1092		0.1027	0.1027	0.0000	361.6150	361.6150	0.0860	0.0000	363.7655

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3.6 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0316	1.0625	0.3800	3.0000e-003	0.0771	1.6900e-003	0.0788	0.0222	1.6100e-003	0.0239	0.0000	298.7252	298.7252	0.0227	0.0000	299.2924
Worker	0.1483	0.1107	1.0200	2.8700e-003	0.3536	2.1100e-003	0.3557	0.0940	1.9400e-003	0.0959	0.0000	258.9895	258.9895	6.9100e-003	0.0000	259.1623
Total	0.1798	1.1732	1.4000	5.8700e-003	0.4307	3.8000e-003	0.4345	0.1162	3.5500e-003	0.1198	0.0000	557.7147	557.7147	0.0296	0.0000	558.4547

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1545	1.4116	1.6975	2.8300e-003		0.0644	0.0644		0.0606	0.0606	0.0000	243.4416	243.4416	0.0576	0.0000	244.8807
Total	0.1545	1.4116	1.6975	2.8300e-003		0.0644	0.0644		0.0606	0.0606	0.0000	243.4416	243.4416	0.0576	0.0000	244.8807

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3.6 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0201	0.6982	0.2406	2.0100e-003	0.0519	1.0500e-003	0.0529	0.0150	1.0000e-003	0.0160	0.0000	199.8170	199.8170	0.0156	0.0000	200.2074
Worker	0.0935	0.0669	0.6297	1.8500e-003	0.2380	1.3800e-003	0.2394	0.0633	1.2700e-003	0.0645	0.0000	167.5670	167.5670	4.1500e-003	0.0000	167.6708
Total	0.1136	0.7651	0.8703	3.8600e-003	0.2899	2.4300e-003	0.2923	0.0782	2.2700e-003	0.0805	0.0000	367.3841	367.3841	0.0198	0.0000	367.8782

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	0.1545	1.4116	1.6975	2.8300e-003		0.0644	0.0644		0.0606	0.0606	0.0000	243.4413	243.4413	0.0576	0.0000	244.8804
Total	0.1545	1.4116	1.6975	2.8300e-003		0.0644	0.0644		0.0606	0.0606	0.0000	243.4413	243.4413	0.0576	0.0000	244.8804

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3.6 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0201	0.6982	0.2406	2.0100e-003	0.0519	1.0500e-003	0.0529	0.0150	1.0000e-003	0.0160	0.0000	199.8170	199.8170	0.0156	0.0000	200.2074
Worker	0.0935	0.0669	0.6297	1.8500e-003	0.2380	1.3800e-003	0.2394	0.0633	1.2700e-003	0.0645	0.0000	167.5670	167.5670	4.1500e-003	0.0000	167.6708
Total	0.1136	0.7651	0.8703	3.8600e-003	0.2899	2.4300e-003	0.2923	0.0782	2.2700e-003	0.0805	0.0000	367.3841	367.3841	0.0198	0.0000	367.8782

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5278					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.0854	0.1186	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.7238	16.7238	1.0000e-003	0.0000	16.7488
Total	0.5404	0.0854	0.1186	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.7238	16.7238	1.0000e-003	0.0000	16.7488

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3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0124	9.2400e-003	0.0852	2.4000e-004	0.0295	1.8000e-004	0.0297	7.8500e-003	1.6000e-004	8.0100e-003	0.0000	21.6300	21.6300	5.8000e-004	0.0000	21.6444
Total	0.0124	9.2400e-003	0.0852	2.4000e-004	0.0295	1.8000e-004	0.0297	7.8500e-003	1.6000e-004	8.0100e-003	0.0000	21.6300	21.6300	5.8000e-004	0.0000	21.6444

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	0.5278					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.0854	0.1186	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.7238	16.7238	1.0000e-003	0.0000	16.7488
Total	0.5404	0.0854	0.1186	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.7238	16.7238	1.0000e-003	0.0000	16.7488

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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	0.0124	9.2400e-003	0.0852	2.4000e-004	0.0295	1.8000e-004	0.0297	7.8500e-003	1.6000e-004	8.0100e-003	0.0000	21.6300	21.6300	5.8000e-004	0.0000	21.6444
Total	0.0124	9.2400e-003	0.0852	2.4000e-004	0.0295	1.8000e-004	0.0297	7.8500e-003	1.6000e-004	8.0100e-003	0.0000	21.6300	21.6300	5.8000e-004	0.0000	21.6444

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0190	0.1280	0.1901	3.1000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	26.8092	26.8092	1.5100e-003	0.0000	26.8469
Total	0.8651	0.1280	0.1901	3.1000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	26.8092	26.8092	1.5100e-003	0.0000	26.8469

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3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0186	0.0133	0.1252	3.7000e-004	0.0473	2.7000e-004	0.0476	0.0126	2.5000e-004	0.0128	0.0000	33.3308	33.3308	8.3000e-004	0.0000	33.3514
Total	0.0186	0.0133	0.1252	3.7000e-004	0.0473	2.7000e-004	0.0476	0.0126	2.5000e-004	0.0128	0.0000	33.3308	33.3308	8.3000e-004	0.0000	33.3514

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	0.8461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0190	0.1280	0.1901	3.1000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	26.8091	26.8091	1.5100e-003	0.0000	26.8469
Total	0.8651	0.1280	0.1901	3.1000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	26.8091	26.8091	1.5100e-003	0.0000	26.8469

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3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0186	0.0133	0.1252	3.7000e-004	0.0473	2.7000e-004	0.0476	0.0126	2.5000e-004	0.0128	0.0000	33.3308	33.3308	8.3000e-004	0.0000	33.3514
Total	0.0186	0.0133	0.1252	3.7000e-004	0.0473	2.7000e-004	0.0476	0.0126	2.5000e-004	0.0128	0.0000	33.3308	33.3308	8.3000e-004	0.0000	33.3514

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

- Increase Density
- Increase Transit Accessibility
- Integrate Below Market Rate Housing
- Improve Pedestrian Network
- Limit Parking Supply

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	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	0.3879	1.5784	3.7749	0.0133	1.5430	9.3400e-003	1.5524	0.4138	8.6900e-003	0.4224	0.0000	1,238.9576	1,238.9576	0.0586	0.0000	1,240.4228
Unmitigated	0.4038	1.6721	4.1518	0.0151	1.7689	0.0104	1.7794	0.4743	9.7200e-003	0.4840	0.0000	1,404.5607	1,404.5607	0.0647	0.0000	1,406.1788

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	792.50	895.00	758.75	1,761,031	1,536,144
Apartments Mid Rise	1,312.38	1,322.73	1213.02	2,914,159	2,542,015
City Park	100.00	45.50	33.48	181	158
Parking Lot	0.00	0.00	0.00		
Total	2,204.88	2,263.23	2,005.25	4,675,371	4,078,317

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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	6.03	6.03	6.03	25.60	9.90	64.50	100	0	0
Apartments Mid Rise	6.16	6.16	6.16	25.60	9.90	64.50	100	0	0
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.586995	0.024930	0.209264	0.108263	0.013258	0.004355	0.018072	0.021482	0.002798	0.001725	0.005977	0.002241	0.000641
Apartments Mid Rise	0.586995	0.024930	0.209264	0.108263	0.013258	0.004355	0.018072	0.021482	0.002798	0.001725	0.005977	0.002241	0.000641
City Park	0.586995	0.024930	0.209264	0.108263	0.013258	0.004355	0.018072	0.021482	0.002798	0.001725	0.005977	0.002241	0.000641
Parking Lot	0.586995	0.024930	0.209264	0.108263	0.013258	0.004355	0.018072	0.021482	0.002798	0.001725	0.005977	0.002241	0.000641

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	227.7553	227.7553	9.6500e-003	1.9300e-003	228.5720
Natural Gas Mitigated	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997
Natural Gas Unmitigated	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997

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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	1.59495e+006	8.6000e-003	0.0735	0.0313	4.7000e-004		5.9400e-003	5.9400e-003		5.9400e-003	5.9400e-003	0.0000	85.1125	85.1125	1.6300e-003	1.5600e-003	85.6183
Apartments Mid Rise	2.36548e+006	0.0128	0.1090	0.0464	7.0000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	126.2313	126.2313	2.4200e-003	2.3100e-003	126.9814
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0214	0.1825	0.0777	1.1700e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	1.59495e+006	8.6000e-003	0.0735	0.0313	4.7000e-004		5.9400e-003	5.9400e-003		5.9400e-003	5.9400e-003	0.0000	85.1125	85.1125	1.6300e-003	1.5600e-003	85.6183
Apartments Mid Rise	2.36548e+006	0.0128	0.1090	0.0464	7.0000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	126.2313	126.2313	2.4200e-003	2.3100e-003	126.9814
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0214	0.1825	0.0777	1.1700e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997

Heritage Ridge Residential Project - GHG - Santa Barbara County APCD Air District, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	520016	83.4692	3.5400e-003	7.1000e-004	83.7686
Apartments Mid Rise	822887	132.0839	5.6000e-003	1.1200e-003	132.5575
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	76020	12.2022	5.2000e-004	1.0000e-004	12.2459
Total		227.7553	9.6600e-003	1.9300e-003	228.5720

Heritage Ridge Residential Project - GHG - Santa Barbara County APCD Air District, Annual

5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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	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	1.5229	0.0284	2.4636	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8600e-003	0.0000	4.1330
Unmitigated	1.5229	0.0284	2.4636	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8600e-003	0.0000	4.1330

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	0.1374					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3115					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	0.0740	0.0284	2.4636	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8600e-003	0.0000	4.1330
Total	1.5229	0.0284	2.4636	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8600e-003	0.0000	4.1330

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1374					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3115					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	0.0740	0.0284	2.4636	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8600e-003	0.0000	4.1330
Total	1.5229	0.0284	2.4636	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8600e-003	0.0000	4.1330

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

Heritage Ridge Residential Project - GHG - Santa Barbara County APCD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	30.1524	0.0221	0.0135	34.7331
Unmitigated	35.4405	0.0275	0.0169	41.1583

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	8.14425 / 5.13442	12.8395	0.0103	6.3500e-003	14.9905
Apartments Mid Rise	13.4869 / 8.5026	21.2622	0.0171	0.0105	24.8242
City Park	0 / 2.38296	1.3387	6.0000e-005	1.0000e-005	1.3435
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		35.4405	0.0275	0.0169	41.1583

Heritage Ridge Residential Project - GHG - Santa Barbara County APCD Air District, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	6.5154 / 5.13442	10.8485	8.3000e-003	5.0900e-003	12.5714
Apartments Mid Rise	10.7895 / 8.5026	17.9651	0.0137	8.4200e-003	20.8182
City Park	0 / 2.38296	1.3387	6.0000e-005	1.0000e-005	1.3435
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		30.1524	0.0221	0.0135	34.7331

8.0 Waste Detail

8.1 Mitigation Measures Waste

Heritage Ridge Residential Project - GHG - Santa Barbara County APCD Air District, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	31.7497	1.5744	0.0000	71.1087
Unmitigated	31.7497	1.5744	0.0000	71.1087

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	57.5	11.9406	0.5921	0.0000	26.7431
Apartments Mid Rise	95.22	19.7737	0.9805	0.0000	44.2866
City Park	0.17	0.0353	1.7500e-003	0.0000	0.0791
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		31.7497	1.5744	0.0000	71.1087

Heritage Ridge Residential Project - GHG - Santa Barbara County APCD Air District, Annual

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	57.5	11.9406	0.5921	0.0000	26.7431
Apartments Mid Rise	95.22	19.7737	0.9805	0.0000	44.2866
City Park	0.17	0.0353	1.7500e-003	0.0000	0.0791
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		31.7497	1.5744	0.0000	71.1087

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Heritage Ridge Residential Project - GHG - Santa Barbara County APCD Air District, Annual

Equipment Type	Number
----------------	--------

11.0 Vegetation

VMT Calculations

	Project Size	Weekday	Saturday	Sunday	Annual Trips/size	Annual VMT/size	Trip Length
Res Low-Rise	125 DU	6.34	7.16	6.07	2,336	14,082	6.03 mi/trip/dwelling unit
Res Mid-Rise	207 DU	6.34	6.39	5.86	2,285	14,082	6.16 mi/trip/dwelling unit
City Park	2 acre	50.00	22.75	16.74	-	-	0.00 mi/trip/acre

Daily Project VMT:	12,809
Annual Project VMT:	4,675,285

**all trips are primary trips (no diverted or pass-by)

38.58 VMT per dwelling unit (all units)

- VMT per acre

N2O Operational GHG Emission Mobile Calculations

Project Code & Title: 14-01022, Heritage Ridge

Vehicle Population Breakdown*	
291394	Gasoline vehicles
14545	Diesel vehicles
95.2%	Gasoline vehicle %
4.8%	Diesel vehicle %

VMT per Vehicle Type	
4078317	Project VMT (CalEEMod output)
3884431	Gasoline vehicle VMT
193886	Diesel vehicle VMT

Gasoline Vehicles	
95.2%	Gasoline vehicle %
1.5784	Tons per year mobile NOX emissions (annual output in CalEEMod)
1.50	Gasoline vehicle tons per year NOX emissions
0.0813	Tons per year N2O emissions for gasoline vehicles**
0.0738	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
1.60	grams N2O per gallon of fuel for diesel vehicles**
127904.48	Diesel average miles per gallon*
0.00001	grams per mile N2O for diesel vehicles
2.4	grams per year N2O for diesel vehicles
0.0000024	Metric tons per year N2O emissions for diesel vehicles

CO2e Emissions from N2O	
0.0738	Metric tons per year from gasoline + diesel vehicles
298	GWP of N2O***
22.0	CO2e emissions per year from N2O emissions from gasoline + diesel vehicles

Sources
<p>*Vehicle population source: Source: EMFAC2021 (v1.0.0) Emissions Inventory Region Type: Air District Region: Santa Barbara County APCD Calendar Year: 2030 Season: Annual Vehicle Classification: EMFAC2011 Categories</p> <p>**Methodology source: EMFAC2017 Volume III - Technical Documentation https://www.arb.ca.gov/msei/emfac2011-faq.htm</p> <p>***GWP source: Intergovernmental Panel on Climate Change (IPCC). 2007. AR4 Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.</p>

Heritage Ridge Residential Project

Last Updated: 04/06/2021

Populate one of the following tables (Leave the other blank):

Annual VMT	OR	Daily Vehicle Trips
Annual VMT: 4,675,285		Daily Vehicle Trips: Average Trip Distance:

Fleet Class	Fleet Mix	Fuel Economy (MPG) [1]	
Light Duty Auto (LDA)	0.572071	Passenger Vehicles	24.4
Light Duty Truck 1 (LDT1)	0.027190	Light-Med Duty Trucks	17.9
Light Duty Truck 2 (LDT2)	0.206810	Heavy Trucks/Other	7.5
Medium Duty Vehicle (MDV)	0.117824	Motorcycles	44
Light Heavy Duty 1 (LHD1)	0.018361		
Light Heavy Duty 2 (LHD2)	0.005136		
Medium Heavy Duty (MHD)	0.017629		
Heavy Heavy Duty (HHD)	0.020081		
Other Bus (OBUS)	0.002790		
Urban Bus (UBUS)	0.002084		
Motorcycle (MCY)	0.006580		
School Bus (SBUS)	0.002569		
Motorhome (MH)	0.000873		

Fleet Mix					
Vehicle Type	Percent	Fuel Type	Annual VMT:		Fuel Consumption
			VMT	Vehicle Trips: VMT	(Gallons)
Passenger Vehicles	57.21%	<i>Gasoline</i>	2674595	0.00	109614.55
Light-Medium Duty Trucks	35.18%	<i>Gasoline</i>	1644877	0.00	91892.60
Heavy Trucks/Other	6.95%	<i>Diesel</i>	325040	0.00	43338.65
Motorcycle	0.66%	<i>Gasoline</i>	30763	0.00	699.17

Total Gasoline Consumption (gallons)	202206.31
Total Diesel Consumption (gallons)	43338.65

Sources:

[1] United States Department of Transportation, Bureau of Transportation Statistics. 2019. National Transportation Statistics 2019. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.

Heritage Ridge Residential Project

Last Updated: 02/25/2021

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors [1]:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529
--------------	--------	----------------------	--------

Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT						
Construction Equipment	#	Hours per		Load Factor	Construction Phase	Fuel Used (gallons)
		Day	Horsepower			
Rubber Tired Dozers	3	8	247	0.4	Site Preparation Phase	19,427.58
Tractors/Loaders/Backhoes	4	8	97	0.37	Site Preparation Phase	10,460.88
Excavators	2	8	158	0.38	Grading Phase	5,230.18
Graders	1	8	187	0.41	Grading Phase	3,339.42
Rubber Tired Dozers	1	8	247	0.4	Grading Phase	4,303.31
Scrapers	2	8	367	0.48	Grading Phase	15,345.58
Tractors/Loaders/Backhoes	2	8	97	0.37	Grading Phase	3,475.71
Excavators	3	8	158	0.38	Site Utilities Phase	5,941.08
Tractors/Loaders/Backhoes	2	8	97	0.37	Site Utilities Phase	2,632.09
Trenchers	1	4	78	0.5	Site Utilities Phase	715.04
Pavers	2	8	130	0.42	Paving Phase	2,401.24
Paving Equipment	2	8	132	0.36	Paving Phase	2,089.87
Rollers	2	8	80	0.38	Paving Phase	1,486.31
Cranes	1	7	231	0.29	Building Construction	8,452.42
Forklifts	3	8	89	0.2	Building Construction	8,560.49
Generator Sets	1	8	84	0.74	Building Construction	9,964.80
Tractors/Loaders/Backhoes	3	7	97	0.37	Building Construction	15,102.89
Welders	1	8	46	0.45	Building Construction	3,318.39
Air Compressors	1	6	78	0.48	Architectural Coating Phase	8,633.32
Total Fuel Used						130,880.62
						(Gallons)

Construction Phase	Days of Operation
Site Preparation Phase	155
Grading Phase	103
Site Utilities Phase	78
Paving Phase	52
Building Construction	654
Architectural Coating Phase	341
Total Days	1383

WORKER TRIPS				
Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Site Preparation Phase	24.4	18	8.3	949.06
Grading Phase	24.4	20	8.3	700.74
Site Utilities Phase	24.4	15	8.3	397.99
Paving Phase	24.4	15	8.3	265.33
Building Construction	24.4	367	8.3	81645.47
Architectural Coating Phase	24.4	73	8.3	8467.70
Fuel				92,426.28

HAULING AND VENDOR TRIPS

Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
HAULING TRIPS				
Site Preparation Phase	7.5	0	20.0	0.00
Grading Phase	7.5	0	20.0	0.00
Site Utilities Phase	7.5	0	20.0	0.00
Paving Phase	7.5	0	20.0	0.00
Building Construction	7.5	0	20.0	0.00
Architectural Coating Phase	7.5	0	20.0	0.00
Fuel				-
VENDOR TRIPS				
Site Preparation Phase	7.5	0	6.4	0.00
Grading Phase	7.5	0	6.4	0.00
Site Utilities Phase	7.5	0	6.4	0.00
Paving Phase	7.5	0	6.4	0.00
Building Construction	7.5	85	6.4	47436.80
Architectural Coating Phase	7.5	0	6.4	0.00
Fuel				47,436.80

Total Gasoline Consumption (gallons)	92,426.28
Total Diesel Consumption (gallons)	178,317.42

Sources:

[1] United States Environmental Protection Agency. 2018. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES2014b*. July 2018. Available at: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100UXEN.pdf>.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2019. *National Transportation Statistics 2019*. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.

Energy Unit Conversion Sheet

Gasoline

Gallons (gal.)

202,206.31

Barrels (bbl.)

Btu

202206.31 gal.
 202.21 Thousand gallons
 0.20 Million gallons
 4814.44 bbl.
 4.81 Thousand bbl.
 0.00 Million bbl.
 238770.62 U.S. Therms
 22199459630.81 British thermal units (Btu)
 22199.46 Million Btu (MMBtu)

0.00 gal.
 0.00 Thousand gallons
 0.00 Million gallons
 0.00 bbl.
 0.00 Thousand bbl.
 0.00 Million bbl.
 0.00 U.S. Therms
 0.00 British thermal units (Btu)
 0.00 Million Btu (MMBtu)

0.00 gal.
 0.00 Thousand gallons
 0.00 Million gallons
 0.00 bbl.
 0.00 Thousand bbl.
 0.00 Million bbl.
 0.00 U.S. Therms
 0.00 British thermal units (Btu)
 0.00 Million Btu (MMBtu)

Diesel

Gallons (gal.)

43,338.65

Barrels (bbl.)

-

Btu

43,338.65 gal.
 43.34 Thousand gallons
 0.04 Million gallons
 1,031.87 bbl.
 1.03 Thousand bbl.
 0.00 Million bbl.
 59,413.86 U.S. Therms
 5,523,944,329.00 British thermal units (Btu)
 5,523.94 Million Btu (MMBtu)

- gal.
 - Thousand gallons
 - Million gallons
 - bbl.
 - Thousand bbl.
 - Million bbl.
 - U.S. Therms
 - British thermal units (Btu)
 - Million Btu (MMBtu)

- gal.
 - Thousand gallons
 - Million gallons
 - bbl.
 - Thousand bbl.
 - Million bbl.
 - U.S. Therms
 - British thermal units (Btu)
 - Million Btu (MMBtu)

Electricity

Kilowatt-Hours (kWh)

1,418,923.00

U.S. Therm

Btu

1,418,923.00 Kilowatt-Hours
 1,418.92 Megawatt-Hours
 1.42 Gigawatt-Hours
 52,072.25 U.S. Therms
 4,841,365,276.00 British thermal units (Btu)
 4,841.37 Million Btu (MMBtu)

- Kilowatt-Hours
 - Megawatt-Hours
 - Gigawatt-Hours
 - U.S. Therms
 - British thermal units (Btu)
 - Million Btu (MMBtu)

- Kilowatt-Hours
 - Megawatt-Hours
 - Gigawatt-Hours
 - U.S. Therms
 - British thermal units (Btu)
 - Million Btu (MMBtu)

Natural Gas

Thousand Cubic Feet (Mcf)	U.S. Therm	Btu	3,960,430,000.00
<ul style="list-style-type: none"> - Cubic Feet (cf) - Thousand Cubic Feet (Mcf) - Million Cubic Feet (MMcf) - U.S. Therms - British thermal units (Btu) - Million Btu (MMBtu) 	<ul style="list-style-type: none"> - Cubic Feet (cf) - Thousand Cubic Feet (Mcf) - Million Cubic Feet (MMcf) - U.S. Therms - British thermal units (Btu) - Million Btu (MMBtu) 	<ul style="list-style-type: none"> - Cubic Feet (cf) - Thousand Cubic Feet (Mcf) - Million Cubic Feet (MMcf) - U.S. Therms - British thermal units (Btu) - Million Btu (MMBtu) 	<ul style="list-style-type: none"> 3,819,122.47 Cubic Feet (cf) 3,819.12 Thousand Cubic Feet (Mcf) 3.82 Million Cubic Feet (MMcf) 42,597.18 U.S. Therms 3,960,430,000.00 British thermal units (Btu) 3,960.43 Million Btu (MMBtu)

Sources:

U.S. Energy Information Administration (EIA). May 2017. "Frequently Asked Questions: What are Ccf, Mcf, Btu, and therms? How do I convert natural gas prices in dollars per Ccf or Mcf to dollars per Btu or therm?" <https://www.eia.gov/tools/faqs/faq.php?id=45&t=8>. (accessed February 5, 2018).

Schremp, Gordon. 2017. Senior Fuels Specialist, California Energy Commission. Personal communication via phone and email regarding fuel consumption in California by County and by source with Lance Park, Associate Planner, Rincon Consultants, Inc. August 22, 2017.

Appendix C

Health Risk Assessment



City of Goleta

Heritage Ridge Residential Project

Health Risk Assessment

January 2016



**Heritage Ridge
Residential Project**

Health Risk Assessment

Prepared for:

City of Goleta
130 Cremona Drive, Suite B
Goleta, CA 93117

Prepared with the assistance of:

Rincon Consultants, Inc.
180 N. Ashwood Avenue
Ventura, CA 93003

January 2016

This report is printed on 50% recycled paper.

HEALTH RISK ASSESSMENT

Heritage Ridge Residential Project

City of Goleta

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HEALTH RISK ASSESSMENT

Heritage Ridge Residential Project

City of Goleta

This health risk assessment analyzes the possible health effects associated with existing air pollution sources at the proposed Heritage Ridge Residential Project (the “Project”) in Goleta, CA. The report has been prepared under contract to the City of Goleta, and is intended to be used as information in the decision making process regarding land use permits for this site and for environmental documentation under the California Environmental Quality Act.

SUMMARY

The Project involves 360 residential units (132 senior housing units and 228 workforce homes) and associated amenities on a 17.36 acre property within the Inland Area of the City of Goleta (City). The Project site has a City General Plan/Coastal Land Use Plan (GP/CLUP) land use designation of Medium-Density Residential (R-MD) and a corresponding zoning of Design Residential (DR-20). The Project site is located along the south side of U.S. Highway 101 (U.S. 101) and the Union Pacific Railroad (UPRR) and the California Air Resources Board (CARB) currently recommends that local agencies avoid siting new sensitive land uses within 500 feet of a freeway (CARB, *Air Quality and Land Use Handbook*, April 2005). In addition, nearby businesses may emit additional hazardous air pollutants. These emissions are not expected to individually cause a risk, but may result in a cumulative risk to proposed on-site residential units when considered in combination with the TACs associated with the freeway and railroad operations. Based on these nearby emissions sources, the primary concern is the effect of diesel exhaust particulates, a toxic air contaminant, on sensitive uses. The primary sources of diesel exhaust particulates are heavy-duty trucks traveling on U.S. 101 and locomotives traveling along the UPRR rail line. This analysis also examined five other vehicle exhaust pollutants of concern that are emitted from both diesel and gasoline-fueled vehicles: acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene.

Cancer risk is expressed as the maximum number of new cases of cancer projected to occur in a population of one million people due to exposure to the cancer-causing substance, typically over a specific exposure duration, such as the average residency (50-percentile) of 9 years or high-end residency (95-percentile) of 30 years. For example, a cancer risk of one in one million means that in a population of one million people, not more than one additional person would be expected to develop cancer as the result of the exposure to the substance causing that risk.

An analysis using the U.S. Environmental Protection Agency’s (USEPA) AERMOD dispersion model and CARB Hotspots Analysis and Reporting Program (HARP) risk analysis tool determined that the proposed residential units on the Project site would be exposed to a high end (95-percentile) 30-year excess cancer risk of between 42 and 59 in one million, which exceeds the Santa Barbara County Air Pollution Control District (SBCAPCD) recommended health risk criteria of ten excess cases of cancer in one million individuals (1.0E-05) (SBCAPCD, August 2015). Thirty years is the exposure duration scenario recommended by the SBCAPCD in the *Modeling Guidelines for Health Risk Assessments* (August 2015). The health effects risk level for the average (50-percentile) residency of 9 years for an adult would be between 12 and 18 in one million, and for that of a child (9-years) would be between 18 and 26 in one million. Both of which also exceed the SBCAPCD health risk criteria. This analysis is based on outdoor air concentrations and assumes that interior concentrations would be the same, for a conservative analysis.



Potential acute and chronic health risks for on-site residential units were also determined to be lower than SBCAPCD health risk criteria.

USEPA activity factors show that people in a residential environment spend only a small portion of the day on an average basis outdoors. Therefore, a mitigation measure is recommended that includes forced air ventilation with filter screens with a MERV 13 rating on outside air intake ducts to be provided for all residential units on the Project site. MERV 13 filter screens are capable of removing at least 90% of the particulate matter including fine particulate matter. This would provide a clean interior environment and reduce the future residents' exposure to toxic air contaminants associated with U.S. 101 and the UPRR to below the ten in one million level for the average (50th percentile) residency of 9 years for an adult and child and the high-end estimate for residency time (95th percentile) of 30 years, which is the exposure duration recommended by SBCAPCD for HRAs.

PROJECT SITE AND DESCRIPTION

The Project site is currently vacant and lies north of Camino Vista Road and east of S. Los Carneros Road within the City of Goleta, in Santa Barbara County. The site is comprised of lots 1 through 13 of Tract No. 13646 in the City of Goleta, California, as per map recorded in book 150, pages 92 through 98 in the Office of the County Recorder of Santa Barbara County. These lots are also identified with assessor's parcel numbers (APN) 073-060-031 through -043. The Project site is bounded on its north by the Union Pacific Railroad (approximately 50 feet north of the Project site) and U.S. 101 (approximately 250 feet north of the Project site), on its east by existing business park development, to the west by a vacant site, and on its south by Camino Vista and residential uses.

The Project would develop the site with 360 residential units (132 senior housing units and 228 workforce homes) and associated amenities on a 17.36 acre property in the City of Goleta. The nearest habitable unit would be approximately 280 feet south of U.S. 101 and approximately 80 feet south of the UPRR.

AIR QUALITY BACKGROUND

Local Climate and Meteorology

The Project area is located within the South Central Coast Air Basin (SCCAB) which includes all of San Luis Obispo, Santa Barbara, and Ventura counties. The climate of the SCCAB is strongly influenced by its proximity to the Pacific Ocean and the location of the semi-permanent high-pressure cell in the northeastern Pacific. With a Mediterranean-type climate, the Project area is characterized by warm, dry summers and cool winters with occasional rainy periods. Annual precipitation averages 16 inches, with most rainfall between November and March. Average monthly temperatures range from a high of 79 degrees Fahrenheit (°F) in August to a low of 40°F in December.

Air pollutant emissions within the SCCAB are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or



off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment such as when high winds suspend fine dust particles.

Air Pollutants of Concern

The Santa Barbara Air Pollution Control District (SBCAPCD) monitors air pollutant levels to assure that air quality standards are met, and if they are not met, to also develop strategies to meet the standards. The primary air pollutants of concern in Santa Barbara County include:

Ozone. Ozone is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO_x) and reactive organic compounds (ROC)¹. Nitrogen oxides are formed during the combustion of fuels, while reactive organic gases are formed during combustion and evaporation of organic solvents. Because ozone requires sunlight to form, it occurs in serious concentrations primarily between the months of May and October. Ozone is a pungent, colorless toxic gas with direct health effects on humans, including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, persons with respiratory disorders, and people who exercise strenuously outdoors.

Suspended Particulates. PM₁₀ is small particulate matter measuring no more than 10 microns in diameter, while PM_{2.5} is fine particulate matter measuring no more than 2.5 microns in diameter. Both PM₁₀ and PM_{2.5} are comprised mostly of dust particles, nitrates, and sulfates. The characteristics, sources, and potential health effects associated with the small particulates (those between 2.5 and 10 microns in diameter) and fine particulates (PM_{2.5}) can be very different. The small particulates generally come from windblown dust and dust kicked up from mobile sources. The fine particulates are generally associated with combustion processes as well as being formed in the atmosphere as a secondary pollutant through chemical reactions. PM₁₀ is a by-product of fuel combustion and wind erosion of soil and unpaved roads, and is directly emitted into the atmosphere through these processes. PM₁₀ is also created in the atmosphere through chemical reactions. Fine particulate matter poses a serious health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the fine particulate matter that is inhaled into the lungs remains there, which can cause permanent lung damage. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

An important fraction of the particulate matter emission inventory is that formed by diesel engine fuel combustion. Particulates in diesel emissions are very small and readily respirable. The particles have hundreds of chemicals adsorbed onto their surfaces, including many known or suspected mutagens and carcinogens. The California Office of Environmental Health Hazard Assessment (OEHHA) reviewed and evaluated the potential for diesel exhaust to affect human health, and the associated scientific uncertainties (California EPA, ARB, April 1998). Based on the available scientific evidence, it was determined that a level of diesel PM exposure below which no carcinogenic effects are anticipated has not been identified. The Scientific Review Panel that approved the OEHHA report determined that based on studies to date that $3 \times 10^{-4} (\mu\text{g}/\text{m}^3)^{-1}$ is a reasonable estimate of the unit risk for diesel PM. This means that a person exposed to a diesel PM concentration of $1 \mu\text{g}/\text{m}^3$ continuously over the course of a lifetime has a 3 per 10,000 chance (or 300 in one million chance) of contracting cancer due to this exposure. Based on an estimated Year 2000 statewide average concentration of $1.26 \mu\text{g}/\text{m}^3$ for indoor and outdoor ambient air, about 380 excess cancers per one million population could be expected if

¹ Reactive organic compounds (ROC) are sometimes referred to as reactive organic gases (ROG)



diesel PM concentrations remained the same (CARB, October 2000). Therefore, these particulate emissions have been determined by CARB to be a toxic air contaminant (TAC).

Compared to other air toxics CARB has identified and controlled, diesel PM emissions are estimated to be responsible for about 70% of the total ambient air toxics risk. In addition to these general risks, diesel PM can also be responsible for elevated localized or near-source exposures (“hot-spots”). Depending on the activity and nearness to receptors, these potential risks can range from small to 1,500 per million or more (CARB, October 2000). Risk characterization scenarios have been conducted by the ARB staff to determine the potential excess cancer risks involved due to the location of individuals near to various sources of diesel engine emissions, ranging from school buses to high volume freeways. The purpose of the risk characterization was to estimate, through air dispersion modeling, the cancer risk associated with typical diesel-fueled engine or vehicle activities based on modeled PM concentration at the point of maximum impact (PMI). The study included various sources of diesel PM emissions, including idling school buses, truck stops, low and high volume freeways, and other sources. High volume freeways were estimated to cause 800-1,700 per million potential excess cancers, while low volume freeways (similar to U.S. 101 at the site) were estimated to cause about 100 – 200 per million potential excess cancers. Please see further discussion concerning risk levels below in the Analysis Methodology section.

Besides diesel PM, several other pollutants are emitted by vehicle exhausts that are a public health concern. The USEPA has identified six pollutants of highest priority: diesel particulate matter (DPM), acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene. The latter five pollutants are part of the total organic gases emitted by vehicles both diesel and gasoline fueled. The following is a brief description of these chemicals:

- Acrolein. Acrolein is the simplest unsaturated aldehyde. It is a widely produced substance with a piercing, disagreeable, acrid smell similar to that of burning fat. Acrolein is an unstable toxic substance that can burn the nose and throat and is a severe pulmonary irritant. It is a flammable and poisonous substance prepared industrially by the oxidation of propene. Small amounts of acrolein are formed and enter the air when trees, tobacco, other plants, gasoline, and oil are burned.
- Acetaldehyde. Acetaldehyde, sometimes known as ethanal, is an organic chemical compound used as an intermediate in the production of acetic acid, certain esters, and a number of other chemicals. It is a flammable liquid with a fruity smell. Acetaldehyde is toxic when applied externally for prolonged periods, an irritant, and a probable carcinogen.
- Formaldehyde. Formaldehyde is an organic chemical compound containing a terminal carbonyl group. It is produced in the atmosphere by the action of sunlight and oxygen on atmospheric methane and other hydrocarbons; thus, it becomes part of smog. Additionally, formaldehyde is an intermediate in the oxidation (or combustion) of methane as well as other carbon compounds including automobile exhaust. Formaldehyde is a flammable substance that can be toxic, allergenic, and a carcinogen. It is naturally made in small amounts in human bodies and is found in small amounts in household sources, such as fiberglass, carpets, permanent press fabrics, paper products, and some household cleaners.
- Benzene. Benzene, or benzol, is an organic chemical compound and a known carcinogen. It is a colorless and highly flammable liquid with a sweet smell and a relatively high melting point. Benzene is an important industrial solvent and precursor in the production of drugs, plastics,



synthetic rubber, and dyes. Benzene is a natural constituent of crude oil, and may be synthesized from other compounds present in petroleum, and is found in gasoline, and cigarette smoke. Natural sources of benzene include emissions from volcanoes and forest fires.

- **1,3-Butadiene.** 1,3-Butadiene is an important industrial chemical used in the production of synthetic rubber (about 75% of the manufactured 1,3-butadiene), which is then used primarily in the production of automobile tires. It is a colorless gas with a mild gasoline-like odor and small amounts are contained in gasoline and exhausted into the air after the combustion process. It is a carcinogen and highly irritative and flammable.

AIR QUALITY REGULATION

The federal and state governments have established ambient air quality standards for the protection of public health. The USEPA is the federal agency designated to administer air quality regulation, while the California Air Resources Board (ARB) is the state equivalent in the California Environmental Protection Agency. County-level Air Pollution Control Districts (APCDs) provide local management of air quality. The ARB has established air quality standards and is responsible for the control of mobile emission sources, while the local APCDs are responsible for enforcing standards and regulating stationary sources. The ARB has established 15 air basins statewide.

The USEPA has set primary national ambient air quality standards (NAAQS) for ozone, CO, nitrogen dioxide (NO₂), sulfur dioxide (SO₂), PM₁₀, PM_{2.5}, and lead (Pb). Primary standards are those levels of air quality deemed necessary, with an adequate margin of safety, to protect public health. In addition, the State of California has established health-based ambient air quality standards for these and other pollutants, some of which are more stringent than the federal standards. Table 1 lists the current federal and state standards for regulated pollutants.

Goleta is located in the Santa Barbara County portion of the Air Basin. The SBCAPCD is the designated air quality control agency in the Air Basin. Santa Barbara County is classified as being in “attainment” or as “non-attainment.” Santa Barbara County is in non-attainment for the state eight-hour ozone standard and the state standard for PM₁₀. The County is unclassified for the state PM_{2.5} standard and the federal PM₁₀ standard. The County is in attainment for all other standards.

Non-attainment status within Santa Barbara County is a result of several factors, primarily the natural meteorological conditions that limit the dispersion and diffusion of pollutants (surface and subsidence inversions), the limited capacity of the local airshed to eliminate pollutants from the air, and the number, type, and density of emission sources within the air basin. The potential health effects of pollutants for which the County is in nonattainment are described above.

CURRENT AIR QUALITY

The SCCAB monitoring station located nearest to the Project site is the Goleta-Fairview station, located at 380 N. Fairview Avenue in Goleta. Table 2 indicates the number of days each of the standards has been exceeded at this station in each of the last three years for which data is available.



Table 1
Current Federal and State Ambient Air Quality Standards

Pollutant	Federal Standard	California Standard
Ozone	0.070 ppm (8-hr avg)	0.07 ppm (8-hr avg) 0.09 ppm (1-hr avg)
Carbon Monoxide	9.0 ppm (8-hr avg) 35.0 ppm (1-hr avg)	9.0 ppm (8-hr avg) 20.0 ppm (1-hr avg)
Nitrogen Dioxide	0.100 ppm (1-hr avg) 0.053 ppm (annual avg)	0.18 ppm (1-hr avg) 0.030 ppm (annual avg)
Sulfur Dioxide	0.075 ppm (1-hr avg)	0.25 ppm (1-hr avg) 0.04 ppm (24-hr avg)
Lead	1.5 µg/m ³ (calendar quarter)	0.15 µg/m ³ (3-month avg)
Particulate Matter (PM ₁₀)	150 µg/m ³ (24-hr avg)	20 µg/m ³ (annual avg) 50 µg/m ³ (24-hr avg)
Particulate Matter (PM _{2.5})	12 µg/m ³ (annual avg) 35 µg/m ³ (24-hr avg)	12 µg/m ³ (annual avg)

ppm= parts per million

µg/m³ = micrograms per cubic meter

Sources: California Air Resources Board, October 1, 2015. <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>; EPA Particulate Matter (PM) Regulatory Actions, October 26, 2015. <http://www.epa.gov/pm/actions.html>.

Table 2
Ambient Air Quality Data

Pollutant	2012	2013	2014
Ozone, ppm - Worst Hour	0.065	0.075	0.096
Number of days of State exceedances (>0.09 ppm)	0	0	1
Ozone, ppm – Worst 8 Hours	0.056	0.065	0.081
Number of days of State exceedances (>0.07 ppm)	0	0	3
Number of days of Federal exceedances (>0.075 ppm)	0	0	2
Carbon Monoxide, ppm - Worst 8 Hours	0.65	*	*
Number of days of State/Federal exceedances (>9.0 ppm)	0	0	0
Nitrogen Dioxide, ppm - Worst Hour	0.041	0.013	0.038
Number of days of State exceedances (>0.18 ppm)	0	0	0
Particulate Matter <10 microns, µg/m ³ Worst 24 Hours	48.0	44.0	45.3
Number of samples of State exceedances (>50 µg/m ³)	0	0	0
Number of samples of Federal exceedances (>150 µg/m ³)	0	0	0
Particulate Matter <2.5 microns, µg/m ³ Worst 24 Hours	29.0	20.5	24.3
Number of days Federal exceedances	*	*	0

* There was insufficient (or no) data available to determine the value.

Source: ARB Air Quality Data Statistics, Goleta-Fairview Station. Top four Summary. Accessed November 2015. Retrieved from: <http://www.arb.ca.gov/adam/topfour/topfour1.php>



ANALYSIS METHODOLOGY

Mobile source air toxics emissions associated with vehicle traffic on U.S. 101 and the UPRR were estimated based on the methodology developed by the UC Davis-Caltrans Air Quality Project *Estimating Mobile Source Air Toxics Emissions: A Step-By-Step Project Analysis Methodology* (December 2006). This spreadsheet application was designed to generate the total amount of the above six pollutants of concern based on EMFAC2014 total organic gases (TOG) emission factors, particulate emission factors from EMFAC2014, and speciation from USEPA Motor Vehicle Emission Simulator (MOVES2014a). These emission factors are then multiplied against traffic volumes for the segments of concern to obtain total emissions from U.S. 101, which for this study, were based on grams per mile. Emissions from the UPRR are estimated based on freight train volumes from the Westar Mixed-Use Village Project Final EIR (located approximately one mile west of the Project site) (October, 2011) and passenger train volumes from the Amtrak Surfliner schedule (accessed November 2015), emission factors from the Southern California International Gateway Project Final EIR (May 2013; Appendix C1), and speciation factors from the Eastern Research Group, *Documentation for Locomotive Component of the National Emissions Inventory Methodology* (May 2011). Spreadsheet outputs adapted from the UC Davis-Caltrans MSAT model and composite emission rates, as well as estimated emissions from the UPRR and nearby businesses that are known to emit hazardous air pollutants are contained in the Appendix to this report.

For highway emissions, emission factors were reviewed for 60 and 65 miles per hour, and 65 miles per hour was determined to be the worst reasonable case speed (i.e., highest emission levels); therefore emissions were based on an average speed of 65 miles per hour as a conservative approach. Traffic volumes for U.S. 101 were obtained from Caltrans *2014 Annual Average Daily Traffic Volumes*. According to the Caltrans traffic data (2014) for U.S. 101, the Annual Average Daily Traffic (AADT) volume at South Los Carneros Road (immediately east of the Project site) is 65,800 vehicles. Truck traffic (3 axles or greater) is estimated to comprise 9% of the AADT based on Caltrans *2014 Annual Average Daily Truck Traffic*. The estimate of current truck travel is based on verified counts made by Caltrans in 2014 at other nearby post miles. The nearest verified counts of truck travel was made in 2014 at the junction of State Route 225, approximately seven miles east of the Project site.

Up to 12 freight trains and up to nine passenger trains would pass the Project site along the UPRR corridor per day. UPRR locomotive emissions were based on per-train emission factors from the Eastern Research Group's *Documentation for Locomotive Component of the National Emissions Inventory Methodology* (May 2011).

In addition, nearby businesses may emit additional hazardous air pollutants. These emissions are not expected to individually cause a risk; however, these emissions could result in a cumulative risk to proposed on-site residential units when considered in combination with the TACs associated with the freeway and railroad operations. SBCAPCD was contacted for a list of permitted businesses within 2,000 feet of the Project site boundary. The available emissions and location information – excluding businesses for which emissions data was not collected or was otherwise unavailable from SBCAPCD – were included in the local emissions estimate.

The AMS/EPA air dispersion model, AERMOD was utilized to calculate the concentrations of source emissions at receptor locations. Specific meteorology and terrain for the site was input to the model using the nearest available meteorological data set at the Santa Barbara Airport. U.S. 101 and UPRR vary in elevation between approximately 35 feet and 45 feet msl along the length of the approximately 1-mile segment. The nearest receptors on the Project site are located at an elevation of approximately 38



feet. These differences in topography are considered by the dispersion model. The freeway and rail line were each modeled as a series of volume sources in AERMOD. AERMOD provides X/Q ($CHI/Q = \text{chi}/q = \chi/q$) values, which is the concentration estimated by the air quality model based on an emission rate of one gram per second.

For risk assessments conducted under the Air Toxics “Hot Spots” Information and Assessment Act (AB 2588, Connelly, Statutes of 1987; Health and Safety Code Section 44300 et seq.) a weighting factor that reflects early life exposure is applied to all carcinogens regardless of purported mechanism of action. However, for this assessment, the HRA relied upon USEPA guidance, *Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens*, relating to the use of early life exposure adjustment factors (2005) whereby adjustment factors are only considered when carcinogens act “through the mutagenic mode of action.” The USEPA has identified 19 compounds that elicit a mutagenic mode of action for carcinogenesis. None of the gaseous compounds considered in the HRA elicit a mutagenic mode of action; therefore, early life exposure adjustments were not considered in this analysis. For diesel particulates, polycyclic aromatic hydrocarbons (PAHs) and their derivatives, which are known to exhibit a mutagenic mode of action, comprise less than 1% of the exhaust particulate mass. To date, the USEPA reports that whole diesel engine exhaust has not been shown to elicit a mutagenic mode of action. Therefore, HARP On-Ramp was used to import air dispersion data from AERMOD into the HARP (ver. 1.4f) program for risk analysis because the risk calculation the model performs does not include the weighting factor that reflects early life exposure adjustments. HARP 2 incorporates the early life exposure adjustments presented in OEHHA’s 2015 *Air Toxics Hotspots Program Guidance Manual for Preparation of Health Risk Assessments* and, therefore, was not appropriate for calculating risk for this HRA.

HARP uses the X/Q values to estimate actual concentration by multiplying this value against the emission rate in grams per second. The carcinogenic health risk is then calculated by the HARP model based on the emission concentration at each sensitive or grid receptor using the toxicity data contained in the HARP database. The chronic health risk value is calculated by the HARP model using the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA) method of dividing the annual average concentration by the chronic inhalation reference exposure level (REL) (HARP, May 2012).

Three exposure pathways are considered for health effects: ingestion, dermal contact, and inhalation. The first two generally require direct contact with the contaminated medium (usually soil), while the latter includes the inhalation of vapors and respirable dust (usually in the form of particulate matter less than 10 microns [PM_{10}]). Inhalation is the only available pathway for the exhaust vapors that contain acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene. Diesel PM is a respirable dust that can potentially be both ingested (oral) or enter the body through contact with contaminated soil. Oral or non-inhalation exposure pathways include the ingestion of soil, fisher caught fish, drinking water from surface waters, mother’s milk, homegrown produce, beef, pork, chicken, eggs and cow’s milk. With respect to diesel PM, the oral pathway is available only through ingestion of contaminated soil, similar to the dermal contact. However, OEHHA does not list an oral slope toxicity for diesel PM and nor does the USEPA Integrated Risk Information System (IRIS) as toxicity studies have focused on the inhalation hazard. Therefore, only the inhalation pathway is considered in this risk assessment.

Carcinogenic health risk was based on a stay-at-home adult resident present at proposed residential units for the recommended default time periods of 9 and 30 years. These correspond to the central tendency for the average time spent in a single residence (9 year, 50th percentile) and the high-end



estimate for residency time (30 year, 95th percentile). Although it is possible to evaluate cancer risks over a lifetime, or 70-year exposure duration, 30 years is the exposure duration scenario recommended by the SBCAPCD in the *Modeling Guidelines for Health Risk Assessments* (August 2015). The 9-year residency is also used by the OEHHA to calculate risk for child receptors. Chronic, non-cancer risks were calculated using the “Derived (OEHHA)” risk calculation method.

The USEPA considers for risk management those pollutants that could cause carcinogenic risks between one in 10,000 (1.0×10^{-4} or $1.0E-04$) and one in one million (1.0×10^{-6} or $1.0E-06$). Passage of Proposition 65 (encoded in California Health and Safety Code Section 25249.6) in 1986 prohibits a person in the course of doing business from knowingly and intentionally exposing any individual to a chemical that has been listed as known to the state to cause cancer or reproductive toxicity without first giving clear and reasonable warning. For a chemical that is listed as a carcinogen, the “no significant risk” level under Proposition 65 is defined as the level which is calculated to result in not more than one excess case of cancer in 100,000 individuals ($1.0E-05$). The SBCAPCD recommends the use of this risk level (also reportable as 10 in one million) as the significance threshold for toxic air contaminants (SBCAPCD, April 2015). In addition, the SBCAPCD recommends that the non-carcinogenic hazards of toxic air contaminants at ground level should not exceed a hazard index (or hazard quotient) of 1.0 for either chronic or acute effects (SBCAPCD, April 2015).

To provide a perspective on risk, it is noted that the American Cancer Society (2007) reports that in the U.S., men have a one in two chance (0.5 probability) and women about one in three chance (0.3) probability of developing cancer during a lifetime, with one in four deaths (0.23) in the U.S. attributed to cancer. Given this background carcinogenic risk level in the general population, application of a 10^{-5} excess risk limit means that the contribution from a toxic hazard should not cause the resultant cancer risk for the exposed population to exceed 0.50001 for men and 0.33001 for women.

RESULTS

Health risks for four sensitive receptor locations distributed throughout the Project site were modeled. Each of these receptors represents a proposed location of residential structures on site and includes first floor, second floor, and third floor elevations (where present). The Point of Maximum Impact (PMI), which is typically at the border of the source (freeway fence), was not calculated since it is not relevant to the analysis given the specific location of the proposed land uses. A receptor grid was used to evaluate whether or not sensitive receptor locations reflected the pattern of exposure.

Significant carcinogenic health risk was determined for residency scenarios (9-year adult and child, and 30-year) at all four receptor locations, as indicated in Table 3. Diesel exhaust particulates are the major source of this carcinogenic health risk as they are responsible for about 98% of the calculated risk at the maximum exposed individual receptor (MEIR). Refer to the appendix for more detailed accounting of the risk at each site per pollutant of concern.

As shown in Table 3, the chronic health risk for the closest on-site habitable units (MEIR receptors) associated with the freeway vehicle exhaust emissions are not significant, as chronic inhalation health hazards are below the SBCAPCD threshold hazard index of 1.0. The chemicals most responsible for the chronic inhalation risk are 1,3 butadiene and formaldehyde. Refer to the appendix for more detailed accounting of the risk per pollutant of concern.



**Table 3
 Potential Health Risks at the MEIR Receptors**

	Excess Cancer Risk	Exceed Criterion? (10 ⁻⁵)	OEHHA Chronic Hazard Quotient ¹	Exceed Criterion? (>1)
Residential 1				
9-year Resident				
Adult	1.54E-05	YES	6.41E-02	NO
Child	2.27E-05	YES	--	--
30-year Adult	5.12E-05	YES	6.41E-02	NO
Residential 2				
9-year Resident				
Adult	1.47E-05	YES	6.10E-02	NO
Child	2.17E-05	YES	--	--
30-year Adult	4.90E-05	YES	6.10E-02	NO
Residential 3				
9-year Resident				
Adult	1.77E-05	YES	7.06E-02	NO
Child	2.61E-05	YES	--	--
30-year Adult	5.89E-05	YES	7.06E-02	NO
Residential 4				
9-year Resident				
Adult	1.25E-05	YES	5.00E-02	NO
Child	1.85E-05	YES	--	--
30-year Adult	4.17E-05	YES	5.00E-02	NO

Refer to appendix for complete model results.

1: Note that chronic risk does not change with increase in years as calculation terms cancel out.

To determine if an acute health risk might be present, the one hour maximum concentration of the toxic air contaminants of concern were compared to the appropriate reference exposure level (REL), and the acute health risk was also determined to not be significant.

CONCLUSIONS and RECOMMENDATIONS

The proposed use of the site for residential development would expose on-site residents to potentially significant carcinogenic health risks associated with vehicle emissions, specifically diesel exhaust particulates, based upon SBCAPCD health risk criteria. The calculated risk is based on exposure to outdoor air 24 hours per day, but the USEPA *Exposure Factors Handbook* indicates that the recommended daily activity pattern includes 16.6 hours per day spent inside and 2.3 hours per day outside (2011; Table 16-16 Time Spent (minutes/day) in Various Rooms at Home and in All Rooms Combined, Doers Only and Table 16-22 Mean Time Spent (minutes/day) Outside and Inside, Adults 18 Years and Older, Doers Only)². The remaining daily time is spent off-site. As a conservative simplifying assumption, this analysis presumes that residents would have the windows open sufficiently to equalize the concentration of pollutants between the indoor and outdoor environment. This simplifying assumption results in a calculated risk that is likely to be nearly an order of magnitude higher than actual indoor risk.

² "Doers Only" includes data for individuals that spent >0 time in motor vehicles and had 30 or more records are included in the USEPA *Exposure Factors Handbook* analysis.



It should be noted that diesel particulates will settle out to some unknown extent on window screens and other surfaces as outdoor air enters into the indoor air environment, though at least a portion of this settled material would become re-suspended during cleaning and other activities. Therefore, it is likely that this analysis over-estimates the carcinogenic health risk. Furthermore, current regulatory action by CARB is intended to reduce the amount of diesel exhaust particulates associated with on-road diesel trucks in the future (note that the analysis was based on Year 2018 composite emission factors). Conversely, vehicle emissions are based on current traffic estimates; truck traffic growth that may occur in the future along this portion of U.S. 101 may result in increased emissions on a per mile basis, but such increases in truck traffic will be offset to some degree by changes in both the truck and non-diesel vehicle fleets as newer, less polluting vehicles become the majority portion of the fleet populations. Because the carcinogenic health risk for all scenarios is greater than 10 in one million, the potential effect of exposure to diesel particulate air pollutants at this site under current traffic conditions is considered potentially significant.

Based on the above analysis and the fact that the site is at the margin of the significance criteria for carcinogenic risk for the 9 and 30 year scenarios, the potential carcinogenic health hazard can be mitigated to a less than significant level (below 10 in one million) for these scenarios by reducing the amount of diesel exhaust particulates that the residents are exposed to in the indoor environment. Therefore, we recommend the following actions be incorporated into the Project:

- Forced air ventilation with filter screens on outside air intake ducts shall be provided for all residential units proposed on the site. The filter screens shall have a MERV 13 rating, capable of removing at least 90% of the particulate matter including fine particulate matter (PM_{2.5}).
- For individual residential units with separate HVAC systems, a brochure notifying the future residents of the need for maintaining the filter screens shall be prepared and provided at the time of ownership exchange. In addition, a notice of the diesel particulates risk hazard and the need for screen maintenance shall be placed in the property title or lease.
- Windows and doors shall be fully weatherproofed with caulking and weather-stripping that is rated to last at least 20 years.

These mitigation actions would provide for the removal of particulates prior to entering into the indoor environment, thereby reducing the overall exposure of individual residents. The above mitigation actions would apply to all residential receptors on the Project site. Table 4 below indicates the calculated carcinogenic risk associated with this mitigation measure for proposed residential units on the Project site. The estimated reduction in cancer risk assumes removal of the DPM by the whole house filter (these filters have efficiency rates exceeding 90%), but continued exposure to outside air for a period of 2.3 hours daily (USEPA *Exposure Factors Handbook*). This would provide a clean interior environment and reduce the future residents' exposure to toxic air contaminants associated with U.S. 101 and the UPRR to below the ten in one million level for the average (50th percentile) residency of 9 years for an adult and child and the 30-year scenario (95th percentile).



**Table 4
 Mitigated Potential Carcinogenic Health Risks Within the
 Project Site**

	Mitigated Excess Cancer Risk	Exceed Criterion? (10⁻⁵)
Residential 1		
9-year Resident		
Adult	2.56E-06	NO
Child	3.77E-06	NO
30-year Adult	8.51E-06	NO
Residential 2		
9-year Resident		
Adult	2.44E-06	NO
Child	3.61E-06	NO
30-year Adult	8.15E-06	NO
Residential 3		
9-year Resident		
Adult	2.94E-06	NO
Child	4.34E-06	NO
30-year Adult	9.79E-06	NO
Residential 4		
9-year Resident		
Adult	2.08E-06	NO
Child	3.08E-06	NO
30-year Adult	6.93E-06	NO

Refer to appendix for complete model results.



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Appendix

*Emission Rates for U.S. Highway 101, Union Pacific
Railroad, and SBCAPCD Permitted Sources*

HARP Model Risk Analysis Results



Derivation of Emission Rates for Highway Sources

Freeway width, one way 50.0 feet
Each direction segment at 500.0 feet long

	Emissions					
	Diesel PM	Benzene	1,3-Butadiene	Acetaldehyde	Acrolein	Formaldehyde
grams/mi/day **	53.3	77.21	5.26	22.64	1.34	37.70
lbs/hour/segment	0.0005	0.0007	0.00005	0.0002	0.00001	0.00033
lbs/year/segment ***	4.1	5.88	0.40	1.73	0.10	2.87

** Total emissions per mile calculated using the above speciation factors.

*** Based on 365 day/year

Assessor Parcel Number (APN)	Address	FID	Facility Name	Permitted Equipment	Emissions
73050021	6325 LINDMAR DR. GOLETA CA, 93117-3131	3640	Trisep Corp	Solvent Operations	The facility uses a variety of solvents that are marked as confidential trade secrets. The facility uses thermal oxidizers and wet scrubbers to control emissions by 95+%. The entire facility is limited to 13.28 tpy of Reactive Organic Compounds, with a portion of that corresponding to toxics. Specific toxic emissions are not quantified on an annual basis.
73050030	6338 LINDMAR DR. GOLETA CA, 93117-3112	1152	Bardex Corporation	Coating Operations	Minimal. Not quantified on an annual basis.
73050033	27 S LA PATERA LN. GOLETA CA, 93117-3214	11130	Direct Relief International	Emergency Generator	Minimal. Around 0.01 tpy diesel PM
73050027	6380 HOLLISTER AVE. GOLETA CA, 93117-3114	1971	Raytheon-Hollister (Electronic Warfare)	Solvent + Emergency Generator	Generator is minimal. Around 0.01 tpy diesel PM. Solvent emissions not quantified.
73330009	175 CREMONA DR. GOLETA CA, 93117-3084	4583	Karl Storz Imaging, Incorporated	Solvent - Permit Exempt	Minimal. Not quantified on an annual basis.
77160054	6465 CALLE REAL GOLETA	1246	CA Hwy Patrol	Gasoline Storage	Minimal. Not quantified on an annual basis.
73050041	75 ROBIN HILL RD. GOLETA CA, 93117-3108	10867	Innovative Micro Technology Inc	Solvent + Emergency Generator + Boilers	Generator is minimal. Around 0.01 tpy diesel PM. Boiler is minimal. Not quantified on an annual basis.
73050013	112 ROBIN HILL RD. GOLETA CA, 93117-3107	10105	Brunker Nano, Inc	Emergency Generator	Minimal. Around 0.01 tpy diesel PM

Derivation of Emission Rates for RR Source

Railway width 50 feet
Each segment at 500 feet long

	Emissions					
	Diesel PM	Benzene	1,3-Butadiene	Acetaldehyde	Acrolein	Formaldehyde
grams/mi/day **	497.3	0.03	0.03	0.22	0.04	0.47
lbs/hour/segment	0.0043	0.0000002	0.0000003	0.000002	0.0000004	0.000004
lbs/year/segment ***	37.9	0.002	0.002	0.02	0.003	0.04

** Total emissions per mile calculated using the above speciation factors.

*** Based on 365 day/year

This file: c:\HARP\projects\demo\Rep_Chr_Res_DerOEH_AllRec_AllSrc_AllCh_ByRec_ByChem_Site_UTM.txt

Created by HARP Version 1.4f Build 23.11.01

UsesISC Version 99155

UsesBPIP (Dated: 04112)

Creation date:12/29/2015 3:06:10 PM

EXCEPTION REPORT

(there have been no changes or exceptions)

INPUT FILES:

Source-Receptor file: C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 -
onramp\offramp\12.29.15.SRC

Averaging period adjustment factors file: not applicable

Emission rates file: 12.29.15.EMS

Site parameters file: c:\HARP\projects\demo\project.sit

Screeningmode is OFF

Exposure duration: resident

Analysis method: Derived (OEHHA) Method

Health effect: Chronic HI

Receptor(s): All

Sources(s): All

Chemicals(s): All

SITE PARAMETERS

DEPOSITION

Deposition rate (m/s) 0.05

DRINKING WATER

*** Pathway disabled ***

FISH

*** Pathway disabled ***

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

*** Pathway disabled ***

"PIGS," CHICKENS AND EGGS

*** Pathway disabled ***

DERMAL ABSORPTION

*** Pathway disabled ***

SOIL INGESTION

*** Pathway disabled ***

MOTHER'S MILK

*** Pathway disabled ***

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEM	CAS	ABBREVIATION	POLLUTANT	NAME	BACKGROUND	(ug/m^3)
1	106990	"1,3-Butadiene"	"1,3-Butadiene"		0.00E+00	
2	75070	Acetaldehyde	Acetaldehyde		0.00E+00	
3	107028	Acrolein	Acrolein		0.00E+00	
4	71432	Benzene	Benzene		0.00E+00	
5	9901	DieselExhPM	Diesel engine	"exhaust," particulate matter (Diesel PM)	0.00E+00	
6	50000	Formaldehyde	Formaldehyde		0.00E+00	

CHEMICAL HEALTHVALUES

CHEM	CAS	ABBREVIATION	CancerPF(Inh)	CancerPF(Oral)	ChronicREL(Inh)	ChronicREL(Oral)	AcuteREL
			(mg/kg-d)^-1	(mg/kg-d)^-1	ug/m^3	mg/kg-d	ug/m^3
1	106990	"1,3-Butadiene"	6.00E-01 *	2.00E+01 *	*		
2	75070	Acetaldehyde	1.00E-02 *	1.40E+02 *	4.70E+02		
3	107028	Acrolein	* *	3.50E-01 *	2.50E+00		
4	71432	Benzene	1.00E-01 *	6.00E+01 *	1.30E+03		
5	9901	DieselExhPM	1.10E+00 *	5.00E+00 *	*		
6	50000	Formaldehyde	2.10E-02 *	9.00E+00 *	5.50E+01		

EMISSIONS DATA SOURCE: Emission rates loaded from file:
 C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.EMS
 CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=1 NAME=1001 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04

50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=2 NAME=1002 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05

75070 Acetaldehyde 1 0 1.73E+002.00E-04

107028 Acrolein 1 0 1.00E-01 1.00E-05

71432 Benzene 1 0 5.88E+007.00E-04

9901 DieselExhPM 1 0 4.10E+005.00E-04

50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=3 NAME=1003 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05

75070 Acetaldehyde 1 0 1.73E+002.00E-04

107028 Acrolein 1 0 1.00E-01 1.00E-05

71432 Benzene 1 0 5.88E+007.00E-04

9901 DieselExhPM 1 0 4.10E+005.00E-04

50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=4 NAME=1004 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05

75070 Acetaldehyde 1 0 1.73E+002.00E-04

107028 Acrolein 1 0 1.00E-01 1.00E-05

71432 Benzene 1 0 5.88E+007.00E-04

9901 DieselExhPM 1 0 4.10E+005.00E-04

50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=5 NAME=1005 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05

75070 Acetaldehyde 1 0 1.73E+002.00E-04

107028 Acrolein 1 0 1.00E-01 1.00E-05

71432 Benzene 1 0 5.88E+007.00E-04

9901 DieselExhPM 1 0 4.10E+005.00E-04

50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=6 NAME=1006 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=7 NAME=1007 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=8 NAME=1008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=9 NAME=1009 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=10 NAME=1010 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04

50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=11 NAME=1011 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05

75070 Acetaldehyde 1 0 1.73E+002.00E-04

107028 Acrolein 1 0 1.00E-01 1.00E-05

71432 Benzene 1 0 5.88E+007.00E-04

9901 DieselExhPM 1 0 4.10E+005.00E-04

50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=12 NAME=1012 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05

75070 Acetaldehyde 1 0 1.73E+002.00E-04

107028 Acrolein 1 0 1.00E-01 1.00E-05

71432 Benzene 1 0 5.88E+007.00E-04

9901 DieselExhPM 1 0 4.10E+005.00E-04

50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=13 NAME=1013 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05

75070 Acetaldehyde 1 0 1.73E+002.00E-04

107028 Acrolein 1 0 1.00E-01 1.00E-05

71432 Benzene 1 0 5.88E+007.00E-04

9901 DieselExhPM 1 0 4.10E+005.00E-04

50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=14 NAME=1014 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05

75070 Acetaldehyde 1 0 1.73E+002.00E-04

107028 Acrolein 1 0 1.00E-01 1.00E-05

71432 Benzene 1 0 5.88E+007.00E-04

9901 DieselExhPM 1 0 4.10E+005.00E-04

50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=15 NAME=1015 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=16 NAME=1016 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=17 NAME=1017 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=18 NAME=1018 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=19 NAME=1019 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04

50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=20 NAME=1020 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05

75070 Acetaldehyde 1 0 1.73E+002.00E-04

107028 Acrolein 1 0 1.00E-01 1.00E-05

71432 Benzene 1 0 5.88E+007.00E-04

9901 DieselExhPM 1 0 4.10E+005.00E-04

50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=21 NAME=2001 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07

75070 Acetaldehyde 1 0 2.00E-02 2.00E-06

107028 Acrolein 1 0 3.00E-03 4.00E-07

71432 Benzene 1 0 2.00E-03 2.00E-07

9901 DieselExhPM 1 0 3.79E+014.30E-03

50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=22 NAME=2002 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07

75070 Acetaldehyde 1 0 2.00E-02 2.00E-06

107028 Acrolein 1 0 3.00E-03 4.00E-07

71432 Benzene 1 0 2.00E-03 2.00E-07

9901 DieselExhPM 1 0 3.79E+014.30E-03

50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=23 NAME=2003 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07

75070 Acetaldehyde 1 0 2.00E-02 2.00E-06

107028 Acrolein 1 0 3.00E-03 4.00E-07

71432 Benzene 1 0 2.00E-03 2.00E-07

9901 DieselExhPM 1 0 3.79E+014.30E-03

50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=24 NAME=2004 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=25 NAME=2005 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=26 NAME=2006 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=27 NAME=2007 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=28 NAME=2008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03

50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=29 NAME=2009 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07

75070 Acetaldehyde 1 0 2.00E-02 2.00E-06

107028 Acrolein 1 0 3.00E-03 4.00E-07

71432 Benzene 1 0 2.00E-03 2.00E-07

9901 DieselExhPM 1 0 3.79E+01 4.30E-03

50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=30 NAME=2010 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07

75070 Acetaldehyde 1 0 2.00E-02 2.00E-06

107028 Acrolein 1 0 3.00E-03 4.00E-07

71432 Benzene 1 0 2.00E-03 2.00E-07

9901 DieselExhPM 1 0 3.79E+01 4.30E-03

50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=31 NAME=3001 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00

75070 Acetaldehyde 1 0 0.00E+00 0.00E+00

107028 Acrolein 1 0 0.00E+00 0.00E+00

71432 Benzene 1 0 0.00E+00 0.00E+00

9901 DieselExhPM 1 0 2.00E+01 2.28E-03

50000 Formaldehyde 1 0 0.00E+00 0.00E+00

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=32 NAME=3002 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00

75070 Acetaldehyde 1 0 0.00E+00 0.00E+00

107028 Acrolein 1 0 0.00E+00 0.00E+00

71432 Benzene 1 0 0.00E+00 0.00E+00

9901 DieselExhPM 1 0 2.00E+01 2.28E-03

50000 Formaldehyde 1 0 0.00E+00 0.00E+00

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=33 NAME=3003 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

6 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+002.13E-03
0.00E+000.00E+002.13E-03
SUM 0.00E+006.49E-04 0.00E+006.49E-04 0.00E+000.00E+000.00E+000.00E+000.00E+001.33E-04 5.00E-02
0.00E+006.49E-04 5.00E-02 237957 3814058

This file: c:\HARP\projects\demo\Rep_Acu_AllRec_AllSrc_AllCh_ByRec_ByChem_UTM.txt

Created by HARP Version 1.4f Build 23.11.01
UsesISC Version 99155
UsesBPIP (Dated: 04112)
Creation date:12/29/2015 3:06:06 PM

EXCEPTION REPORT

(there have been no changes or exceptions)

INPUT FILES:

Source-Receptor file: C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 -
onramp\offramp\12.29.15.SRC
Averaging period adjustment factors file: not applicable
Emission rates file: 12.29.15.EMS
Site parameters file: c:\HARP\projects\demo\project.sit

Screeningmode is OFF

Analysis method: Point Estimate
Health effect: Acute HI Simple (Concurrent Max.)
Receptor(s): All
Sources(s): All
Chemicals(s): All

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEM	CAS	ABBREVIATION	POLLUTANT	NAME	BACKGROUND	(ug/m^3)
1	106990	"1,3-Butadiene"	"1,3-Butadiene"		0.00E+00	
2	75070	Acetaldehyde	Acetaldehyde		0.00E+00	
3	107028	Acrolein	Acrolein		0.00E+00	
4	71432	Benzene	Benzene		0.00E+00	
5	9901	DieselExhPM	Diesel engine	"exhaust," particulate matter (Diesel PM)	0.00E+00	
6	50000	Formaldehyde	Formaldehyde		0.00E+00	

CHEMICAL HEALTHVALUES

CHEM	CAS	ABBREVIATION	CancerPF(Inh)	CancerPF(Oral)	ChronicREL(Inh)	ChronicREL(Oral)	AcuteREL
			(mg/kg-d)^-1	(mg/kg-d)^-1	ug/m^3	mg/kg-d	ug/m^3
1	106990	"1,3-Butadiene"	6.00E-01 *	2.00E+01 *	*		
2	75070	Acetaldehyde	1.00E-02 *	1.40E+02 *	4.70E+02		
3	107028	Acrolein	* *	3.50E-01 *	2.50E+00		
4	71432	Benzene	1.00E-01 *	6.00E+01 *	1.30E+03		
5	9901	DieselExhPM	1.10E+00 *	5.00E+00 *	*		
6	50000	Formaldehyde	2.10E-02 *	9.00E+00 *	5.50E+01		

EMISSIONS DATA SOURCE: Emission rates loaded from file:

C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.EMS
CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=1 NAME=1001 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=2 NAME=1002 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=3 NAME=1003 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=4 NAME=1004 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=5 NAME=1005 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=6 NAME=1006 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=7 NAME=1007 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=8 NAME=1008 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=9 NAME=1009 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04

9901 DieselExhPM 1 0 4.10E+005.00E-04
50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=10 NAME=1010 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+002.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+007.00E-04
9901 DieselExhPM 1 0 4.10E+005.00E-04
50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=11 NAME=1011 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+002.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+007.00E-04
9901 DieselExhPM 1 0 4.10E+005.00E-04
50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=12 NAME=1012 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+002.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+007.00E-04
9901 DieselExhPM 1 0 4.10E+005.00E-04
50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=13 NAME=1013 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+002.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+007.00E-04
9901 DieselExhPM 1 0 4.10E+005.00E-04
50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=14 NAME=1014 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=15 NAME=1015 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=16 NAME=1016 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=17 NAME=1017 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=18 NAME=1018 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04

9901 DieselExhPM 1 0 4.10E+005.00E-04
50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=19 NAME=1019 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+002.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+007.00E-04
9901 DieselExhPM 1 0 4.10E+005.00E-04
50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=20 NAME=1020 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+002.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+007.00E-04
9901 DieselExhPM 1 0 4.10E+005.00E-04
50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=21 NAME=2001 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+014.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=22 NAME=2002 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+014.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=23 NAME=2003 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=24 NAME=2004 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=25 NAME=2005 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=26 NAME=2006 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=27 NAME=2007 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07

9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=28 NAME=2008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=29 NAME=2009 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=30 NAME=2010 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=31 NAME=3001 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00
75070 Acetaldehyde 1 0 0.00E+00 0.00E+00
107028 Acrolein 1 0 0.00E+00 0.00E+00
71432 Benzene 1 0 0.00E+00 0.00E+00
9901 DieselExhPM 1 0 2.00E+01 2.28E-03
50000 Formaldehyde 1 0 0.00E+00 0.00E+00

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=32 NAME=3002 EMS (lbs/yr)

SOURCE MULTIPLIER=1

	CHEM	CV	CNSBONE	DEVEL	ENDO	EYEGILV	IMMUN	KIDN	REPRO	RESP	SKIN
	BLOOD	MAX	UTME	UTMN							
1	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
2	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+009	0.07E-04	0.00E+000	0.00E+000	0.00E+000	0.00E+009	0.07E-04
3	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+008	0.70E-03	0.00E+000	0.00E+000	0.00E+000	0.00E+008	0.70E-03
4	0.00E+000	0.00E+000	0.00E+001	1.14E-03	0.00E+000	0.00E+000	0.00E+001	1.14E-03	0.00E+001	1.14E-03	0.00E+000
5	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
6	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+001	1.17E-02	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
SUM	0.00E+000	0.00E+000	0.00E+001	1.14E-03	0.00E+002	1.13E-02	0.00E+001	1.14E-03	0.00E+001	1.14E-03	9.61E-03
	0.00E+001	1.14E-03	2.13E-02	237957	3814058						

This file: c:\HARP\projects\demo\Rep_Can_9yrA_DerOEH_AllRec_AllSrc_AllCh_ByRec_ByChem_Site_UTM.txt

Created by HARP Version 1.4f Build 23.11.01
UsesISC Version 99155
UsesBPIP (Dated: 04112)
Creation date: 12/29/2015 3:05:54 PM

EXCEPTION REPORT

(there have been no changes or exceptions)

INPUT FILES:

Source-Receptor file: C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 -
onramp\offramp\12.29.15.SRC
Averaging period adjustment factors file: not applicable

Emission rates file: 12.29.15.EMS
Site parameters file: c:\HARP\projects\demo\project.sit

Screeningmode is OFF

Exposure duration: 9 year (adult resident)
Analysis method: Derived (OEHHA) Method
Health effect: Cancer Risk
Receptor(s): All
Sources(s): All
Chemicals(s): All

SITE PARAMETERS

DEPOSITION

Deposition rate (m/s) 0.05

DRINKING WATER

*** Pathway disabled ***

FISH

*** Pathway disabled ***

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

*** Pathway disabled ***

"PIGS," CHICKENS AND EGGS

*** Pathway disabled ***

DERMAL ABSORPTION

*** Pathway disabled ***

SOIL INGESTION

*** Pathway disabled ***

MOTHER'S MILK

*** Pathway disabled ***

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEM	CAS	ABBREVIATION	POLLUTANT	NAME	BACKGROUND	(ug/m^3)
1	106990	"1,3-Butadiene"	"1,3-Butadiene"		0.00E+00	
2	75070	Acetaldehyde	Acetaldehyde		0.00E+00	
3	107028	Acrolein	Acrolein		0.00E+00	
4	71432	Benzene	Benzene		0.00E+00	
5	9901	DieselExhPM	Diesel engine	"exhaust,"	particulate matter	(Diesel PM) 0.00E+00
6	50000	Formaldehyde	Formaldehyde		0.00E+00	

CHEMICAL HEALTHVALUES

CHEM	CAS	ABBREVIATION	CancerPF(Inh)	CancerPF(Oral)	ChronicREL(Inh)	ChronicREL(Oral)	AcuteREL
			(mg/kg-d)^-1	(mg/kg-d)^-1	ug/m^3	mg/kg-d	ug/m^3
1	106990	"1,3-Butadiene"	6.00E-01 *	2.00E+01 *	*		
2	75070	Acetaldehyde	1.00E-02 *	1.40E+02 *	4.70E+02		
3	107028	Acrolein	* *	3.50E-01 *	2.50E+00		
4	71432	Benzene	1.00E-01 *	6.00E+01 *	1.30E+03		
5	9901	DieselExhPM	1.10E+00 *	5.00E+00 *	*		
6	50000	Formaldehyde	2.10E-02 *	9.00E+00 *	5.50E+01		

EMISSIONS DATA SOURCE: Emission rates loaded fromfile:
C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.EMS

CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=1 NAME=1001 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVR (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05

75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=2 NAME=1002 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=3 NAME=1003 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=4 NAME=1004 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=5 NAME=1005 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=6 NAME=1006 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=7 NAME=1007 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=8 NAME=1008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=9 NAME=1009 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=10 NAME=1010 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
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75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=11 NAME=1011 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=12 NAME=1012 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=13 NAME=1013 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=14 NAME=1014 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=15 NAME=1015 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=16 NAME=1016 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=17 NAME=1017 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=18 NAME=1018 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=19 NAME=1019 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
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75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=20 NAME=1020 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=21 NAME=2001 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=22 NAME=2002 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=23 NAME=2003 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=24 NAME=2004 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=25 NAME=2005 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=26 NAME=2006 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=27 NAME=2007 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=28 NAME=2008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
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75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=29 NAME=2009 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=30 NAME=2010 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=31 NAME=3001 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	0.00E+00	0.00E+00
75070	Acetaldehyde	1	0	0.00E+00	0.00E+00
107028	Acrolein	1	0	0.00E+00	0.00E+00
71432	Benzene	1	0	0.00E+00	0.00E+00
9901	DieselExhPM	1	0	2.00E+01	2.28E-03
50000	Formaldehyde	1	0	0.00E+00	0.00E+00

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=32 NAME=3002 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	0.00E+00	0.00E+00
75070	Acetaldehyde	1	0	0.00E+00	0.00E+00
107028	Acrolein	1	0	0.00E+00	0.00E+00
71432	Benzene	1	0	0.00E+00	0.00E+00
9901	DieselExhPM	1	0	2.00E+01	2.28E-03
50000	Formaldehyde	1	0	0.00E+00	0.00E+00

DOMINANT "PATHWAYS," Receptor 202

CHEM	EGG	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG
1	YES	-	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 202

CHEM	EGG	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG
MEAT	ORAL	TOTAL	UTME	UTMN								
1	1.64E-07	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	1.64E-07								
2	1.19E-08	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	1.19E-08								
3	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	0.00E+000								
4	4.02E-07	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	4.02E-07								
5	1.47E-05	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	1.47E-05								
6	4.14E-08	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	4.14E-08								
SUM	1.54E-05	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	1.54E-05	238131	3814258						

DOMINANT "PATHWAYS," Receptor 203

CHEM	EGG	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG
1	YES	-	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 203

CHEM	EGG	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG
MEAT	ORAL	TOTAL	UTME	UTMN								
1	1.64E-07	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	1.64E-07								
2	1.19E-08	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	1.19E-08								
3	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	0.00E+000								
4	4.02E-07	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	4.02E-07								
5	1.47E-05	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	1.47E-05								
6	4.14E-08	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	4.14E-08								

This file: c:\HARP\projects\demo\Rep_Can_9yrC_DerOEH_AllRec_AllSrc_AllCh_ByRec_ByChem_Site_UTM.txt

Created by HARP Version 1.4f Build 23.11.01

UsesISC Version 99155

UsesBPIP (Dated: 04112)

Creation date: 12/29/2015 3:06:00 PM

EXCEPTION REPORT

(there have been no changes or exceptions)

INPUT FILES:

Source-Receptor file: C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 -
onramp\offramp\12.29.15.SRC

Averaging period adjustment factors file: not applicable

Emission rates file: 12.29.15.EMS

Site parameters file: c:\HARP\projects\demo\project.sit

Screeningmode is OFF

Exposure duration: 9 year (child resident)

Analysis method: Derived (OEHHA) Method

Health effect: Cancer Risk

Receptor(s): All

Sources(s): All

Chemicals(s): All

SITE PARAMETERS

DEPOSITION

Deposition rate (m/s) 0.05

DRINKING WATER

*** Pathway disabled ***

FISH

*** Pathway disabled ***

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

*** Pathway disabled ***

"PIGS," CHICKENS AND EGGS

*** Pathway disabled ***

DERMAL ABSORPTION

*** Pathway disabled ***

SOIL INGESTION

*** Pathway disabled ***

MOTHER'S MILK

*** Pathway disabled ***

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEM	CAS	ABBREVIATION	POLLUTANT	NAME	BACKGROUND	(ug/m^3)
1	106990	"1,3-Butadiene"	"1,3-Butadiene"		0.00E+00	
2	75070	Acetaldehyde	Acetaldehyde		0.00E+00	
3	107028	Acrolein	Acrolein		0.00E+00	
4	71432	Benzene	Benzene		0.00E+00	
5	9901	DieselExhPM	Diesel engine	"exhaust,"	particulate matter	(Diesel PM) 0.00E+00
6	50000	Formaldehyde	Formaldehyde		0.00E+00	

CHEMICAL HEALTHVALUES

CHEM	CAS	ABBREVIATION	CancerPF(Inh)	CancerPF(Oral)	ChronicREL(Inh)	ChronicREL(Oral)	AcuteREL
			(mg/kg-d)^-1	(mg/kg-d)^-1	ug/m^3	mg/kg-d	ug/m^3
1	106990	"1,3-Butadiene"	6.00E-01 *	2.00E+01 *	*		
2	75070	Acetaldehyde	1.00E-02 *	1.40E+02 *	4.70E+02		
3	107028	Acrolein	* *	3.50E-01 *	2.50E+00		
4	71432	Benzene	1.00E-01 *	6.00E+01 *	1.30E+03		
5	9901	DieselExhPM	1.10E+00 *	5.00E+00 *	*		
6	50000	Formaldehyde	2.10E-02 *	9.00E+00 *	5.50E+01		

EMISSIONS DATA SOURCE: Emission rates loaded fromfile:
C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.EMS

CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=1 NAME=1001 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05

75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=2 NAME=1002 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=3 NAME=1003 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=4 NAME=1004 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=5 NAME=1005 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=6 NAME=1006 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=7 NAME=1007 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=8 NAME=1008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=9 NAME=1009 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=10 NAME=1010 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
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75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=11 NAME=1011 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=12 NAME=1012 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=13 NAME=1013 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=14 NAME=1014 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=15 NAME=1015 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=16 NAME=1016 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=17 NAME=1017 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=18 NAME=1018 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=19 NAME=1019 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
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75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=20 NAME=1020 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=21 NAME=2001 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=22 NAME=2002 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=23 NAME=2003 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=24 NAME=2004 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=25 NAME=2005 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=26 NAME=2006 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=27 NAME=2007 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=28 NAME=2008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
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75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=29 NAME=2009 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=30 NAME=2010 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=31 NAME=3001 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	0.00E+00	0.00E+00
75070	Acetaldehyde	1	0	0.00E+00	0.00E+00
107028	Acrolein	1	0	0.00E+00	0.00E+00
71432	Benzene	1	0	0.00E+00	0.00E+00
9901	DieselExhPM	1	0	2.00E+01	2.28E-03
50000	Formaldehyde	1	0	0.00E+00	0.00E+00

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=32 NAME=3002 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	0.00E+00	0.00E+00
75070	Acetaldehyde	1	0	0.00E+00	0.00E+00
107028	Acrolein	1	0	0.00E+00	0.00E+00
71432	Benzene	1	0	0.00E+00	0.00E+00
9901	DieselExhPM	1	0	2.00E+01	2.28E-03
50000	Formaldehyde	1	0	0.00E+00	0.00E+00

0.00E+000.00E+000.00E+000.00E+00
4 2.79E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.79E-07
5 1.81E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.81E-05
6 2.89E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.89E-08
SUM 1.85E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.85E-05 237957 3814058

This file: c:\HARP\projects\demo\Rep_Can_30yr_DerOEH_AllRec_AllSrc_AllCh_ByRec_ByChem_Site_UTM.txt

Created by HARP Version 1.4f Build 23.11.01
UsesISC Version 99155
UsesBPIP (Dated: 04112)
Creation date: 12/29/2015 3:05:01 PM

EXCEPTION REPORT

(there have been no changes or exceptions)

INPUT FILES:

Source-Receptor file: C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 -
onramp\offramp\12.29.15.SRC
Averaging period adjustment factors file: not applicable

Emission rates file: 12.29.15.EMS
Site parameters file: c:\HARP\projects\demo\project.sit

Screeningmode is OFF

Exposure duration: 30 year (adult resident)
Analysis method: Derived (OEHHA) Method
Health effect: Cancer Risk
Receptor(s): All
Sources(s): All
Chemicals(s): All

SITE PARAMETERS

DEPOSITION

Deposition rate (m/s) 0.05

DRINKING WATER

*** Pathway disabled ***

FISH

*** Pathway disabled ***

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

*** Pathway disabled ***

"PIGS," CHICKENS AND EGGS

*** Pathway disabled ***

DERMAL ABSORPTION

*** Pathway disabled ***

SOIL INGESTION

*** Pathway disabled ***

MOTHER'S MILK

*** Pathway disabled ***

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEM	CAS	ABBREVIATION	POLLUTANT	NAME	BACKGROUND	(ug/m^3)
1	106990	"1,3-Butadiene"	"1,3-Butadiene"		0.00E+00	
2	75070	Acetaldehyde	Acetaldehyde		0.00E+00	
3	107028	Acrolein	Acrolein		0.00E+00	
4	71432	Benzene	Benzene		0.00E+00	
5	9901	DieselExhPM	Diesel engine	"exhaust,"	particulate matter	(Diesel PM) 0.00E+00
6	50000	Formaldehyde	Formaldehyde		0.00E+00	

CHEMICAL HEALTHVALUES

CHEM	CAS	ABBREVIATION	CancerPF(Inh)	CancerPF(Oral)	ChronicREL(Inh)	ChronicREL(Oral)	AcuteREL
			(mg/kg-d)^-1	(mg/kg-d)^-1	ug/m^3	mg/kg-d	ug/m^3
1	106990	"1,3-Butadiene"	6.00E-01 *	2.00E+01 *	*		
2	75070	Acetaldehyde	1.00E-02 *	1.40E+02 *	4.70E+02		
3	107028	Acrolein	* *	3.50E-01 *	2.50E+00		
4	71432	Benzene	1.00E-01 *	6.00E+01 *	1.30E+03		
5	9901	DieselExhPM	1.10E+00 *	5.00E+00 *	*		
6	50000	Formaldehyde	2.10E-02 *	9.00E+00 *	5.50E+01		

EMISSIONS DATA SOURCE: Emission rates loaded fromfile:
C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.EMS

CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=1 NAME=1001 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVR (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05

75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=2 NAME=1002 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=3 NAME=1003 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=4 NAME=1004 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=5 NAME=1005 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=6 NAME=1006 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=7 NAME=1007 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=8 NAME=1008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=9 NAME=1009 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=10 NAME=1010 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
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75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=11 NAME=1011 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=12 NAME=1012 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=13 NAME=1013 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=14 NAME=1014 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=15 NAME=1015 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=16 NAME=1016 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=17 NAME=1017 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=18 NAME=1018 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=19 NAME=1019 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
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75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=20 NAME=1020 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=21 NAME=2001 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=22 NAME=2002 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=23 NAME=2003 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVR G (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=24 NAME=2004 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=25 NAME=2005 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=26 NAME=2006 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=27 NAME=2007 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=28 NAME=2008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m³) AVRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
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75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=29 NAME=2009 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=30 NAME=2010 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=31 NAME=3001 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	0.00E+00	0.00E+00
75070	Acetaldehyde	1	0	0.00E+00	0.00E+00
107028	Acrolein	1	0	0.00E+00	0.00E+00
71432	Benzene	1	0	0.00E+00	0.00E+00
9901	DieselExhPM	1	0	2.00E+01	2.28E-03
50000	Formaldehyde	1	0	0.00E+00	0.00E+00

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=32 NAME=3002 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CASABBREV MULTIPLIERBG (ug/m^3) AVRGRG (lbs/yr) MAX (lbs/hr)

106990	"1,3-Butadiene"	1	0	0.00E+00	0.00E+00
75070	Acetaldehyde	1	0	0.00E+00	0.00E+00
107028	Acrolein	1	0	0.00E+00	0.00E+00
71432	Benzene	1	0	0.00E+00	0.00E+00
9901	DieselExhPM	1	0	2.00E+01	2.28E-03
50000	Formaldehyde	1	0	0.00E+00	0.00E+00

0.00E+000.00E+000.00E+005.12E-05 238131 3814258

DOMINANT "PATHWAYS," Receptor 204

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG
EGG											
1	YES-	-	-	-	-	-	-	-	-	-	-
2	YES-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-
4	YES-	-	-	-	-	-	-	-	-	-	-
5	YES-	-	-	-	-	-	-	-	-	-	-
6	YES-	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 204

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG
EGG	MEAT	ORAL	TOTAL	UTME	UTMN						
1	4.97E-07	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+004	4.97E-07							
2	3.60E-08	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+003	3.60E-08							
3	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	0.00E+000							
4	1.22E-06	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+001	1.22E-06							
5	4.71E-05	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+004	4.71E-05							
6	1.25E-07	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+001	1.25E-07							
SUM	4.90E-05	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+004	4.90E-05	237962	3814240					

DOMINANT "PATHWAYS," Receptor 205

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG
EGG											
1	YES-	-	-	-	-	-	-	-	-	-	-
2	YES-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-
4	YES-	-	-	-	-	-	-	-	-	-	-
5	YES-	-	-	-	-	-	-	-	-	-	-
6	YES-	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 205

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG
EGG	MEAT	ORAL	TOTAL	UTME	UTMN						
1	4.97E-07	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+004	4.97E-07							
2	3.60E-08	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+003	3.60E-08							
3	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+000	0.00E+000							
4	1.22E-06	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+001	1.22E-06							
5	4.71E-05	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+004	4.71E-05							
6	1.25E-07	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000
	0.00E+000	0.00E+000	0.00E+001	1.25E-07							

Mitigated Potential Carcinogenic Health Risks Within the Project Site Calculation

		<u>Factor</u>
EF =	Exposure frequency in days per year	350
EFa =	Exp. Freq adjusted outside; only 2.3 hours/day out	33.5
EFai =	Exp. Freq adjusted inside; 16.9 hours/day inside	246.5
FE =	Filter Efficiency	90%
Equation =	Mitigated Risk = [Unmitigated Risk]/EF*EFa+(1-FE)*([Unmitigated Risk]/EF*EFai)	

Cancer Health Risk - 30 Year (Residency at 95th Percentile)

	Unmitigated Risk	Exceed Criterion? (10 ⁻⁵)	Mitigated Risk	Exceed Criterion? (10 ⁻⁵)
1 Residential 1 - First Floor	5.12E-05	YES	8.51E-06	NO
2 Residential 1 - Second Floor	5.12E-05	YES	8.51E-06	NO
3 Residential 1 - Third Floor	5.12E-05	YES	8.51E-06	NO
4 Residential 2 - First Floor	4.90E-05	YES	8.15E-06	NO
5 Residential 2 - Second Floor	4.90E-05	YES	8.15E-06	NO
6 Residential 3 - First Floor	5.89E-05	YES	9.79E-06	NO
7 Residential 3 - Second Floor	5.89E-05	YES	9.79E-06	NO
8 Residential 3 - Third Floor	5.89E-05	YES	9.79E-06	NO
9 Residential 4 - First Floor	4.17E-05	YES	6.93E-06	NO
10 Residential 4 - Second Floor	4.17E-05	YES	6.93E-06	NO
11 Residential 4 - Third Floor	4.17E-05	YES	6.93E-06	NO

Cancer Health Risk - 9 Year Residency Adult (average - 50th percentile)

	Unmitigated Risk	Exceed Criterion? (10 ⁻⁵)	Mitigated Risk	Exceed Criterion? (10 ⁻⁵)
1 Residential 1 - First Floor	1.54E-05	YES	2.56E-06	NO
2 Residential 1 - Second Floor	1.54E-05	YES	2.56E-06	NO
3 Residential 1 - Third Floor	1.54E-05	YES	2.56E-06	NO
4 Residential 2 - First Floor	1.47E-05	YES	2.44E-06	NO
5 Residential 2 - Second Floor	1.47E-05	YES	2.44E-06	NO
6 Residential 3 - First Floor	1.77E-05	YES	2.94E-06	NO
7 Residential 3 - Second Floor	1.77E-05	YES	2.94E-06	NO
8 Residential 3 - Third Floor	1.77E-05	YES	2.94E-06	NO
9 Residential 4 - First Floor	1.25E-05	YES	2.08E-06	NO
10 Residential 4 - Second Floor	1.25E-05	YES	2.08E-06	NO
11 Residential 4 - Third Floor	1.25E-05	YES	2.08E-06	NO

Cancer Health Risk - 9 Year Residency Child (average - 50th percentile)

	Unmitigated Risk	Exceed Criterion? (10 ⁻⁵)	Mitigated Risk	Exceed Criterion? (10 ⁻⁵)
1 Residential 1 - First Floor	2.27E-05	YES	3.77E-06	NO
2 Residential 1 - Second Floor	2.27E-05	YES	3.77E-06	NO
3 Residential 1 - Third Floor	2.27E-05	YES	3.77E-06	NO
4 Residential 2 - First Floor	2.17E-05	YES	3.61E-06	NO
5 Residential 2 - Second Floor	2.17E-05	YES	3.61E-06	NO
6 Residential 3 - First Floor	2.61E-05	YES	4.34E-06	NO
7 Residential 3 - Second Floor	2.61E-05	YES	4.34E-06	NO
8 Residential 3 - Third Floor	2.61E-05	YES	4.34E-06	NO
9 Residential 4 - First Floor	1.85E-05	YES	3.08E-06	NO
10 Residential 4 - Second Floor	1.85E-05	YES	3.08E-06	NO
11 Residential 4 - Third Floor	1.85E-05	YES	3.08E-06	NO