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March 13, 2020

Sarah McCormick, Assistant Planner  
City of Fort Bragg  
416 North Franklin Street  
Fort Bragg, CA 95437

RE: CDP #1-2013, USP #1-2013, DR #1-2013 (Avalon Hotel – Hunt InnVestments)  
– Emissions Analysis  
1201 & 1211 North Main Street  
Fort Bragg CA 95437  
APNs 069-241-27-00 & -38-00

Dear Sarah,

Thank you for your continued consideration and review of this project.

Enclosed, please find our “Air Quality and GHG Emissions Analysis,” dated March 2020, prepared by SHN.

Most of the Mitigation Measures noted in the sections listed below are already in our proposed project, either in our project description or in our desired goals. As the Mitigation Measures are not itemized in the Report Summary, please see a summary of same below.

Section 3.1 MMs Construction

- water exposed area [essentially, water bare ground during construction activities to keep dust from being fugitive]

Section 4.1 MMs Mobile

- Improve pedestrian network [trail easement to haul road]
- Limit parking supply [in project description]

Section 6.1 MMs Area

- Use low VOC paints, interior
- Use low VOC paints, exterior
- No hearths installed

Section 7.1 MMs Water

- Install low flow fixtures
- Use water efficient irrigation system

Section 8.1 MMs Waste

- Institute Recycling & Composting Services [recycling is in project description; waste management service includes composting]

We look forward to working the final stages of planning approvals for this project.

Please feel free to contact us with any questions that you may have.

All the best,

Amy Wynn  
Principal Planner

Encl: Avalon Air Quality & GHG Emissions Analysis, SHN

CC: Bob Hunt, Hunt InnVestments (applicant); Lisa Glidewell, Epikos (architect); file

# Air Quality and GHG Emissions Analysis

**The Avalon Hotel  
Fort Bragg, CA**



Prepared for:

**Wynn Coastal Planning**



**March 2020**

**414054**

Reference: 414054

# Air Quality and GHG Emissions Analysis

## The Avalon Hotel Fort Bragg, CA

Prepared for:  
**Wynn Coastal Planning**

Prepared by:



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March 2020

QA/QC:CG

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## Abbreviations and Acronyms

ft.	feet
in.	inches
gpm	gallons per minute
MT	metric tons
s.f.	square feet
tpy	tons per year
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officer's Association
CARB	California Air Resources Board
C <sub>2</sub> H <sub>3</sub> C1	Vinyl Chloride
CEQA	California Environmental Quality Act
CH <sub>4</sub>	methane
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
EPA	U.S. Environmental Protection Agency
GHG	greenhouse gas
H <sub>2</sub> S	Hydrogen Sulfide
MCAQMD	Mendocino County Air Quality Management District
NAAQS	National Ambient Air Quality Standards
NCAB	North Coast Air Basin
n/d	no data available
NOx	nitrogen oxides
N <sub>2</sub> O	nitrous oxide
NO <sub>2</sub>	nitrogen dioxide
O <sub>3</sub>	ozone
Pb	lead
PM	particulate matter
ROG	reactive organic gases
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO <sub>2</sub>	sulfur dioxide
SO <sub>4</sub>	sulfates
VOC	volatile organic compounds

## Project Summary

The Avalon Hotel Project proposes the construction of a 65-unit hotel (comprised of three 3-story buildings, with maximum heights of 35 feet [ft.]), Restaurant (660 square feet [s.f.] net dining area; 63 seats), Cocktail Bar/Lounge (814 s.f. of indoor/outdoor bar/lounge area; 28 seats) (both located in hotel Building 1), and accompanying 3,064 s.f. Event Center (separate, detached single-story building). Other components of the project include the following:

- Development of parking lot (75 vehicular spaces, 2 motorcycle spaces) with two driveways onto Main Street/Highway 1;
- Installation of terrace, paved walkways, and raised boardwalks with interpretative signage and 15 bicycle parking spaces;
- Landscaping (drought tolerant horticultural); low mounds (2-4 ft.) between the hotel structures and Main Street, 6-ft. stone-faced wall between the Event Center and Main Street, and 6 inches (in.) to 4-ft. tall stone-faced retaining wall between Building 3 and Main Street;
- Installation of utilities including: undergrounding existing electrical lines; installation of underground 500-gallon propane tank; fire hydrant; connection to public utilities including City water, sewer, and stormwater system; use of water tanks, with 120,000 gallons of capacity, to be temporarily installed offsite dedicated to fire suppression for this property, to cover the 1,000 gallons per minute (gpm) deficit in fire flow capacity until the City completes their North of Pudding Creek water infrastructure project;
- Installation of two 6 ft. tall freestanding signs (double-sided, consisting of two 34.5-s.f., back-to-back sign faces), exterior lighting (shielded, downcast on buildings and walkways; parking lighting per City standards), dumpster and recycling enclosure;
- Install Low-Impact Design features, including rainwater harvesting system, stormwater detention ponds and vegetated drainage swales;
- Decommissioning of existing onsite wells, development of replacement well for supplemental non-potable water supply (alternatively, decommission northerly onsite well, connect southerly well to landscape irrigation system), demolition of existing garage and removal of existing pavement and invasive species; removal of existing Fort Bragg Welcome sign;
- Installation of turn lane within Main Street/Highway 1 to accommodate northbound traffic entering the project's southerly driveway, comprised of: two 11 ft. travel lanes, an 11 ft. turn lane, 2 ft. shoulder on the western side of the facility, with appurtenant tapers and striping (requires approximately 2,185 s.f. of new asphalt paving); and
- Improvement and protection of the quality of the existing wetlands and their buffer areas, including: contour topography within wetland buffers, rip and amend compacted substrate within northern wetland buffer, invasive plant removal, establish native plants to increase biodiversity and provide screening, adaptation management, and monitoring.

## Attainment-Area Designation

The Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for six common air pollutants (also known as “criteria air pollutants”) (EPA, 2018). These pollutants include ozone ( $O_3$ ), carbon monoxide (CO), nitrogen dioxide ( $NO_2$ ), sulfur dioxide ( $SO_2$ ), particulate matter (PM), and lead (Pb). Concentrations of criteria air pollutants are used as indicators of ambient air quality conditions.

The project site is located in Mendocino County, which is in the southern portion of the North Coast Air Basin (NCAB). Ambient air quality in Mendocino County, and thus at the project site, can be inferred from ambient air quality measurements conducted at air quality monitoring stations. Existing levels of ambient air quality and historical trends and projections in the region are documented by measurements made by the Mendocino County Air Quality Management District (MCAQMD), which is the air pollution regulatory agency for the portion of the NCAB in Mendocino County. Table 1 shows the attainment status of Mendocino County with respect to NAAQS (California Air Resources Board [CARB], 2018) and California Ambient Air Quality Standards (CAAQS) (CARB, 2018). The three basic designation categories are “non-attainment,” “attainment,” and “unclassified.” The attainment designation means that an area meets the national or state ambient air quality standards for a given criteria air pollutant. The non-attainment designation means that an area exceeds the national or state ambient air quality standards for a given criteria air pollutant. The unclassified designation is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards.

**Table 1. Attainment Status Summary  
Mendocino County, California**

Criteria Pollutants	Federal Designation	State Designation
Ozone ( $O_3$ ) (1-hour)	(no federal standard)	Unclassified
Ozone ( $O_3$ ) (8-hour)	Unclassified/Attainment	Unclassified
Nitrogen Dioxide ( $NO_2$ )	Unclassified/Attainment	Unclassified/Attainment
Sulfur Dioxide ( $SO_2$ )	Unclassified/Attainment	Unclassified/Attainment
Carbon Monoxide (CO)	Unclassified/Attainment	Unclassified
Particulates (as $PM_{10}$ )	Unclassified	Unclassified
Particulates (as $PM_{2.5}$ )	Unclassified/Attainment	Unclassified
Lead (Pb)	Unclassified/Attainment	Unclassified/Attainment
Sulfates (as $SO_4$ )	(no federal standard)	Unclassified/Attainment
Hydrogen Sulfide ( $H_2S$ )	(no federal standard)	Unclassified
Vinyl Chloride ( $C_2H_3Cl$ )	(no federal standard)	n/d <sup>1</sup>
Visibility Reducing Particles	(no federal standard)	Unclassified

1. n/d = no data available

As indicated in Table 1, Mendocino County is designated as attainment or unclassified for all federal and state ambient air quality standards (CARB, 2018). In the past, Mendocino County was designated as non-attainment for the State standard for particulate matter less than 10 microns in size ( $PM_{10}$ ). The MCAQMD adopted a Particulate Matter (PM) Attainment Plan in 2005 that includes a description of local air quality, the sources of local PM emissions, and recommended control measure to reduce future PM levels (MCAQMD, 2005).

## Air District Significance Thresholds

As noted above, the project is located in the NCAB and is subject to the jurisdiction of the MCAQMD. In determining whether a project has significant air quality and greenhouse gas (GHG) emissions impacts on the environment, planners typically apply the local air district's California Environmental Quality Act (CEQA) thresholds of significance to projects during the environmental review process. To assist in the evaluation of air quality and GHG impacts, the MCAQMD has adopted air quality thresholds for determination of impact significance. The thresholds of significance for criteria air pollutants and GHG emissions are summarized in Table 2.

**Table 2. MCAQMD Thresholds of Significance**

Pollutant	Construction Related	Operational Related		
	Average Daily Emissions (lb/day) <sup>1</sup>	Indirect Average Daily Emissions (lb/day)	Stationary Maximum Annual Emissions (tpy) <sup>2</sup>	
ROG <sup>3</sup>	54	180	40	
NOx	54	42	40	
PM <sub>10</sub>	82	82	15	
PM <sub>2.5</sub>	54	54	10	
Fugitive Dust (PM <sub>10</sub> /PM <sub>2.5</sub> )	Best Management Practices	Same as Above		
Local CO	None	125 tpy		
GHG's	None	1,100 Metric Tons of CO <sub>2</sub> e/yr		

1. Lb/day: pounds per day  
 2. Tpy: tons per year  
 3. ROG: reactive organic gases

## Emissions Modeling

As with any new development project, the proposed project has the potential to generate pollutant concentrations during both construction activities and long-term operation. Both construction and operational emissions for the proposed project were estimated using the California Emissions Estimator Model (CalEEMod), which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies to quantify potential criteria air pollutant and GHG emissions associated with both construction and operation of a variety of land use projects (California Air Pollution Control Officer's Association [CAPCOA], 2017; Appendix 1). The results of the proposed project's emissions estimations were compared to the MCAQMD thresholds of significance identified in Table 2. Tables 3 through 6 show the MCAQMD thresholds compared to the proposed project's construction and operational emissions of criteria air pollutants and greenhouse gases (unmitigated).

**Table 3. Average Daily Construction Emissions (Unmitigated)**

Construction Year	Average Daily Emissions (pounds per day) <sup>1,2</sup>					
	ROG	NOx	CO	SOx	PM <sub>10</sub>	PM <sub>2.5</sub>
2020	2.5	18.4	16.4	0.03	1.7	1.1
2021	12.1	13.6	14.4	0.03	1.05	0.71
Highest Emissions in Any Year	12.1	18.4	16.4	0.03	1.7	1.1
Significance Threshold	54	54	NA	NA	82	54
Exceeds Significance Threshold?	No	No	NA	NA	No	No

Source: MCAQMD, 2010; CAPCOA, 2017

1. The MCAQMD recommends that for construction projects that are less than one-year duration, Lead Agencies should annualize impacts over the scope of actual days that peak impacts are to occur, rather than the full year (MCAQMD, 2010).

2. Average Daily Emissions calculated using the following equation: *Average Daily Emissions = Total Annual Emissions from CalEEMod modeling results in tons per year (tpy) x 2,000 lbs/ton / Estimated Number of Workdays Per Year from Construction Schedule*. It is estimated that each year will have the following number of workdays: 2020 = 132 workdays and 2021 = 117 workdays. This is based on an assumed 22 workdays per month.



**Table 4. Stationary Source Operational Emissions (Unmitigated)**

Stationary Emissions Source	Maximum Annual Emissions (tons per year) <sup>1</sup>					
	ROG	NOx	CO	SOx	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Area Source</b>	0.26	1.0e5	1.3e3	0.000	0.000	0.000
<b>Significance Threshold</b>	40	40	125	NA	15	10
<b>Exceeds Significance Threshold?</b>	No	No	NA	NA	No	No

Source: MCAQMD, 2010; CAPCOA, 2017  
1. Maximum Annual Emissions in tons per year (tpy) from CalEEMod modeling results.

**Table 5. Indirect Operational Emissions (Unmitigated)**

Indirect Emissions Source	Average Daily Emissions (pounds per day) <sup>1,2</sup>					
	ROG	NOx	CO	SOx	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Energy Use</b>	0.03	0.32	0.27	1.9e3	0.24	0.24
<b>Mobile Source</b>	1.74	9.91	17.21	0.04	2.44	0.69
<b>Total</b>	<b>1.77</b>	<b>10.23</b>	<b>17.48</b>	<b>0.04</b>	<b>2.68</b>	<b>0.93</b>
<b>Significance Threshold<sup>3</sup></b>	180	42	125	NA	82	54
<b>Exceeds Significance Threshold</b>	No	No	No	NA	No	No

Source: MCAQMD, 2010; CAPCOA, 2017  
1. Average Daily Emissions calculated using the following equation: *Average Daily Emissions = Total Annual Emissions from CalEEMod modeling results in tons per year x 2,000 lbs/ton / 365 days per year.*  
2. Table results include scientific notation. The character “e” is used to represent time ten raised to the power of (which would be written as x10b11) and is followed by the value of the component.  
3. The threshold of significance for CO is 125 tons per year (tpy) for both indirect and stationary emissions sources. As such, the emissions results for CO are shown above in tpy and compared to the 125 tpy threshold.

**Table 6. GHG Emissions (Unmitigated)**

Emissions Source	Emission (MT/year) <sup>1,2</sup>			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total CO <sub>2</sub> e <sup>2</sup>
<b>Construction<sup>3</sup></b>	306.96	0.05	0.00	308.15
<b>Operation</b>	830.28	0.56	3.92e3	845.43
<b>Significance Threshold</b>	1,100 Metric Tons of CO <sub>2</sub> e/yr			
<b>Exceeds Significance Threshold</b>	Construction = No <sup>3</sup> /Operation = No			

Source: MCAQMD, 2010; CAPCOA, 2017  
1. Table results include scientific notation. The character “e” is used to represent time ten raised to the power of (which would be written as x10b11) and is followed by the value of the component.  
2. Totals obtained from CalEEMod modeling results and may not total 100% due to rounding.  
3. Although the MCAQMD has not adopted a significance threshold for construction GHG emissions, the operational threshold (1,000 MTCO<sub>2</sub>e/yr) is used for the purpose of this analysis. This is consistent with the methodology used by other air districts in the state including the Sacramento Metropolitan Air Quality Management District (SMAQMD). For the purpose of this analysis, construction emission from 2020 and 2021 are added together and compared to the threshold.

As indicated in Tables 3 through 5, the construction and operational emissions from the proposed project are below the MCAQMD significance thresholds for criteria air pollutants. As indicated in Table 6, the GHG emissions from construction and operation of the proposed project are below the MCAQMD significance thresholds for GHG emissions.

## Conclusion

The proposed project would occur in Mendocino County, which is designated as attainment or unclassified for all federal and state ambient air quality standards (CARB, 2018). As discussed above, construction and operational emissions from the proposed project are below the MCAQMD significance thresholds for criteria air pollutants and GHG emissions. Therefore, the proposed project would result in less than significant impacts related to the emissions of criteria air pollutants and greenhouse gases.

## References

- California Air Pollution Control Officer's Association. (CAPCOA). (2017). *California Emissions Estimate Model (CalEEMod)*. Version 2016.3.2. Model for project used on March 12, 2020.
- California Air Resources Board (CARB). (2018). *Area Designations Map / State and National*. Accessed March 12, 2020 at: <https://ww3.arb.ca.gov/desig/adm/adm.htm>.
- Mendocino County AQMD. 2005. *Particulate Matter Attainment Plan*. Accessed March 12, 2020 at: <https://www.co.mendocino.ca.us/aqmd/pm-attainment.html>.
- Mendocino County AQMD. 2010. *Adopted Air Quality CEQA Thresholds of Significance – June 2, 2010*. Accessed March 12, 2020 at: [http://www.co.mendocino.ca.us/aqmd/pdf\\_files/MCAQMDCEQARecomendations.pdf](http://www.co.mendocino.ca.us/aqmd/pdf_files/MCAQMDCEQARecomendations.pdf).
- U.S. Environmental Protection Agency. (EPA). (2018). Six common air pollutants. Accessed March 12, 2020 at: <https://www.epa.gov/criteria-air-pollutants>.

# **CalEEMod Modeling Results – Annual Report**

**1**

## The Avalon Hotel Project - Mendocino-Coastal County, Annual

**The Avalon Hotel Project**  
**Mendocino-Coastal County, Annual**

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	65.00	Room	1.02	48,500.00	0
Quality Restaurant	1.48	1000sqft	0.03	1,480.00	0
Parking Lot	76.00	Space	0.68	30,400.00	0
Other Asphalt Surfaces	2.20	1000sqft	0.05	2,200.00	0

### 1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	86
Climate Zone	1			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

### 1.3 User Entered Comments & Non-Default Data

## The Avalon Hotel Project - Mendocino-Coastal County, Annual

## Project Characteristics -

Land Use - Revised per project plans. 53 percent of the project site (158,994 s.f./3.65 ac.) is ESHA. 'Quality Restaurant' includes 660 s.f. restaurant and 814 s.f. cocktail bar/lounge. Parking includes 75 vehicle spaces and 2 motorcycle spaces. 'Other Asphalt Surfaces' includes installation of a turn lane within Main Street/Highway 1 that will require approximately 2,185 s.f. of new asphalt paving.

Grading - Import-Export quantities provided by Project Engineer.

Demolition - For removal of existing asphalt pavement and a small structure.

On-road Fugitive Dust - Default value modified to reflect the developed nature of the Fort Bragg area. The modified value is consistent with the value used for other more developed coastal areas in the North Coast Air Basin (e.g., Humboldt County and Del Norte County).

Road Dust - Default value modified to reflect the developed nature of the Fort Bragg area. The modified value is consistent with the value used for other more developed coastal areas in the North Coast Air Basin (e.g., Humboldt County and Del Norte County).

Sequestration - Number and type of trees per landscaping plan.

Construction Off-road Equipment Mitigation - Dust control BMPs, including water of exposed areas twice daily, will be implemented during construction activity.

Mobile Land Use Mitigation - Project site will be connected to the California State Parks Coastal Trail on the western boundary of the site. Vehicle parking will be reduced from 85 to 75 spaces.

## Area Mitigation -

Water Mitigation - EPA Water Sense low-flow plumbing fixtures will be installed in the hotel rooms. Drought tolerant plant species will be used for landscaping.

Waste Mitigation - The hotel will receive recycling and composting service, which is conservatively assumed to reduce solid waste by 20 percent.

Construction Phase - Increased days of paving for the installation of a turn lane within Main Street/Highway 101.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	10.00	14.00
tblConstructionPhase	PhaseEndDate	5/26/2021	6/1/2021
tblGrading	MaterialExported	0.00	920.00
tblGrading	MaterialImported	0.00	1,850.00
tblLandUse	LandUseSquareFeet	94,380.00	48,500.00
tblLandUse	LotAcreage	2.17	1.02
tblOnRoadDust	HaulingPercentPave	70.00	100.00
tblOnRoadDust	HaulingPercentPave	70.00	100.00

## The Avalon Hotel Project - Mendocino-Coastal County, Annual

tblOnRoadDust	HaulingPercentPave	70.00	100.00
tblOnRoadDust	HaulingPercentPave	70.00	100.00
tblOnRoadDust	HaulingPercentPave	70.00	100.00
tblOnRoadDust	HaulingPercentPave	70.00	100.00
tblOnRoadDust	VendorPercentPave	70.00	100.00
tblOnRoadDust	VendorPercentPave	70.00	100.00
tblOnRoadDust	VendorPercentPave	70.00	100.00
tblOnRoadDust	VendorPercentPave	70.00	100.00
tblOnRoadDust	VendorPercentPave	70.00	100.00
tblOnRoadDust	VendorPercentPave	70.00	100.00
tblOnRoadDust	VendorPercentPave	70.00	100.00
tblOnRoadDust	WorkerPercentPave	70.00	100.00
tblOnRoadDust	WorkerPercentPave	70.00	100.00
tblOnRoadDust	WorkerPercentPave	70.00	100.00
tblOnRoadDust	WorkerPercentPave	70.00	100.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	70	100
tblSequestration	NumberOfNewTrees	0.00	40.00

**2.0 Emissions Summary**

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## The Avalon Hotel Project - Mendocino-Coastal County, 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					
2020	0.1631	1.2155	1.0856	2.0600e-003	0.0540	0.0570	0.1110	0.0176	0.0546	0.0722	0.0000	177.0202	177.0202	0.0276	0.0000	177.7097	
2021	0.7064	0.7949	0.8437	1.5300e-003	0.0253	0.0361	0.0614	6.8300e-003	0.0347	0.0415	0.0000	129.9392	129.9392	0.0200	0.0000	130.4392	
Maximum	0.7064	1.2155	1.0856	2.0600e-003	0.0540	0.0570	0.1110	0.0176	0.0546	0.0722	0.0000	177.0202	177.0202	0.0276	0.0000	177.7097	

**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					
2020	0.1631	1.2155	1.0856	2.0600e-003	0.0419	0.0570	0.0989	0.0127	0.0546	0.0673	0.0000	177.0200	177.0200	0.0276	0.0000	177.7096	
2021	0.7064	0.7949	0.8437	1.5300e-003	0.0253	0.0361	0.0614	6.8300e-003	0.0347	0.0415	0.0000	129.9391	129.9391	0.0200	0.0000	130.4391	
Maximum	0.7064	1.2155	1.0856	2.0600e-003	0.0419	0.0570	0.0989	0.0127	0.0546	0.0673	0.0000	177.0200	177.0200	0.0276	0.0000	177.7096	

  

	ROG	NOx	CO	SO2	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	15.20	0.00	6.99	20.12	0.00	4.33	0.00	0.00	0.00	0.00	0.00	0.00

## The Avalon Hotel Project - Mendocino-Coastal County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)				Maximum Mitigated ROG + NOX (tons/quarter)			
1	7-1-2020	9-30-2020	0.7298				0.7298			
2	10-1-2020	12-31-2020	0.6418				0.6418			
3	1-1-2021	3-31-2021	0.5770				0.5770			
4	4-1-2021	6-30-2021	0.9302				0.9302			
		Highest	0.9302				0.9302			

**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	0.2565	1.0000e-005	1.3300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5900e-003	2.5900e-003	1.0000e-005	0.0000	2.7600e-003	
Energy	6.3600e-003	0.0578	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	181.8357	181.8357	6.5800e-003	2.2700e-003	182.6756	
Mobile	0.3180	1.8077	3.1400	6.9300e-003	0.4365	9.3900e-003	0.4459	0.1175	8.8700e-003	0.1264	0.0000	636.7597	636.7597	0.0410	0.0000	637.7855	
Waste						0.0000	0.0000		0.0000	0.0000	7.4985	0.0000	7.4985	0.4432	0.0000	18.5772	
Water						0.0000	0.0000		0.0000	0.0000	0.6656	3.5184	4.1840	0.0685	1.6500e-003	6.3880	
Total	0.5809	1.8655	3.1899	7.2800e-003	0.4365	0.0138	0.4503	0.1175	0.0133	0.1308	8.1641	822.1164	830.2805	0.5593	3.9200e-003	845.4289	

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**2.2 Overall Operational****Mitigated Operational**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr															MT/yr	
Area	0.2565	1.0000e-005	1.3300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5900e-003	2.5900e-003	1.0000e-005	0.0000	2.7600e-003
Energy	6.3600e-003	0.0578	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	181.8357	181.8357	6.5800e-003	2.2700e-003	182.6756
Mobile	0.3109	1.7382	2.9858	6.4700e-003	0.4021	8.7800e-003	0.4109	0.1083	8.2900e-003	0.1166	0.0000	594.9757	594.9757	0.0394	0.0000	595.9610
Waste						0.0000	0.0000		0.0000	0.0000	5.9988	0.0000	5.9988	0.3545	0.0000	14.8618
Water						0.0000	0.0000		0.0000	0.0000	0.5541	2.9517	3.5057	0.0570	1.3700e-003	5.3404
Total	0.5738	1.7960	3.0357	6.8200e-003	0.4021	0.0132	0.4153	0.1083	0.0127	0.1209	6.5529	779.7657	786.3186	0.4576	3.6400e-003	798.8415

	ROG	NOx	CO	SO2	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	1.22	3.72	4.83	6.32	7.88	4.43	7.77	7.88	4.37	7.52	19.74	5.15	5.29	18.19	7.14	5.51

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**2.3 Vegetation****Vegetation**

	CO2e
Category	MT
New Trees	25.5200
Total	25.5200

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2020	7/28/2020	5	20	
2	Site Preparation	Site Preparation	7/29/2020	7/30/2020	5	2	
3	Grading	Grading	7/31/2020	8/5/2020	5	4	
4	Building Construction	Building Construction	8/6/2020	5/12/2021	5	200	
5	Paving	Paving	5/13/2021	6/1/2021	5	14	
6	Architectural Coating	Architectural Coating	5/27/2021	6/9/2021	5	10	

**Acres of Grading (Site Preparation Phase): 1****Acres of Grading (Grading Phase): 1.5****Acres of Paving: 0.73**

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**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 74,970; Non-Residential Outdoor: 24,990; Striped Parking Area: 1,956 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

**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
Demolition	5	13.00	0.00	55.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	115.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	231.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	35.00	14.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

**3.2 Demolition - 2020****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					6.0900e-003	0.0000	6.0900e-003	9.2000e-004	0.0000	9.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0677	21.0677	5.4200e-003	0.0000	21.2031
Total	0.0213	0.2095	0.1466	2.4000e-004	6.0900e-003	0.0115	0.0176	9.2000e-004	0.0108	0.0117	0.0000	21.0677	21.0677	5.4200e-003	0.0000	21.2031

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**3.2 Demolition - 2020****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	2.5000e-004	8.2900e-003	1.4900e-003	2.0000e-005	4.6000e-004	4.0000e-004	5.0000e-005	1.3000e-004	4.0000e-005	1.6000e-004	0.0000	2.0962	2.0962	6.0000e-005	0.0000	2.0977	
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	1.5400e-003	1.4000e-003	0.0116	2.0000e-005	1.5800e-003	2.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.4173	1.4173	1.0000e-004	0.0000	1.4199	
<b>Total</b>	<b>1.7900e-003</b>	<b>9.6900e-003</b>	<b>0.0130</b>	<b>4.0000e-005</b>	<b>2.0400e-003</b>	<b>6.0000e-005</b>	<b>2.0900e-003</b>	<b>5.5000e-004</b>	<b>5.0000e-005</b>	<b>5.9000e-004</b>	<b>0.0000</b>	<b>3.5135</b>	<b>3.5135</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>3.5176</b>	

**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					2.7400e-003	0.0000	2.7400e-003	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0676	21.0676	5.4200e-003	0.0000	21.2030	
<b>Total</b>	<b>0.0213</b>	<b>0.2095</b>	<b>0.1466</b>	<b>2.4000e-004</b>	<b>2.7400e-003</b>	<b>0.0115</b>	<b>0.0143</b>	<b>4.1000e-004</b>	<b>0.0108</b>	<b>0.0112</b>	<b>0.0000</b>	<b>21.0676</b>	<b>21.0676</b>	<b>5.4200e-003</b>	<b>0.0000</b>	<b>21.2030</b>	

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**3.2 Demolition - 2020****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	2.5000e-004	8.2900e-003	1.4900e-003	2.0000e-005	4.6000e-004	4.0000e-004	5.0000e-004	1.3000e-004	4.0000e-005	1.6000e-004	0.0000	2.0962	2.0962	6.0000e-005	0.0000	2.0977	
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	1.5400e-003	1.4000e-003	0.0116	2.0000e-005	1.5800e-003	2.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.4173	1.4173	1.0000e-004	0.0000	1.4199	
Total	1.7900e-003	9.6900e-003	0.0130	4.0000e-005	2.0400e-003	6.0000e-005	2.0900e-003	5.5000e-004	5.0000e-005	5.9000e-004	0.0000	3.5135	3.5135	1.6000e-004	0.0000	3.5176	

**3.3 Site Preparation - 2020****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					5.8700e-003	0.0000	5.8700e-003	2.9600e-003	0.0000	2.9600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	1.6300e-003	0.0184	7.7100e-003	2.0000e-005		8.2000e-004	8.2000e-004		7.6000e-004	7.6000e-004	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249	
Total	1.6300e-003	0.0184	7.7100e-003	2.0000e-005	5.8700e-003	8.2000e-004	6.6900e-003	2.9600e-003	7.6000e-004	3.7200e-003	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249	

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**3.3 Site Preparation - 2020****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	5.3000e-004	0.0173	3.1100e-003	5.0000e-005	9.6000e-004	8.0000e-005	1.0400e-003	2.6000e-004	8.0000e-005	3.4000e-004	0.0000	4.3829	4.3829	1.3000e-004	0.0000	4.3862	
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	9.0000e-005	9.0000e-005	7.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0872	0.0872	1.0000e-005	0.0000	0.0874	
<b>Total</b>	<b>6.2000e-004</b>	<b>0.0174</b>	<b>3.8200e-003</b>	<b>5.0000e-005</b>	<b>1.0600e-003</b>	<b>8.0000e-005</b>	<b>1.1400e-003</b>	<b>2.9000e-004</b>	<b>8.0000e-005</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>4.4701</b>	<b>4.4701</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>4.4735</b>	

**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					2.6400e-003	0.0000	2.6400e-003	1.3300e-003	0.0000	1.3300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	1.6300e-003	0.0184	7.7100e-003	2.0000e-005		8.2000e-004	8.2000e-004		7.6000e-004	7.6000e-004	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249	
<b>Total</b>	<b>1.6300e-003</b>	<b>0.0184</b>	<b>7.7100e-003</b>	<b>2.0000e-005</b>	<b>2.6400e-003</b>	<b>8.2000e-004</b>	<b>3.4600e-003</b>	<b>1.3300e-003</b>	<b>7.6000e-004</b>	<b>2.0900e-003</b>	<b>0.0000</b>	<b>1.5127</b>	<b>1.5127</b>	<b>4.9000e-004</b>	<b>0.0000</b>	<b>1.5249</b>	

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**3.3 Site Preparation - 2020****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	5.3000e-004	0.0173	3.1100e-003	5.0000e-005	9.6000e-004	8.0000e-005	1.0400e-003	2.6000e-004	8.0000e-005	3.4000e-004	0.0000	4.3829	4.3829	1.3000e-004	0.0000	4.3862	
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	9.0000e-005	9.0000e-005	7.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0872	0.0872	1.0000e-005	0.0000	0.0874	
Total	6.2000e-004	0.0174	3.8200e-003	5.0000e-005	1.0600e-003	8.0000e-005	1.1400e-003	2.9000e-004	8.0000e-005	3.7000e-004	0.0000	4.4701	4.4701	1.4000e-004	0.0000	4.4735	

**3.4 Grading - 2020****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					9.9700e-003	0.0000	9.9700e-003	5.0700e-003	0.0000	5.0700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	2.7000e-003	0.0302	0.0129	3.0000e-005		1.3700e-003	1.3700e-003		1.2600e-003	1.2600e-003	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980	
Total	2.7000e-003	0.0302	0.0129	3.0000e-005	9.9700e-003	1.3700e-003	0.0113	5.0700e-003	1.2600e-003	6.3300e-003	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980	

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**3.4 Grading - 2020****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	1.0700e-003	0.0348	6.2500e-003	9.0000e-005	1.9300e-003	1.6000e-004	2.0900e-003	5.3000e-004	1.6000e-004	6.9000e-004	0.0000	8.8038	8.8038	2.7000e-004	0.0000	8.8105	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	1.9000e-004	1.7000e-004	1.4200e-003	0.0000	1.9000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1744	0.1744	1.0000e-005	0.0000	0.1748	
<b>Total</b>	<b>1.2600e-003</b>	<b>0.0350</b>	<b>7.6700e-003</b>	<b>9.0000e-005</b>	<b>2.1200e-003</b>	<b>1.6000e-004</b>	<b>2.2900e-003</b>	<b>5.8000e-004</b>	<b>1.6000e-004</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>8.9783</b>	<b>8.9783</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>8.9852</b>	

**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					4.4800e-003	0.0000	4.4800e-003	2.2800e-003	0.0000	2.2800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	2.7000e-003	0.0302	0.0129	3.0000e-005		1.3700e-003	1.3700e-003		1.2600e-003	1.2600e-003	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980	
<b>Total</b>	<b>2.7000e-003</b>	<b>0.0302</b>	<b>0.0129</b>	<b>3.0000e-005</b>	<b>4.4800e-003</b>	<b>1.3700e-003</b>	<b>5.8500e-003</b>	<b>2.2800e-003</b>	<b>1.2600e-003</b>	<b>3.5400e-003</b>	<b>0.0000</b>	<b>2.4779</b>	<b>2.4779</b>	<b>8.0000e-004</b>	<b>0.0000</b>	<b>2.4980</b>	

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**3.4 Grading - 2020****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	1.0700e-003	0.0348	6.2500e-003	9.0000e-005	1.9300e-003	1.6000e-004	2.0900e-003	5.3000e-004	1.6000e-004	6.9000e-004	0.0000	8.8038	8.8038	2.7000e-004	0.0000	8.8105	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	1.9000e-004	1.7000e-004	1.4200e-003	0.0000	1.9000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1744	0.1744	1.0000e-005	0.0000	0.1748	
Total	1.2600e-003	0.0350	7.6700e-003	9.0000e-005	2.1200e-003	1.6000e-004	2.2900e-003	5.8000e-004	1.6000e-004	7.4000e-004	0.0000	8.9783	8.9783	2.8000e-004	0.0000	8.9852	

**3.5 Building Construction - 2020****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	0.1076	0.7838	0.6990	1.1700e-003		0.0422	0.0422		0.0408	0.0408	0.0000	96.2173	96.2173	0.0179	0.0000	96.6639	
Total	0.1076	0.7838	0.6990	1.1700e-003		0.0422	0.0422		0.0408	0.0408	0.0000	96.2173	96.2173	0.0179	0.0000	96.6639	

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**3.5 Building Construction - 2020****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	4.2800e-003	0.0917	0.0300	2.0000e-004	4.3500e-003	6.0000e-004	4.9500e-003	1.2600e-003	5.7000e-004	1.8300e-003	0.0000	18.5587	18.5587	9.9000e-004	0.0000	18.5834	
Worker	0.0220	0.0201	0.1649	2.3000e-004	0.0225	2.2000e-004	0.0227	5.9900e-003	2.0000e-004	6.1900e-003	0.0000	20.2240	20.2240	1.4500e-003	0.0000	20.2603	
<b>Total</b>	<b>0.0262</b>	<b>0.1117</b>	<b>0.1949</b>	<b>4.3000e-004</b>	<b>0.0268</b>	<b>8.2000e-004</b>	<b>0.0277</b>	<b>7.2500e-003</b>	<b>7.7000e-004</b>	<b>8.0200e-003</b>	<b>0.0000</b>	<b>38.7828</b>	<b>38.7828</b>	<b>2.4400e-003</b>	<b>0.0000</b>	<b>38.8436</b>	

**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	0.1076	0.7838	0.6990	1.1700e-003		0.0422	0.0422		0.0408	0.0408	0.0000	96.2172	96.2172	0.0179	0.0000	96.6638	
<b>Total</b>	<b>0.1076</b>	<b>0.7838</b>	<b>0.6990</b>	<b>1.1700e-003</b>		<b>0.0422</b>	<b>0.0422</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>96.2172</b>	<b>96.2172</b>	<b>0.0179</b>	<b>0.0000</b>	<b>96.6638</b>	

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**3.5 Building Construction - 2020****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	4.2800e-003	0.0917	0.0300	2.0000e-004	4.3500e-003	6.0000e-004	4.9500e-003	1.2600e-003	5.7000e-004	1.8300e-003	0.0000	18.5587	18.5587	9.9000e-004	0.0000	18.5834	
Worker	0.0220	0.0201	0.1649	2.3000e-004	0.0225	2.2000e-004	0.0227	5.9900e-003	2.0000e-004	6.1900e-003	0.0000	20.2240	20.2240	1.4500e-003	0.0000	20.2603	
Total	0.0262	0.1117	0.1949	4.3000e-004	0.0268	8.2000e-004	0.0277	7.2500e-003	7.7000e-004	8.0200e-003	0.0000	38.7828	38.7828	2.4400e-003	0.0000	38.8436	

**3.5 Building Construction - 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					
Off-Road	0.0852	0.6409	0.6063	1.0400e-003		0.0322	0.0322		0.0311	0.0311	0.0000	85.3274	85.3274	0.0152	0.0000	85.7082	
Total	0.0852	0.6409	0.6063	1.0400e-003		0.0322	0.0322		0.0311	0.0311	0.0000	85.3274	85.3274	0.0152	0.0000	85.7082	

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**3.5 Building Construction - 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	3.2500e-003	0.0748	0.0238	1.7000e-004	3.8600e-003	3.1000e-004	4.1700e-003	1.1200e-003	2.9000e-004	1.4100e-003	0.0000	16.3443	16.3443	8.2000e-004	0.0000	16.3648	
Worker	0.0186	0.0162	0.1324	1.9000e-004	0.0199	1.9000e-004	0.0201	5.3100e-003	1.7000e-004	5.4800e-003	0.0000	17.4210	17.4210	1.1600e-003	0.0000	17.4500	
<b>Total</b>	<b>0.0218</b>	<b>0.0910</b>	<b>0.1562</b>	<b>3.6000e-004</b>	<b>0.0238</b>	<b>5.0000e-004</b>	<b>0.0243</b>	<b>6.4300e-003</b>	<b>4.6000e-004</b>	<b>6.8900e-003</b>	<b>0.0000</b>	<b>33.7653</b>	<b>33.7653</b>	<b>1.9800e-003</b>	<b>0.0000</b>	<b>33.8148</b>	

**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	0.0852	0.6409	0.6063	1.0400e-003		0.0322	0.0322		0.0311	0.0311	0.0000	85.3273	85.3273	0.0152	0.0000	85.7081	
<b>Total</b>	<b>0.0852</b>	<b>0.6409</b>	<b>0.6063</b>	<b>1.0400e-003</b>		<b>0.0322</b>	<b>0.0322</b>		<b>0.0311</b>	<b>0.0311</b>	<b>0.0000</b>	<b>85.3273</b>	<b>85.3273</b>	<b>0.0152</b>	<b>0.0000</b>	<b>85.7081</b>	

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**3.5 Building Construction - 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	3.2500e-003	0.0748	0.0238	1.7000e-004	3.8600e-003	3.1000e-004	4.1700e-003	1.1200e-003	2.9000e-004	1.4100e-003	0.0000	16.3443	16.3443	8.2000e-004	0.0000	16.3648	
Worker	0.0186	0.0162	0.1324	1.9000e-004	0.0199	1.9000e-004	0.0201	5.3100e-003	1.7000e-004	5.4800e-003	0.0000	17.4210	17.4210	1.1600e-003	0.0000	17.4500	
Total	0.0218	0.0910	0.1562	3.6000e-004	0.0238	5.0000e-004	0.0243	6.4300e-003	4.6000e-004	6.8900e-003	0.0000	33.7653	33.7653	1.9800e-003	0.0000	33.8148	

**3.6 Paving - 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					
Off-Road	5.4200e-003	0.0542	0.0620	9.0000e-005		2.9100e-003	2.9100e-003		2.6800e-003	2.6800e-003	0.0000	8.2355	8.2355	2.6100e-003	0.0000	8.3008
Paving	9.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.3800e-003	0.0542	0.0620	9.0000e-005		2.9100e-003	2.9100e-003		2.6800e-003	2.6800e-003	0.0000	8.2355	8.2355	2.6100e-003	0.0000	8.3008

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**3.6 Paving - 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	1.0300e-003	8.9000e-004	7.3200e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9637	0.9637	6.0000e-005	0.0000	0.9653	
Total	1.0300e-003	8.9000e-004	7.3200e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9637	0.9637	6.0000e-005	0.0000	0.9653	

**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	5.4200e-003	0.0542	0.0620	9.0000e-005		2.9100e-003	2.9100e-003		2.6800e-003	2.6800e-003	0.0000	8.2355	8.2355	2.6100e-003	0.0000	8.3007	
Paving	9.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	6.3800e-003	0.0542	0.0620	9.0000e-005		2.9100e-003	2.9100e-003		2.6800e-003	2.6800e-003	0.0000	8.2355	8.2355	2.6100e-003	0.0000	8.3007	

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**3.6 Paving - 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	1.0300e-003	8.9000e-004	7.3200e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9637	0.9637	6.0000e-005	0.0000	0.9653	
Total	1.0300e-003	8.9000e-004	7.3200e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9637	0.9637	6.0000e-005	0.0000	0.9653	

**3.7 Architectural Coating - 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					
Archit. Coating	0.5905					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	0.5916	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788

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**3.7 Architectural Coating - 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	3.9000e-004	3.4000e-004	2.8200e-003	0.0000	4.2000e-004	0.0000	4.3000e-004	1.1000e-004	0.0000	1.2000e-004	0.0000	0.3707	0.3707	2.0000e-005	0.0000	0.3713	
<b>Total</b>	<b>3.9000e-004</b>	<b>3.4000e-004</b>	<b>2.8200e-003</b>	<b>0.0000</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>4.3000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.3707</b>	<b>0.3707</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.3713</b>	

**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	0.5905					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788	
<b>Total</b>	<b>0.5916</b>	<b>7.6300e-003</b>	<b>9.0900e-003</b>	<b>1.0000e-005</b>		<b>4.7000e-004</b>	<b>4.7000e-004</b>		<b>4.7000e-004</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>1.2766</b>	<b>1.2766</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>1.2788</b>	

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**3.7 Architectural Coating - 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	3.9000e-004	3.4000e-004	2.8200e-003	0.0000	4.2000e-004	0.0000	4.3000e-004	1.1000e-004	0.0000	1.2000e-004	0.0000	0.3707	0.3707	2.0000e-005	0.0000	0.3713	
Total	3.9000e-004	3.4000e-004	2.8200e-003	0.0000	4.2000e-004	0.0000	4.3000e-004	1.1000e-004	0.0000	1.2000e-004	0.0000	0.3707	0.3707	2.0000e-005	0.0000	0.3713	

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

Improve Pedestrian Network

Limit Parking Supply

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Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr										MT/yr						
Mitigated	0.3109	1.7382	2.9858	6.4700e-003	0.4021	8.7800e-003	0.4109	0.1083	8.2900e-003	0.1166	0.0000	594.9757	594.9757	0.0394	0.0000	595.9610
Unmitigated	0.3180	1.8077	3.1400	6.9300e-003	0.4365	9.3900e-003	0.4459	0.1175	8.8700e-003	0.1264	0.0000	636.7597	636.7597	0.0410	0.0000	637.7855

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Hotel	531.05	532.35	386.75	1,025,925	945,082		
Other Asphalt Surfaces	0.00	0.00	0.00				
Parking Lot	0.00	0.00	0.00				
Quality Restaurant	133.13	139.65	106.80	154,715	142,524		
Total	664.18	672.00	493.55	1,180,640	1,087,606		

**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
Hotel	14.70	6.60	6.60	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Quality Restaurant	14.70	6.60	6.60	12.00	69.00	19.00	38	18	44

**4.4 Fleet Mix**

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.482880	0.047259	0.194207	0.134290	0.040793	0.006520	0.016829	0.066591	0.001581	0.001384	0.005439	0.001112	0.001115
Other Asphalt Surfaces	0.482880	0.047259	0.194207	0.134290	0.040793	0.006520	0.016829	0.066591	0.001581	0.001384	0.005439	0.001112	0.001115
Parking Lot	0.482880	0.047259	0.194207	0.134290	0.040793	0.006520	0.016829	0.066591	0.001581	0.001384	0.005439	0.001112	0.001115
Quality Restaurant	0.482880	0.047259	0.194207	0.134290	0.040793	0.006520	0.016829	0.066591	0.001581	0.001384	0.005439	0.001112	0.001115

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	118.9286	118.9286	5.3800e-003	1.1100e-003	119.3946
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	118.9286	118.9286	5.3800e-003	1.1100e-003	119.3946
NaturalGas Mitigated	6.3600e-003	0.0578	0.0485	3.5000e-004			4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	62.9072	62.9072	1.2100e-003	1.1500e-003	63.2810
NaturalGas Unmitigated	6.3600e-003	0.0578	0.0485	3.5000e-004			4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	62.9072	62.9072	1.2100e-003	1.1500e-003	63.2810

## The Avalon Hotel Project - Mendocino-Coastal County, Annual

**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					
Hotel	1.0068e+006	5.4300e-003	0.0494	0.0415	3.0000e-004		3.7500e-003	3.7500e-003		3.7500e-003	3.7500e-003	0.0000	53.7299	53.7299	1.0300e-003	9.9000e-004	54.0492
Other Asphalt Surfaces	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
Quality Restaurant	171976	9.3000e-004	8.4300e-003	7.0800e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	9.1773	9.1773	1.8000e-004	1.7000e-004	9.2318
<b>Total</b>		<b>6.3600e-003</b>	<b>0.0578</b>	<b>0.0485</b>	<b>3.5000e-004</b>		<b>4.3900e-003</b>	<b>4.3900e-003</b>		<b>4.3900e-003</b>	<b>4.3900e-003</b>	<b>0.0000</b>	<b>62.9072</b>	<b>62.9072</b>	<b>1.2100e-003</b>	<b>1.1600e-003</b>	<b>63.2810</b>

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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					
Hotel	1.0068e+006	5.4300e-003	0.0494	0.0415	3.0000e-004		3.7500e-003	3.7500e-003		3.7500e-003	3.7500e-003	0.0000	53.7299	53.7299	1.0300e-003	9.9000e-004	54.0492
Other Asphalt Surfaces	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
Quality Restaurant	171976	9.3000e-004	8.4300e-003	7.0800e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	9.1773	9.1773	1.8000e-004	1.7000e-004	9.2318
<b>Total</b>		<b>6.3600e-003</b>	<b>0.0578</b>	<b>0.0485</b>	<b>3.5000e-004</b>		<b>4.3900e-003</b>	<b>4.3900e-003</b>		<b>4.3900e-003</b>	<b>4.3900e-003</b>	<b>0.0000</b>	<b>62.9072</b>	<b>62.9072</b>	<b>1.2100e-003</b>	<b>1.1600e-003</b>	<b>63.2810</b>

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

Land Use	Electricity Use kWh/yr	Total CO2 MT/yr	CH4	N2O	CO2e
Hotel	361810	105.2547	4.7600e-003	9.8000e-004	105.6671
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	10640	3.0953	1.4000e-004	3.0000e-005	3.1074
Quality Restaurant	36363.6	10.5786	4.8000e-004	1.0000e-004	10.6200
<b>Total</b>		<b>118.9286</b>	<b>5.3800e-003</b>	<b>1.1100e-003</b>	<b>119.3946</b>

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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			
Hotel	361810	105.2547	4.7600e-003	9.8000e-004	105.6671
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	10640	3.0953	1.4000e-004	3.0000e-005	3.1074
Quality Restaurant	36363.6	10.5786	4.8000e-004	1.0000e-004	10.6200
<b>Total</b>		<b>118.9286</b>	<b>5.3800e-003</b>	<b>1.1100e-003</b>	<b>119.3946</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

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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	0.2565	1.0000e-005	1.3300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5900e-003	2.5900e-003	1.0000e-005	0.0000	2.7600e-003
Unmitigated	0.2565	1.0000e-005	1.3300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5900e-003	2.5900e-003	1.0000e-005	0.0000	2.7600e-003

**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0591					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1973					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.3300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5900e-003	2.5900e-003	1.0000e-005	0.0000	2.7600e-003
<b>Total</b>	<b>0.2565</b>	<b>1.0000e-005</b>	<b>1.3300e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.5900e-003</b>	<b>2.5900e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.7600e-003</b>

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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	0.0591					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1973					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.3300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5900e-003	2.5900e-003	1.0000e-005	0.0000	2.7600e-003	
Total	0.2565	1.0000e-005	1.3300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5900e-003	2.5900e-003	1.0000e-005	0.0000	2.7600e-003	

**7.0 Water Detail****7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.5057	0.0570	1.3700e-003	5.3404
Unmitigated	4.1840	0.0685	1.6500e-003	6.3880

**7.2 Water by Land Use****Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	1.64884 / 0.183204	3.3051	0.0539	1.2900e-003	5.0373
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.44923 / 0.0286742	0.8789	0.0147	3.5000e-004	1.3507
<b>Total</b>		<b>4.1840</b>	<b>0.0685</b>	<b>1.6400e-003</b>	<b>6.3880</b>

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**7.2 Water by Land Use****Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	1.37249 / 0.172029	2.7711	0.0448	1.0800e- 003	4.2130
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.373939 / 0.0269251	0.7347	0.0122	2.9000e- 004	1.1275
<b>Total</b>		<b>3.5057</b>	<b>0.0570</b>	<b>1.3700e- 003</b>	<b>5.3404</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.9988	0.3545	0.0000	14.8618
Unmitigated	7.4985	0.4432	0.0000	18.5772

**8.2 Waste by Land Use**Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	35.59	7.2245	0.4270	0.0000	17.8983
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.35	0.2740	0.0162	0.0000	0.6789
<b>Total</b>		<b>7.4985</b>	<b>0.4432</b>	<b>0.0000</b>	<b>18.5772</b>

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**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	28.472	5.7796	0.3416	0.0000	14.3186
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.08	0.2192	0.0130	0.0000	0.5431
<b>Total</b>		<b>5.9988</b>	<b>0.3545</b>	<b>0.0000</b>	<b>14.8617</b>

**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**

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	25.5200	0.0000	0.0000	25.5200

**11.2 Net New Trees****Species Class**

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Pine	40	25.5200	0.0000	0.0000	25.5200
<b>Total</b>		<b>25.5200</b>	<b>0.0000</b>	<b>0.0000</b>	<b>25.5200</b>



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