

**Proposed Garretson  
Subdivision Air Quality Study**

Air Quality Study for proposed 23  
single family residence  
subdivision located in Corona,  
California



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May 7, 2014

## Sign-off Sheet

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## Abbreviations

AQMP	Air Quality Management Plan
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CO	Carbon monoxide
g/l	Grams per liter
H <sub>2</sub> S	Hydrogen sulfide
lbs/day	Pounds per day
LST	Localized Significance Thresholds
NAAQS	National Ambient Air Quality Standards
NO <sub>2</sub>	Nitrogen dioxide
NO <sub>x</sub>	Nitrogen oxide
O <sub>3</sub>	Ozone
Pb	Lead
PM <sub>10</sub>	Particulate matter with a diameter of 10 microns or less
PM <sub>2.5</sub>	Particulate matter with a diameter of 2.5 microns or less
ppm	Parts per million
ROG	Reactive organic gases (also known as VOCs)
SoCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SO <sub>2</sub>	Sulfur dioxide
SO <sub>x</sub>	Sulfur oxides
µg/m <sup>3</sup>	Micrograms per cubic meter
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compound

# PROPOSED GARRETSON SUBDIVISION AIR QUALITY STUDY

Introduction  
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## 1.0 INTRODUCTION

TRG Land Inc. has requested City of Corona approval to subdivide two parcels totaling 13.97 acres and construct 23 single family residences referred to as the proposed Garretson Subdivision (the Project). The Project is located along Garretson Avenue in the City of Corona, south of Santana Regional Park and the Islamic Society of Corona. The proposed Project would occur on assessor parcel numbers 120020005 and 120020022.

### 1.1 PURPOSE

The purpose of this Air Quality Study is to evaluate potential air quality impacts of Project implementation (construction and operation phases) and identify mitigation measures, where necessary, to reduce potentially significant air quality impacts to less than significant levels. The City of Corona has specifically requested preparation of an Air Quality Study to support the proposed Project entitlement and environmental review process.

### 1.2 DOCUMENT STRUCTURE

The document structure for this Air Quality Study is presented as follows:

Section 1.0 – Introduction;

Section 2.0 – Regulatory Setting;

Section 3.0 – Impact Analysis and Mitigation Measures;

Section 4.0 – Conclusion;

Section 5.0 – References; and

Appendix A – California Emissions Estimator Model Output Files.

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### 2.0 REGULATORY SETTING

The City of Corona is located within the South Coast Air Basin (SoCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The local air quality management agency is required to monitor air pollutant levels to ensure that air quality standards are met and, if they are not met, to develop strategies to meet the standards.

#### 2.1 AIR QUALITY STANDARDS

Ambient air quality is determined by comparing pollutant levels in ambient air samples to national and state standards. These standards are established by the United States Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) at levels determined to be protective of public health and welfare, with an adequate margin of safety. California Ambient Air Quality Standards (CAAQS) were established in 1967, whereas National Ambient Air Quality Standards (NAAQS) were first established by the federal Clean Air Act of 1970. California standards are generally more stringent than national standards.

Air quality standards specify the upper limits of pollutant concentrations, over defined durations, in ambient air, consistent with the management goal of preventing specific harmful effects. There are national and state standards for the “criteria pollutants” ozone (O<sub>3</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), fine particulate matter with an aerodynamic diameter of less than 2.5 microns (PM<sub>2.5</sub>), airborne respirable particulate matter with an aerodynamic diameter of less than 10 microns (PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), lead (Pb), visibility reducing particles, sulfates, hydrogen sulfide (H<sub>2</sub>S), and vinyl chloride. NAAQS and CAAQS are presented in Table 1.

**Table 1 National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards*	National Standards*
Ozone (O <sub>3</sub> )	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	--
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )	0.075 ppm (147 µg/m <sup>3</sup> )
Respirable Particulate Matter (PM <sub>10</sub> )	24 Hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>
	Annual Mean	20 µg/m <sup>3</sup>	--
Fine Particulate Matter (PM <sub>2.5</sub> )	24 Hour	--	35 µg/m <sup>3</sup>
	Annual Mean	12 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>
Carbon Monoxide (CO)	1 Hour	20 ppm (23 µg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )	9.0 ppm (10 mg/m <sup>3</sup> )
Nitrogen Dioxide (NO <sub>2</sub> )	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	100 ppb (188 µg/m <sup>3</sup> )
	Annual Mean	0.030 ppm (57 µg/m <sup>3</sup> )	0.053 ppm (100 µg/m <sup>3</sup> )
Sulfur Dioxide (SO <sub>2</sub> )	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	75 ppb (196 µg/m <sup>3</sup> )
	3 Hour	--	--
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )	0.14 ppm
	Annual Mean	--	0.030 ppm

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Pollutant	Averaging Time	California Standards*	National Standards*
Lead (Pb)	30 Day Average	1.5 µg/m <sup>3</sup>	--
	Calendar Quarter	--	1.5 µg/m <sup>3</sup>
	Rolling 3-Month Average	--	0.15 µg/m <sup>3</sup>
Visibility reducing particles	8 Hour	10 mile visibility standard, extinction of 0.23 per kilometer	--
Sulfates	24 Hour	25 µg/m <sup>3</sup>	--
Hydrogen sulfide (H <sub>2</sub> S)	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	--
Vinly chloride	24 Hour	0.01 ppm (265 µg/m <sup>3</sup> )	--
Notes: * ppm = parts per million; µg/m <sup>3</sup> = micrograms per cubic meter; "--" = no standard. CARB Ambient Air Quality Standards Chart, CARB 2013a.			

## 2.2 ATTAINMENT STATUS

Depending on whether or not the applicable air standards are met or exceeded, the air basin is classified as being in "attainment" or "nonattainment." The USEPA and CARB determine the air quality attainment status of designated areas by comparing local ambient air quality measurements from state or local ambient air monitoring stations with the CAAQS and NAAQS. These attainment designations are determined on a pollutant-by-pollutant basis. Consistent with federal requirements, an unclassifiable designation is treated as an attainment designation. Table 2 presents the federal and state attainment status for the Project site.

**Table 2 Attainment Status of Project Site**

Pollutant	Federal Designation	State Designation
Ozone (O <sub>3</sub> )	Non-Attainment	Non-Attainment (Extreme)
Particulate Matter (PM <sub>10</sub> )	Attainment	Non-Attainment
Particulate Matter (PM <sub>2.5</sub> )	Non-Attainment	Non-Attainment
Carbon Monoxide (CO)	Unclassified/Attainment	Unclassifiable/ Attainment
Nitrogen Dioxide (NO <sub>2</sub> )	Unclassified/Attainment	Unclassifiable/ Attainment
Sulfur Dioxide (SO <sub>2</sub> )	Attainment	Attainment
Lead (Pb)	Unclassified/Attainment	Attainment
Hydrogen Sulfide (H <sub>2</sub> S)	*	Unclassified
Sulfates	*	Attainment
Visibility Reducing Particles	*	Unclassified
Notes: (* ) = Not Identified/ No Status. CARB 2013b		

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As shown in Table 2, the Project site is located in an area designated nonattainment for both the federal and state standards for ozone ( $O_3$ ) and particulate matter less than 2.5 microns in aerodynamic diameter ( $PM_{2.5}$ ) and the state standard for particulate matter less than 10 microns in aerodynamic diameter ( $PM_{10}$ ). Because the SoCAB currently exceeds several state and federal ambient air quality standards, the SCAQMD is required to implement strategies to reduce pollutant levels to recognized acceptable standards.

### 2.3 APPLICABLE AIR QUALITY PLAN

The SCAQMD in conjunction with the Southern California Association of Governments (SCAG), CARB, and USEPA recently prepared the 2012 Air Quality Management Plan (AQMP). The purpose of the 2012 SoCAB AQMP is to provide a comprehensive and integrated program to lead the SoCAB into compliance with the 24-hour  $PM_{2.5}$  NAAQS. In addition, the AQMP outlines the SoCAB's plan toward meeting the USEPA's 1-hour and 8-hour ozone NAAQS (SCAQMD, 2013).

The 2012 SoCAB AQMP accounts for projected population growth, predicted future emissions in energy and transportation demand, and determines control strategies for the eventual achievement of attainment designation. These control strategies are either organized into the SCAQMD rules and regulations, or otherwise set forth as formal SCAQMD recommendations to other agencies.

### 2.4 RULES AND REGULATIONS

The proposed Project does not include stationary emissions sources. Therefore, it would not be subject to most SCAQMD rules and regulations. The Project would, however, likely be subject to compliance with the following SCAQMD Rules:

- Rule 401 – Visible Emissions;
- Rule 402 – Nuisance;
- Rule 403 – Fugitive Dust;
- Rule 1111 – Reduction of  $NO_x$  Emissions from Natural-Gas-Fired, Fan Type Central Furnaces;
- Rule 1113 – Architectural Coatings; and
- Rule 1121 – Control of Nitrogen Oxides from Residential – Type, Natural-Gas-Fired Water Heaters.



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### 2.5 SIGNIFICANCE CRITERIA

The criteria used for this Air Quality Study to evaluate the proposed Project's potential to cause or contribute to a significant air quality impact are based on the adopted SCAQMD California Environmental Quality Act (CEQA) significance criteria and City of Corona CEQA Initial Study Checklist.

#### 2.5.1 SCAQMD Thresholds

The SCAQMD has adopted regional and localized significance thresholds (LSTs) to determine the significance of a project's potential air quality impacts. Separate thresholds of significance have been adopted for the construction and operation phases of projects. The LSTs were developed by the SCAQMD to assist lead agencies in analyzing localized air quality impacts from projects. LSTs look-up tables for one, two, and five acre proposed projects emitting CO, NO<sub>x</sub>, PM<sub>2.5</sub> or PM<sub>10</sub> were prepared for easy reference according to source receptor area. The LSTs methodology and associated mass rates are not applicable to mobile sources travelling over the roadways. It should be noted that SCAQMD does not mandate LSTs for new construction projects; more importantly, LSTs are a voluntary approach and to be implemented at the discretion of local agencies (SCAQMD Final Localized Significant Thresholds, 2008).

Table 3, below, presents the regional and LSTs applicable to the proposed Project and used for purposes of this study. These LSTs are based on a five-acre site with a 25 meter receptor distance. Use of the five-acre site criteria represents a conservative approach as dispersion of proposed Project emissions over a 13.97 acres proposed Project site would be greater. In addition, the sensitive receptor distance of 25 meters in the SCAQMD LST lookup tables represents the closest and most conservative assumption for considering localized air quality impacts.

**Table 3 SCAQMD Air Quality Significance Thresholds**

<b>Regional Thresholds (lbs/day)</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>	<b>Lead (Pb)</b>
Construction	75	100	150	550	150	55	3
Operation	55	55	150	550	150	55	3
<b>Localized Thresholds (lbs/day)</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>	<b>Lead (Pb)</b>
Construction	--	270	--	1,700	12	8	--
Operation	--	270	--	1,700	3	2	--
<b>Notes:</b>							
Sources: SCAQMD Air Quality Significance Thresholds, 2009 and 2011.							
-- No applicable threshold has been established by the SCAQMD.							

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### 2.5.2 City of Corona CEQA Thresholds

The following criteria are included in the City of Corona's Initial Study template to evaluate the significance of potential air quality impacts for projects subject to compliance with the CEQA. A project would have a significant air quality impact if the project:

- a. Conflicts with or obstructs implementation of the applicable air quality plan;
- b. Violates any air quality standard or contribute substantially to an existing or projected air quality violation;
- c. Results in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- d. Exposes sensitive receptors to substantial pollutant concentrations; or
- e. Creates objectionable odors affecting a substantial number of people.

The City of Corona's significance criteria are consistent with those included in Appendix G of the CEQA Guidelines.

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**3.0 IMPACT ANALYSIS AND MITIGATION MEASURES**

Potential Air Quality Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**a. Would the project conflict with or obstruct implementation of the applicable air quality plan?**

Proposed Project construction and operation emissions were calculated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planning, and environmental professionals to quantify potential criteria air pollutant emissions associated with both construction and operations from a variety of land use projects.

The model quantifies direct emissions from construction and operations including vehicle use, offroad equipment, fugitive dust, off-gas from asphalt and architectural coating applications, hearths, and landscaping maintenance. Default data (i.e.: emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is an accurate and comprehensive tool for quantifying air quality impacts from land use projects throughout California.

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Emissions of criteria air pollutants were estimated using the single family housing land use type within CalEEMod. Specifically, the parcels of land that would be developed total 13.97 acres and would include 23 single family residences.

Emissions below the SCAQMD mass emissions thresholds of significance presented in Section 2.5.1 would not be expected to conflict with or obstruct implementation of the applicable air quality plan.

### Construction Phase Impact Analysis

The Project would result in emissions of criteria air pollutants from the operation of off-road equipment, on-road vehicles, and fugitive dust from grading activities, off-gas from paving activities, and off-gas from the application of architectural coatings during the construction phase. Table 4, below, summarizes proposed Project construction emissions estimated through CalEEMod in peak daily emissions (lbs/day). The CalEEMod output files are included in Appendix A.

**Table 4 Unmitigated Construction Emissions Summary**

	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Peak Project Emissions (lb/day)	238.36	79.15	52.10	0.06	21.36	12.83
Regional Significance Thresholds (lb/day)	75	100	550	150	150	55
Regional Thresholds Exceeded?	<b>yes</b>	no	no	no	no	no
Localized Significance Thresholds (lb/day)	--	270	--	1,700	12	8
Localized Thresholds Exceeded?	--	no	--	no	<b>yes</b>	<b>yes</b>
<b>Notes:</b> -- No applicable threshold has been established by the SCAQMD.						

As shown in Table 4, proposed Project construction emissions of NO<sub>x</sub>, CO, and SO<sub>2</sub> would be below the SCAQMD thresholds of significance and would not be expected to conflict with or obstruct implementation of the applicable air quality plan. Construction VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions would exceed the applicable SCAQMD thresholds and could therefore conflict with or obstruct implementation of the applicable air quality plan. This is a potentially significant air quality impact. Mitigation Measures Air Quality 1 and Air Quality 2 listed below could be implemented during Project construction to reduce VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions.

### Construction Phase Mitigation Measures

Mitigation Measure Air Quality 1. The Project applicant will utilize "super-compliant coatings" defined by the SCAQMD as architectural coatings that have a VOC content less than 10 grams per liter (g/l) to reduce VOC emissions to levels substantially lower than those required by SCAQMD Rule 1113.

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Mitigation Measure Air Quality 2. The Project applicant will water active construction areas with exposed soils a minimum of three times daily to reduce fugitive dust emissions.

### Construction Phase Residual Impacts

Table 5, below, summarizes proposed Project construction emissions of VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> after incorporation of Mitigation Measures Air Quality 1 and Air Quality 2. The CalEEMod output files including mitigation assumptions and calculations are included in Appendix A.

**Table 5 Mitigated Construction Emissions Summary**

	VOC	PM <sub>10</sub>	PM <sub>2.5</sub>
Peak Emissions (lb/day)	38.45	10.34	6.77
Regional Significance Thresholds (lb/day)	75	150	55
Regional Thresholds Exceeded?	no	no	no
Localized Significance Thresholds (lb/day)	--	12	8
Localized Thresholds Exceeded?	--	no	no
<b>Notes:</b> -- No applicable threshold has been established by the SCAQMD. Mitigated VOC emissions based on use of super compliant architectural coatings (VOC concentration <10 g/l). Mitigated PM <sub>10</sub> and PM <sub>2.5</sub> emissions based on 61% reduction from watering exposed areas three times daily.			

As shown in Table 5, mitigated construction emissions of VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> would be below the applicable regional and localized significance thresholds and the proposed Project's potential residual impact to conflict with or obstruct implementation of the applicable air quality plan would be less than significant with mitigation.

### Operation Phase Impact Analysis

Operational emissions of criteria air pollutants would be generated by mobile, area, and energy use sources as a result of normal day-to-day activities on the proposed Project site after construction. Table 6 summarizes the operational emissions of criteria air pollutants from the Project. The CalEEMod output files are included in Appendix A.

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**Table 6 Unmitigated Operations Emissions Summary**

	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Peak Emissions (lb/day)	20.53	3.83	25.69	0.04	3.52	2.28
Peak Emissions without Mobile Sources (lb/day)	19.47*	0.37*	13.59*	0.02*	1.78*	1.78*
Regional Significance Thresholds (lb/day)	55	55	550	150	150	55
Regional Thresholds Exceeded?	no	no	no	no	no	no
Localized Significance Thresholds (lb/day)	--	270	--	1,700	3	2
Localized Thresholds Exceeded?	--	no	--	no	no	no
<b>Notes:</b>						
* Emissions expressed without mobile sources as SCAQMD's Final LSTs Methodology does not apply to mobile sources travelling over public roadways.						
-- No applicable threshold has been established by the SCAQMD.						

As shown in Table 6, proposed Project operation emissions would be below the SCAQMD regional and localized significance thresholds and the proposed Project's potential to conflict with or obstruct implementation of the applicable air quality plan would be less than significant.

### Operation Phase Mitigation Measures

Operation phase impacts would be less than significant and therefore no mitigation measures are necessary.

### Operation Phase Residual Impacts

Residual impacts would be less than significant.

**b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?**

Emissions below the SCAQMD mass emissions thresholds of significance presented in Section 2.5.1 would not be expected to violate any air quality standard or contribute substantially to an existing or projected air quality violation.

### Construction Phase Impact Analysis

As shown in Table 4, proposed Project construction emissions of NO<sub>x</sub>, CO, and SO<sub>2</sub> would be below the SCAQMD thresholds of significance and would not be expected to violate any air quality standard or contribute substantially to an existing or projected air quality violation. Construction VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions would exceed the applicable SCAQMD thresholds and could therefore violate an air quality standard or contribute substantially to an existing or projected air quality violation. This is a potentially significant air quality impact. Mitigation

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Measures Air Quality 1 and Air Quality 2 could be implemented during Project construction to reduce VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions.

### Construction Phase Mitigation Measures

Mitigation Measures Air Quality 1 and 2 identified above.

### Construction Phase Residual Impacts

As shown in Table 5, proposed Project construction emissions of VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> after incorporation of Mitigation Measures Air Quality 1 and Air Quality 2 would be below the applicable SCAQMD thresholds of significance and residual impacts would therefore be less than significant with mitigation.

### Operation Phase Impact Analysis

Table 6 presents the operational emissions of criteria air pollutants from the Project. As shown in Table 6, proposed Project operation emissions would be below the SCAQMD regional and localized thresholds of significance and the proposed Project's potential to violate an air quality standard or contribute substantially to an existing or projected air quality violation would be less than significant.

### Operation Phase Mitigation Measures

Operation phase impacts would be less than significant and therefore no mitigation measures are necessary.

### Operation Phase Residual Impacts

Residual impacts would be less than significant.

- c. **Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors); result in any other cumulative air quality impact?**

By its very nature, air pollution is largely a cumulative impact. The SCAQMD's application of thresholds of significance for criteria air pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. If a project's emissions are less than the thresholds of significance for criteria air pollutants the project would not be expected to result in a cumulatively considerable air quality impact.

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### Construction Phase Impact Analysis

As shown in Table 4, proposed Project construction emissions of NO<sub>x</sub>, CO, and SO<sub>2</sub> would be below the SCAQMD thresholds of significance and would not be expected to result in a significant cumulative air quality impact. Construction VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions would exceed the applicable SCAQMD thresholds and could therefore result in a cumulative air quality impact. This is a potentially significant air quality impact. Mitigation Measures Air Quality 1 and Air Quality 2 could be implemented during proposed Project construction to reduce VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions.

### Construction Phase Mitigation Measures

Mitigation Measures Air Quality 1 and 2 identified above.

### Construction Phase Residual Impacts

As shown in Table 5, proposed Project construction emissions of VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> after incorporation of Mitigation Measures Air Quality 1 and Air Quality 2 would be below the applicable SCAQMD thresholds of significance and residual impacts would therefore be less than significant with mitigation.

### Operation Phase Impact Analysis

Table 6 summarizes the operational emissions of criteria air pollutants from the Project. As shown in Table 6, proposed Project operation emissions would be below the SCAQMD regional and localized thresholds of significance and the proposed Project's potential to result in a cumulative air quality impact would be less than significant.

### Operation Phase Mitigation Measures

Operation phase impacts would be less than significant and therefore no mitigation measures are necessary.

### Operation Phase Residual Impacts

Residual impacts would be less than significant.

#### **d. Would the project expose sensitive receptors to substantial pollutant concentrations?**

Projects that are below the SCAQMD LSTs presented in Section 2.5.1 would not be expected to expose sensitive receptors to substantial pollutant concentrations.



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### Construction Phase Impact Analysis

As shown in Table 4, proposed Project construction emissions of NO<sub>x</sub>, CO, and SO<sub>2</sub> would be below the SCAQMD LSTs and would not be expected to expose sensitive receptors to substantial pollutant concentrations. Construction VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions would exceed the applicable SCAQMD LSTs and could therefore expose sensitive receptors to substantial pollutant concentrations. This is a potentially significant air quality impact. Mitigation Measures Air Quality 1 and Air Quality 2 could be implemented during Project construction to reduce VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions.

### Construction Phase Mitigation Measures

Mitigation Measures Air Quality 1 and 2 identified above.

### Construction Phase Residual Impacts

As shown in Table 5, proposed Project construction emissions of VOC, PM<sub>10</sub>, and PM<sub>2.5</sub> after incorporation of Mitigation Measures Air Quality 1 and Air Quality 2 would be below the applicable SCAQMD thresholds of significance and residual impacts would therefore be less than significant with mitigation.

### Operation Phase Impact Analysis

Table 6 presents the operational emissions of criteria air pollutants from the proposed Project. As shown in Table 6, proposed Project operation emissions would be below the SCAQMD LSTs and the proposed Project's potential to expose sensitive receptors to substantial pollutant concentrations would be less than significant.

### Operation Phase Mitigation Measures

Operation phase impacts would be less than significant and therefore no mitigation measures are necessary.

### Operation Phase Residual Impacts

Residual impacts would be less than significant.

- e. **Would the project create objectionable odors affecting a substantial number of people?**

### Impact Analysis

Construction and operation of the proposed Project does not include any source of potentially objectionable odors that could affect a substantial number of people. Potential impacts would be less than significant.

## **PROPOSED GARRETSON SUBDIVISION AIR QUALITY STUDY**

Impact Analysis and Mitigation Measures  
May 7, 2014

### **Mitigation Measures**

Impacts would be less than significant and therefore no mitigation measures are necessary.

### **Residual Impacts**

Residual impacts would be less than significant.

## PROPOSED GARRETSON SUBDIVISION AIR QUALITY STUDY

Conclusion  
May 7, 2014

### 4.0 CONCLUSION

The proposed Project would result in emissions of criteria air pollutants during construction and operation. Construction emissions would be below the SCAQMD regional and localized thresholds of significance or can be mitigated to less than significant through incorporation of Mitigation Measures Air Quality 1 and Air Quality 2. Operation emissions would be below the SCAQMD regional and localized thresholds of significance and are therefore less than significant. Therefore, construction and operational emissions would not have the potential to conflict with or prevent attainment of the local air quality management plan, violate air quality standards, result in substantial increases in criteria air pollutants or expose sensitive receptors to any new substantial pollutant concentrations. In addition, the proposed Project does not include sources of objectionable odors that could affect a substantial number of people

This Air Quality Study concludes that the proposed Project would not create any significant air quality impacts after incorporation of Mitigation Measures Air Quality 1 and Air Quality 2.

## PROPOSED GARRETSON SUBDIVISION AIR QUALITY STUDY

References  
May 7, 2014

### 5.0 REFERENCES

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# PROPOSED GARRETSON SUBDIVISION AIR QUALITY STUDY

Appendix A CalEEMod Output Files  
May 7, 2014

## Appendix A CALEEMOD OUTPUT FILES

## **PROPOSED GARRETSON SUBDIVISION AIR QUALITY STUDY**

Appendix A CalEEMod Output Files  
May 7, 2014

**Annual, Summer, Winter – Mitigated emissions include reductions from Mitigation Measure AQ 2  
(water active construction areas with exposed soils a minimum of three times daily)**

**Garretson Subdivision**  
**Riverside-South Coast County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	23.00	Dwelling Unit	13.97	608,533.20	66

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2014
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	630.89	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics -  
 Land Use - Lot acreage/square feet of APNs 120020005 and 120020022 (entire project site)  
 Demolition -  
 Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	41,400.00	608,533.20
tblLandUse	LotAcreage	7.47	13.97

**2.0 Emissions Summary**

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**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					
2015	0.5480	5.0035	3.3209	4.4400e-003	0.2395	0.3103	0.5498	0.1084	0.2901	0.3985						
2016	2.5758	1.6702	1.1219	1.6700e-003	6.8400e-003	0.1122	0.1190	1.8300e-003	0.1053	0.1071						
<b>Total</b>	<b>3.1238</b>	<b>6.6737</b>	<b>4.4428</b>	<b>6.1100e-003</b>	<b>0.2464</b>	<b>0.4224</b>	<b>0.6688</b>	<b>0.1102</b>	<b>0.3953</b>	<b>0.5055</b>						

**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					
2015	0.5480	5.0035	3.3209	4.4400e-003	0.1033	0.3103	0.4136	0.0449	0.2901	0.3350						
2016	2.5758	1.6702	1.1219	1.6700e-003	6.8400e-003	0.1122	0.1190	1.8300e-003	0.1053	0.1071						
<b>Total</b>	<b>3.1238</b>	<b>6.6737</b>	<b>4.4428</b>	<b>6.1100e-003</b>	<b>0.1102</b>	<b>0.4224</b>	<b>0.5326</b>	<b>0.0467</b>	<b>0.3953</b>	<b>0.4421</b>						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>55.28</b>	<b>0.00</b>	<b>20.36</b>	<b>57.59</b>	<b>0.00</b>	<b>12.55</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**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	2.5202	4.7900e-003	0.3875	2.4000e-004		0.0233	0.0233		0.0233	0.0233						
Energy	4.1900e-003	0.0358	0.0152	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003						
Mobile	0.1717	0.6352	1.9898	4.0000e-003	0.2839	9.6100e-003	0.2935	0.0759	8.8300e-003	0.0847						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>2.6960</b>	<b>0.6757</b>	<b>2.3925</b>	<b>4.4700e-003</b>	<b>0.2839</b>	<b>0.0358</b>	<b>0.3197</b>	<b>0.0759</b>	<b>0.0350</b>	<b>0.1108</b>						

**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	2.5202	4.7900e-003	0.3875	2.4000e-004		0.0233	0.0233		0.0233	0.0233						
Energy	4.1900e-003	0.0358	0.0152	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003						
Mobile	0.1717	0.6352	1.9898	4.0000e-003	0.2839	9.6100e-003	0.2935	0.0759	8.8300e-003	0.0847						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>2.6960</b>	<b>0.6757</b>	<b>2.3925</b>	<b>4.4700e-003</b>	<b>0.2839</b>	<b>0.0358</b>	<b>0.3197</b>	<b>0.0759</b>	<b>0.0350</b>	<b>0.1108</b>						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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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
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### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/28/2015	5	20	
2	Site Preparation	Site Preparation	1/29/2015	2/11/2015	5	10	
3	Grading	Grading	2/12/2015	3/25/2015	5	30	
4	Building Construction	Building Construction	3/26/2015	5/18/2016	5	300	
5	Paving	Paving	5/19/2016	6/15/2016	5	20	
6	Architectural Coating	Architectural Coating	6/16/2016	7/13/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 1,232,280; Residential Outdoor: 410,760; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48



Category	tons/yr										MT/yr					
Fugitive Dust					2.8400e-003	0.0000	2.8400e-003	4.3000e-004	0.0000	4.3000e-004						
Off-Road	0.0451	0.4836	0.3607	4.0000e-004		0.0245	0.0245		0.0229	0.0229						
<b>Total</b>	<b>0.0451</b>	<b>0.4836</b>	<b>0.3607</b>	<b>4.0000e-004</b>	<b>2.8400e-003</b>	<b>0.0245</b>	<b>0.0274</b>	<b>4.3000e-004</b>	<b>0.0229</b>	<b>0.0233</b>						

**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	2.3000e-004	4.1400e-003	2.6200e-003	1.0000e-005	2.2000e-004	8.0000e-005	3.0000e-004	6.0000e-005	7.0000e-005	1.3000e-004						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	5.8000e-004	8.4000e-004	8.4800e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004						
<b>Total</b>	<b>8.1000e-004</b>	<b>4.9800e-003</b>	<b>0.0111</b>	<b>3.0000e-005</b>	<b>1.8700e-003</b>	<b>9.0000e-005</b>	<b>1.9600e-003</b>	<b>5.0000e-004</b>	<b>8.0000e-005</b>	<b>5.8000e-004</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					1.1100e-003	0.0000	1.1100e-003	1.7000e-004	0.0000	1.7000e-004						
Off-Road	0.0451	0.4836	0.3607	4.0000e-004		0.0245	0.0245		0.0229	0.0229						

<b>Total</b>	<b>0.0451</b>	<b>0.4836</b>	<b>0.3607</b>	<b>4.0000e-004</b>	<b>1.1100e-003</b>	<b>0.0245</b>	<b>0.0256</b>	<b>1.7000e-004</b>	<b>0.0229</b>	<b>0.0230</b>						
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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	2.3000e-004	4.1400e-003	2.6200e-003	1.0000e-005	2.2000e-004	8.0000e-005	3.0000e-004	6.0000e-005	7.0000e-005	1.3000e-004						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	5.8000e-004	8.4000e-004	8.4800e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004						
<b>Total</b>	<b>8.1000e-004</b>	<b>4.9800e-003</b>	<b>0.0111</b>	<b>3.0000e-005</b>	<b>1.8700e-003</b>	<b>9.0000e-005</b>	<b>1.9600e-003</b>	<b>5.0000e-004</b>	<b>8.0000e-005</b>	<b>5.8000e-004</b>						

**3.3 Site Preparation - 2015**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497						
Off-Road	0.0263	0.2845	0.2132	2.0000e-004		0.0154	0.0154		0.0142	0.0142						
<b>Total</b>	<b>0.0263</b>	<b>0.2845</b>	<b>0.2132</b>	<b>2.0000e-004</b>	<b>0.0903</b>	<b>0.0154</b>	<b>0.1058</b>	<b>0.0497</b>	<b>0.0142</b>	<b>0.0639</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	3.5000e-004	5.1000e-004	5.0900e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004						
<b>Total</b>	<b>3.5000e-004</b>	<b>5.1000e-004</b>	<b>5.0900e-003</b>	<b>1.0000e-005</b>	<b>9.9000e-004</b>	<b>1.0000e-005</b>	<b>1.0000e-003</b>	<b>2.6000e-004</b>	<b>1.0000e-005</b>	<b>2.7000e-004</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					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194						
Off-Road	0.0263	0.2845	0.2132	2.0000e-004		0.0154	0.0154		0.0142	0.0142						
<b>Total</b>	<b>0.0263</b>	<b>0.2845</b>	<b>0.2132</b>	<b>2.0000e-004</b>	<b>0.0352</b>	<b>0.0154</b>	<b>0.0507</b>	<b>0.0194</b>	<b>0.0142</b>	<b>0.0336</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	3.5000e-004	5.1000e-004	5.0900e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004						
<b>Total</b>	<b>3.5000e-004</b>	<b>5.1000e-004</b>	<b>5.0900e-003</b>	<b>1.0000e-005</b>	<b>9.9000e-004</b>	<b>1.0000e-005</b>	<b>1.0000e-003</b>	<b>2.6000e-004</b>	<b>1.0000e-005</b>	<b>2.7000e-004</b>						

### 3.4 Grading - 2015

#### 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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540						
Off-Road	0.1016	1.1857	0.7626	9.3000e-004		0.0570	0.0570		0.0525	0.0525						
<b>Total</b>	<b>0.1016</b>	<b>1.1857</b>	<b>0.7626</b>	<b>9.3000e-004</b>	<b>0.1301</b>	<b>0.0570</b>	<b>0.1871</b>	<b>0.0540</b>	<b>0.0525</b>	<b>0.1064</b>						

#### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.1500e-003	1.6800e-003	0.0170	4.0000e-005	3.3000e-003	2.0000e-005	3.3200e-003	8.8000e-004	2.0000e-005	9.0000e-004						
<b>Total</b>	<b>1.1500e-003</b>	<b>1.6800e-003</b>	<b>0.0170</b>	<b>4.0000e-005</b>	<b>3.3000e-003</b>	<b>2.0000e-005</b>	<b>3.3200e-003</b>	<b>8.8000e-004</b>	<b>2.0000e-005</b>	<b>9.0000e-004</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					0.0507	0.0000	0.0507	0.0210	0.0000	0.0210						
Off-Road	0.1016	1.1857	0.7626	9.3000e-004		0.0570	0.0570		0.0525	0.0525						
<b>Total</b>	<b>0.1016</b>	<b>1.1857</b>	<b>0.7626</b>	<b>9.3000e-004</b>	<b>0.0507</b>	<b>0.0570</b>	<b>0.1078</b>	<b>0.0210</b>	<b>0.0525</b>	<b>0.0735</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.1500e-003	1.6800e-003	0.0170	4.0000e-005	3.3000e-003	2.0000e-005	3.3200e-003	8.8000e-004	2.0000e-005	9.0000e-004						
<b>Total</b>	<b>1.1500e-003</b>	<b>1.6800e-003</b>	<b>0.0170</b>	<b>4.0000e-005</b>	<b>3.3000e-003</b>	<b>2.0000e-005</b>	<b>3.3200e-003</b>	<b>8.8000e-004</b>	<b>2.0000e-005</b>	<b>9.0000e-004</b>						

**3.5 Building Construction - 2015**

**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	0.3677	3.0180	1.8838	2.7000e-003		0.2127	0.2127		0.2000	0.2000						
<b>Total</b>	<b>0.3677</b>	<b>3.0180</b>	<b>1.8838</b>	<b>2.7000e-003</b>		<b>0.2127</b>	<b>0.2127</b>		<b>0.2000</b>	<b>0.2000</b>						

**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						
Vendor	1.8600e-003	0.0201	0.0220	4.0000e-005	1.2500e-003	3.9000e-004	1.6400e-003	3.6000e-004	3.6000e-004	7.1000e-004						
Worker	3.0800e-003	4.5100e-003	0.0455	1.0000e-004	8.8400e-003	6.0000e-005	8.9000e-003	2.3500e-003	5.0000e-005	2.4000e-003						
<b>Total</b>	<b>4.9400e-003</b>	<b>0.0246</b>	<b>0.0674</b>	<b>1.4000e-004</b>	<b>0.0101</b>	<b>4.5000e-004</b>	<b>0.0105</b>	<b>2.7100e-003</b>	<b>4.1000e-004</b>	<b>3.1100e-003</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	0.3677	3.0180	1.8838	2.7000e-003		0.2127	0.2127		0.2000	0.2000						

<b>Total</b>	<b>0.3677</b>	<b>3.0180</b>	<b>1.8838</b>	<b>2.7000e-003</b>		<b>0.2127</b>	<b>0.2127</b>		<b>0.2000</b>	<b>0.2000</b>						
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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						
Vendor	1.8600e-003	0.0201	0.0220	4.0000e-005	1.2500e-003	3.9000e-004	1.6400e-003	3.6000e-004	3.6000e-004	7.1000e-004						
Worker	3.0800e-003	4.5100e-003	0.0455	1.0000e-004	8.8400e-003	6.0000e-005	8.9000e-003	2.3500e-003	5.0000e-005	2.4000e-003						
<b>Total</b>	<b>4.9400e-003</b>	<b>0.0246</b>	<b>0.0674</b>	<b>1.4000e-004</b>	<b>0.0101</b>	<b>4.5000e-004</b>	<b>0.0105</b>	<b>2.7100e-003</b>	<b>4.1000e-004</b>	<b>3.1100e-003</b>						

**3.5 Building Construction - 2016**

**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	0.1686	1.4111	0.9161	1.3300e-003		0.0974	0.0974		0.0915	0.0915						
<b>Total</b>	<b>0.1686</b>	<b>1.4111</b>	<b>0.9161</b>	<b>1.3300e-003</b>		<b>0.0974</b>	<b>0.0974</b>		<b>0.0915</b>	<b>0.0915</b>						

**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						
Vendor	8.1000e-004	8.6800e-003	0.0102	2.0000e-005	6.1000e-004	1.6000e-004	7.8000e-004	1.8000e-004	1.5000e-004	3.2000e-004						
Worker	1.3600e-003	1.9900e-003	0.0201	5.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	3.0000e-005	1.1800e-003						
<b>Total</b>	<b>2.1700e-003</b>	<b>0.0107</b>	<b>0.0302</b>	<b>7.0000e-005</b>	<b>4.9600e-003</b>	<b>1.9000e-004</b>	<b>5.1600e-003</b>	<b>1.3400e-003</b>	<b>1.8000e-004</b>	<b>1.5000e-003</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	0.1686	1.4111	0.9161	1.3300e-003		0.0974	0.0974		0.0915	0.0915						
<b>Total</b>	<b>0.1686</b>	<b>1.4111</b>	<b>0.9161</b>	<b>1.3300e-003</b>		<b>0.0974</b>	<b>0.0974</b>		<b>0.0915</b>	<b>0.0915</b>						

**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						
Vendor	8.1000e-004	8.6800e-003	0.0102	2.0000e-005	6.1000e-004	1.6000e-004	7.8000e-004	1.8000e-004	1.5000e-004	3.2000e-004						
Worker	1.3600e-003	1.9900e-003	0.0201	5.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	3.0000e-005	1.1800e-003						
<b>Total</b>	<b>2.1700e-003</b>	<b>0.0107</b>	<b>0.0302</b>	<b>7.0000e-005</b>	<b>4.9600e-003</b>	<b>1.9000e-004</b>	<b>5.1600e-003</b>	<b>1.3400e-003</b>	<b>1.8000e-004</b>	<b>1.5000e-003</b>						

### 3.6 Paving - 2016

#### 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	0.0209	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>0.0209</b>	<b>0.2239</b>	<b>0.1482</b>	<b>2.2000e-004</b>		<b>0.0126</b>	<b>0.0126</b>		<b>0.0116</b>	<b>0.0116</b>						

#### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	5.2000e-004	7.5000e-004	7.6000e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004						
<b>Total</b>	<b>5.2000e-004</b>	<b>7.5000e-004</b>	<b>7.6000e-003</b>	<b>2.0000e-005</b>	<b>1.6500e-003</b>	<b>1.0000e-005</b>	<b>1.6600e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.5000e-004</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	0.0209	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>0.0209</b>	<b>0.2239</b>	<b>0.1482</b>	<b>2.2000e-004</b>		<b>0.0126</b>	<b>0.0126</b>		<b>0.0116</b>	<b>0.0116</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	5.2000e-004	7.5000e-004	7.6000e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004						
<b>Total</b>	<b>5.2000e-004</b>	<b>7.5000e-004</b>	<b>7.6000e-003</b>	<b>2.0000e-005</b>	<b>1.6500e-003</b>	<b>1.0000e-005</b>	<b>1.6600e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.5000e-004</b>						

**3.7 Architectural Coating - 2016**

**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	2.3798					0.0000	0.0000		0.0000	0.0000						
Off-Road	3.6800e-003	0.0237	0.0188	3.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003						
<b>Total</b>	<b>2.3835</b>	<b>0.0237</b>	<b>0.0188</b>	<b>3.0000e-005</b>		<b>1.9700e-003</b>	<b>1.9700e-003</b>		<b>1.9700e-003</b>	<b>1.9700e-003</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.0000e-005	1.0000e-004	1.0100e-003	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005						
<b>Total</b>	<b>7.0000e-005</b>	<b>1.0000e-004</b>	<b>1.0100e-003</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</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	2.3798					0.0000	0.0000		0.0000	0.0000						

Off-Road	3.6800e-003	0.0237	0.0188	3.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003						
<b>Total</b>	<b>2.3835</b>	<b>0.0237</b>	<b>0.0188</b>	<b>3.0000e-005</b>		<b>1.9700e-003</b>	<b>1.9700e-003</b>		<b>1.9700e-003</b>	<b>1.9700e-003</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.0000e-005	1.0000e-004	1.0100e-003	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005						
<b>Total</b>	<b>7.0000e-005</b>	<b>1.0000e-004</b>	<b>1.0100e-003</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>						

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1717	0.6352	1.9898	4.0000e-003	0.2839	9.6100e-003	0.2935	0.0759	8.8300e-003	0.0847						
Unmitigated	0.1717	0.6352	1.9898	4.0000e-003	0.2839	9.6100e-003	0.2935	0.0759	8.8300e-003	0.0847						

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	220.11	231.84	201.71	748,893	748,893
Total	220.11	231.84	201.71	748,893	748,893

## 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
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.466361	0.070248	0.175019	0.170752	0.044803	0.007511	0.012464	0.040207	0.001012	0.001075	0.006379	0.000925	0.003245

## 5.0 Energy Detail

### 4.4 Fleet Mix

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000						
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						
NaturalGas Mitigated	4.1900e-003	0.0358	0.0152	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003						
NaturalGas Unmitigated	4.1900e-003	0.0358	0.0152	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003						



## 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					
Single Family Housing	776639	4.1900e-003	0.0358	0.0152	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003						
<b>Total</b>		<b>4.1900e-003</b>	<b>0.0358</b>	<b>0.0152</b>	<b>2.3000e-004</b>		<b>2.8900e-003</b>	<b>2.8900e-003</b>		<b>2.8900e-003</b>	<b>2.8900e-003</b>						

### 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					
Single Family Housing	776639	4.1900e-003	0.0358	0.0152	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003						
<b>Total</b>		<b>4.1900e-003</b>	<b>0.0358</b>	<b>0.0152</b>	<b>2.3000e-004</b>		<b>2.8900e-003</b>	<b>2.8900e-003</b>		<b>2.8900e-003</b>	<b>2.8900e-003</b>						

## 5.3 Energy by Land Use - Electricity

### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	176632				
<b>Total</b>					

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	176632				
<b>Total</b>					

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.5202	4.7900e-003	0.3875	2.4000e-004		0.0233	0.0233		0.0233	0.0233						

Unmitigated	2.5202	4.7900e-003	0.3875	2.4000e-004		0.0233	0.0233		0.0233	0.0233						
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## 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	0.2380					0.0000	0.0000		0.0000	0.0000						
Consumer Products	2.1989					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0753	1.9100e-003	0.1445	2.3000e-004		0.0220	0.0220		0.0220	0.0220						
Landscaping	7.9200e-003	2.8800e-003	0.2430	1.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003						
<b>Total</b>	<b>2.5202</b>	<b>4.7900e-003</b>	<b>0.3875</b>	<b>2.4000e-004</b>		<b>0.0233</b>	<b>0.0233</b>		<b>0.0233</b>	<b>0.0233</b>						

### 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	0.2380					0.0000	0.0000		0.0000	0.0000						
Consumer Products	2.1989					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0753	1.9100e-003	0.1445	2.3000e-004		0.0220	0.0220		0.0220	0.0220						
Landscaping	7.9200e-003	2.8800e-003	0.2430	1.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003						

Total	2.5202	4.7900e-003	0.3875	2.4000e-004		0.0233	0.0233		0.0233	0.0233						
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## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				
Unmitigated				

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.49854 / 0.944733				
<b>Total</b>					

#### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.49854 / 0.944733				
<b>Total</b>					

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				
Unmitigated				

### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Land Use	tons	MT/yr		
Single Family Housing	27.06			
<b>Total</b>				

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	27.06				
<b>Total</b>					

**9.0 Operational Offroad**

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

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**Garretson Subdivision**  
**Riverside-South Coast County, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	23.00	Dwelling Unit	13.97	608,533.20	66

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2014
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	630.89	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics -

Land Use - Lot acreage/square feet of APNs 120020005 and 120020022 (entire project site)

Demolition -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	41,400.00	608,533.20
tblLandUse	LotAcreage	7.47	13.97

**2.0 Emissions Summary**

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**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					
2015	6.8603	79.1477	52.1022	0.0644	18.2675	3.8036	21.3571	9.9840	3.4993	12.8265						
2016	238.3602	28.7104	19.1361	0.0283	0.1677	1.9712	2.0732	0.0445	1.8520	1.8793						
<b>Total</b>	<b>245.2205</b>	<b>107.8580</b>	<b>71.2383</b>	<b>0.0927</b>	<b>18.4351</b>	<b>5.7749</b>	<b>23.4303</b>	<b>10.0285</b>	<b>5.3513</b>	<b>14.7057</b>						

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.8603	79.1477	52.1022	0.0644	7.2470	3.8036	10.3366	3.9263	3.4993	6.7688						
2016	238.3602	28.7104	19.1361	0.0283	0.1677	1.9712	2.0732	0.0445	1.8520	1.8793						
<b>Total</b>	<b>245.2205</b>	<b>107.8580</b>	<b>71.2383</b>	<b>0.0927</b>	<b>7.4147</b>	<b>5.7749</b>	<b>12.4098</b>	<b>3.9708</b>	<b>5.3513</b>	<b>8.6480</b>						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>59.78</b>	<b>0.00</b>	<b>47.03</b>	<b>60.40</b>	<b>0.00</b>	<b>41.19</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**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	19.4432	0.1760	13.5046	0.0185		1.7673	1.7673		1.7670	1.7670						
Energy	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
Mobile	1.0652	3.4624	12.1002	0.0247	1.6779	0.0558	1.7337	0.4478	0.0513	0.4990						
<b>Total</b>	<b>20.5314</b>	<b>3.8345</b>	<b>25.6882</b>	<b>0.0444</b>	<b>1.6779</b>	<b>1.8389</b>	<b>3.5168</b>	<b>0.4478</b>	<b>1.8341</b>	<b>2.2819</b>						

### 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	19.4432	0.1760	13.5046	0.0185		1.7673	1.7673		1.7670	1.7670						
Energy	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
Mobile	1.0652	3.4624	12.1002	0.0247	1.6779	0.0558	1.7337	0.4478	0.0513	0.4990						
<b>Total</b>	<b>20.5314</b>	<b>3.8345</b>	<b>25.6882</b>	<b>0.0444</b>	<b>1.6779</b>	<b>1.8389</b>	<b>3.5168</b>	<b>0.4478</b>	<b>1.8341</b>	<b>2.2819</b>						

	ROG	NOx	CO	SO2	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	Demolition	Demolition	1/1/2015	1/28/2015	5	20	
2	Site Preparation	Site Preparation	1/29/2015	2/11/2015	5	10	
3	Grading	Grading	2/12/2015	3/25/2015	5	30	
4	Building Construction	Building Construction	3/26/2015	5/18/2016	5	300	
5	Paving	Paving	5/19/2016	6/15/2016	5	20	
6	Architectural Coating	Architectural Coating	6/16/2016	7/13/2016	5	20	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 75**

**Acres of Paving: 0**

**Residential Indoor: 1,232,280; Residential Outdoor: 410,760; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	26.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

### 3.2 Demolition - 2015

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2845	0.0000	0.2845	0.0431	0.0000	0.0431						
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858						
<b>Total</b>	<b>4.5083</b>	<b>48.3629</b>	<b>36.0738</b>	<b>0.0399</b>	<b>0.2845</b>	<b>2.4508</b>	<b>2.7353</b>	<b>0.0431</b>	<b>2.2858</b>	<b>2.3289</b>						

**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	0.0221	0.3921	0.2342	9.3000e-004	0.0227	7.7200e-003	0.0304	6.2100e-003	7.1000e-003	0.0133						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0639	0.0758	0.9467	2.0100e-003	0.1677	1.0900e-003	0.1688	0.0445	1.0000e-003	0.0455						
<b>Total</b>	<b>0.0859</b>	<b>0.4679</b>	<b>1.1808</b>	<b>2.9400e-003</b>	<b>0.1903</b>	<b>8.8100e-003</b>	<b>0.1992</b>	<b>0.0507</b>	<b>8.1000e-003</b>	<b>0.0588</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	lb/day										lb/day					
Fugitive Dust					0.1109	0.0000	0.1109	0.0168	0.0000	0.0168						
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858						
<b>Total</b>	<b>4.5083</b>	<b>48.3629</b>	<b>36.0738</b>	<b>0.0399</b>	<b>0.1109</b>	<b>2.4508</b>	<b>2.5618</b>	<b>0.0168</b>	<b>2.2858</b>	<b>2.3026</b>						

**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	0.0221	0.3921	0.2342	9.3000e-004	0.0227	7.7200e-003	0.0304	6.2100e-003	7.1000e-003	0.0133						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0639	0.0758	0.9467	2.0100e-003	0.1677	1.0900e-003	0.1688	0.0445	1.0000e-003	0.0455						
<b>Total</b>	<b>0.0859</b>	<b>0.4679</b>	<b>1.1808</b>	<b>2.9400e-003</b>	<b>0.1903</b>	<b>8.8100e-003</b>	<b>0.1992</b>	<b>0.0507</b>	<b>8.1000e-003</b>	<b>0.0588</b>						

### 3.3 Site Preparation - 2015

#### 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						
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412						
<b>Total</b>	<b>5.2609</b>	<b>56.8897</b>	<b>42.6318</b>	<b>0.0391</b>	<b>18.0663</b>	<b>3.0883</b>	<b>21.1545</b>	<b>9.9307</b>	<b>2.8412</b>	<b>12.7719</b>						

#### 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						

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0767	0.0909	1.1360	2.4100e-003	0.2012	1.3100e-003	0.2025	0.0534	1.2000e-003	0.0546						
<b>Total</b>	<b>0.0767</b>	<b>0.0909</b>	<b>1.1360</b>	<b>2.4100e-003</b>	<b>0.2012</b>	<b>1.3100e-003</b>	<b>0.2025</b>	<b>0.0534</b>	<b>1.2000e-003</b>	<b>0.0546</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	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730						
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412						
<b>Total</b>	<b>5.2609</b>	<b>56.8897</b>	<b>42.6318</b>	<b>0.0391</b>	<b>7.0458</b>	<b>3.0883</b>	<b>10.1341</b>	<b>3.8730</b>	<b>2.8412</b>	<b>6.7142</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0767	0.0909	1.1360	2.4100e-003	0.2012	1.3100e-003	0.2025	0.0534	1.2000e-003	0.0546						
<b>Total</b>	<b>0.0767</b>	<b>0.0909</b>	<b>1.1360</b>	<b>2.4100e-003</b>	<b>0.2012</b>	<b>1.3100e-003</b>	<b>0.2025</b>	<b>0.0534</b>	<b>1.2000e-003</b>	<b>0.0546</b>						

### 3.4 Grading - 2015

#### 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						
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980						
<b>Total</b>	<b>6.7751</b>	<b>79.0467</b>	<b>50.8400</b>	<b>0.0618</b>	<b>8.6733</b>	<b>3.8022</b>	<b>12.4755</b>	<b>3.5965</b>	<b>3.4980</b>	<b>7.0945</b>						

#### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0852	0.1010	1.2622	2.6800e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606						
<b>Total</b>	<b>0.0852</b>	<b>0.1010</b>	<b>1.2622</b>	<b>2.6800e-003</b>	<b>0.2236</b>	<b>1.4600e-003</b>	<b>0.2250</b>	<b>0.0593</b>	<b>1.3400e-003</b>	<b>0.0606</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
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Category	lb/day										lb/day					
Fugitive Dust					3.3826	0.0000	3.3826	1.4026	0.0000	1.4026						
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980						
<b>Total</b>	<b>6.7751</b>	<b>79.0467</b>	<b>50.8400</b>	<b>0.0618</b>	<b>3.3826</b>	<b>3.8022</b>	<b>7.1848</b>	<b>1.4026</b>	<b>3.4980</b>	<b>4.9006</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0852	0.1010	1.2622	2.6800e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606						
<b>Total</b>	<b>0.0852</b>	<b>0.1010</b>	<b>1.2622</b>	<b>2.6800e-003</b>	<b>0.2236</b>	<b>1.4600e-003</b>	<b>0.2250</b>	<b>0.0593</b>	<b>1.3400e-003</b>	<b>0.0606</b>						

**3.5 Building Construction - 2015**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904						
<b>Total</b>	<b>3.6591</b>	<b>30.0299</b>	<b>18.7446</b>	<b>0.0268</b>		<b>2.1167</b>	<b>2.1167</b>		<b>1.9904</b>	<b>1.9904</b>						



**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						
Vendor	0.0176	0.1909	0.1888	4.2000e-004	0.0126	3.8600e-003	0.0164	3.5900e-003	3.5500e-003	7.1400e-003						
Worker	0.0341	0.0404	0.5049	1.0700e-003	0.0894	5.8000e-004	0.0900	0.0237	5.3000e-004	0.0243						
<b>Total</b>	<b>0.0516</b>	<b>0.2313</b>	<b>0.6937</b>	<b>1.4900e-003</b>	<b>0.1020</b>	<b>4.4400e-003</b>	<b>0.1064</b>	<b>0.0273</b>	<b>4.0800e-003</b>	<b>0.0314</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	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904						
<b>Total</b>	<b>3.6591</b>	<b>30.0299</b>	<b>18.7446</b>	<b>0.0268</b>		<b>2.1167</b>	<b>2.1167</b>		<b>1.9904</b>	<b>1.9904</b>						

**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						
Vendor	0.0176	0.1909	0.1888	4.2000e-004	0.0126	3.8600e-003	0.0164	3.5900e-003	3.5500e-003	7.1400e-003						
Worker	0.0341	0.0404	0.5049	1.0700e-003	0.0894	5.8000e-004	0.0900	0.0237	5.3000e-004	0.0243						
<b>Total</b>	<b>0.0516</b>	<b>0.2313</b>	<b>0.6937</b>	<b>1.4900e-003</b>	<b>0.1020</b>	<b>4.4400e-003</b>	<b>0.1064</b>	<b>0.0273</b>	<b>4.0800e-003</b>	<b>0.0314</b>						

### 3.5 Building Construction - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485						
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>						

#### 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						
Vendor	0.0156	0.1678	0.1758	4.2000e-004	0.0126	3.2600e-003	0.0158	3.5900e-003	3.0000e-003	6.5900e-003						
Worker	0.0307	0.0362	0.4537	1.0700e-003	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242						
<b>Total</b>	<b>0.0462</b>	<b>0.2040</b>	<b>0.6294</b>	<b>1.4900e-003</b>	<b>0.1020</b>	<b>3.8200e-003</b>	<b>0.1058</b>	<b>0.0273</b>	<b>3.5100e-003</b>	<b>0.0308</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	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485						
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>						

**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						
Vendor	0.0156	0.1678	0.1758	4.2000e-004	0.0126	3.2600e-003	0.0158	3.5900e-003	3.0000e-003	6.5900e-003						
Worker	0.0307	0.0362	0.4537	1.0700e-003	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242						
<b>Total</b>	<b>0.0462</b>	<b>0.2040</b>	<b>0.6294</b>	<b>1.4900e-003</b>	<b>0.1020</b>	<b>3.8200e-003</b>	<b>0.1058</b>	<b>0.0273</b>	<b>3.5100e-003</b>	<b>0.0308</b>						

### 3.6 Paving - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>2.0898</b>	<b>22.3859</b>	<b>14.8176</b>	<b>0.0223</b>		<b>1.2610</b>	<b>1.2610</b>		<b>1.1601</b>	<b>1.1601</b>						

#### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0575	0.0679	0.8507	2.0100e-003	0.1677	1.0500e-003	0.1687	0.0445	9.6000e-004	0.0454						
<b>Total</b>	<b>0.0575</b>	<b>0.0679</b>	<b>0.8507</b>	<b>2.0100e-003</b>	<b>0.1677</b>	<b>1.0500e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.6000e-004</b>	<b>0.0454</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	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>2.0898</b>	<b>22.3859</b>	<b>14.8176</b>	<b>0.0223</b>		<b>1.2610</b>	<b>1.2610</b>		<b>1.1601</b>	<b>1.1601</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0575	0.0679	0.8507	2.0100e-003	0.1677	1.0500e-003	0.1687	0.0445	9.6000e-004	0.0454						
<b>Total</b>	<b>0.0575</b>	<b>0.0679</b>	<b>0.8507</b>	<b>2.0100e-003</b>	<b>0.1677</b>	<b>1.0500e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.6000e-004</b>	<b>0.0454</b>						

**3.7 Architectural Coating - 2016**

**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	237.9841					0.0000	0.0000		0.0000	0.0000						

Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966						
<b>Total</b>	<b>238.3525</b>	<b>2.3722</b>	<b>1.8839</b>	<b>2.9700e-003</b>		<b>0.1966</b>	<b>0.1966</b>		<b>0.1966</b>	<b>0.1966</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.6600e-003	9.0500e-003	0.1134	2.7000e-004	0.0224	1.4000e-004	0.0225	5.9300e-003	1.3000e-004	6.0600e-003						
<b>Total</b>	<b>7.6600e-003</b>	<b>9.0500e-003</b>	<b>0.1134</b>	<b>2.7000e-004</b>	<b>0.0224</b>	<b>1.4000e-004</b>	<b>0.0225</b>	<b>5.9300e-003</b>	<b>1.3000e-004</b>	<b>6.0600e-003</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	lb/day										lb/day					
Archit. Coating	237.9841					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966						
<b>Total</b>	<b>238.3525</b>	<b>2.3722</b>	<b>1.8839</b>	<b>2.9700e-003</b>		<b>0.1966</b>	<b>0.1966</b>		<b>0.1966</b>	<b>0.1966</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.6600e-003	9.0500e-003	0.1134	2.7000e-004	0.0224	1.4000e-004	0.0225	5.9300e-003	1.3000e-004	6.0600e-003						
<b>Total</b>	<b>7.6600e-003</b>	<b>9.0500e-003</b>	<b>0.1134</b>	<b>2.7000e-004</b>	<b>0.0224</b>	<b>1.4000e-004</b>	<b>0.0225</b>	<b>5.9300e-003</b>	<b>1.3000e-004</b>	<b>6.0600e-003</b>						

#### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0652	3.4624	12.1002	0.0247	1.6779	0.0558	1.7337	0.4478	0.0513	0.4990						
Unmitigated	1.0652	3.4624	12.1002	0.0247	1.6779	0.0558	1.7337	0.4478	0.0513	0.4990						

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	220.11	231.84	201.71	748,893	748,893
<b>Total</b>	<b>220.11</b>	<b>231.84</b>	<b>201.71</b>	<b>748,893</b>	<b>748,893</b>

### 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
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.466361	0.070248	0.175019	0.170752	0.044803	0.007511	0.012464	0.040207	0.001012	0.001075	0.006379	0.000925	0.003245

### 5.0 Energy Detail

#### 4.4 Fleet Mix

Historical Energy Use: N

#### 5.1 Mitigation Measures Energy

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
	lb/day										lb/day					
NaturalGas Mitigated	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
NaturalGas Unmitigated	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						

#### 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
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Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	2127.78	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
<b>Total</b>		<b>0.0230</b>	<b>0.1961</b>	<b>0.0834</b>	<b>1.2500e-003</b>		<b>0.0159</b>	<b>0.0159</b>		<b>0.0159</b>	<b>0.0159</b>						

**Mitigated**

	Natural Gas 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					
Single Family Housing	2.12778	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
<b>Total</b>		<b>0.0230</b>	<b>0.1961</b>	<b>0.0834</b>	<b>1.2500e-003</b>		<b>0.0159</b>	<b>0.0159</b>		<b>0.0159</b>	<b>0.0159</b>						

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	19.4432	0.1760	13.5046	0.0185		1.7673	1.7673		1.7670	1.7670						
Unmitigated	19.4432	0.1760	13.5046	0.0185		1.7673	1.7673		1.7670	1.7670						

## 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	1.3040					0.0000	0.0000		0.0000	0.0000						
Consumer Products	12.0490					0.0000	0.0000		0.0000	0.0000						
Hearth	6.0268	0.1529	11.5608	0.0184		1.7569	1.7569		1.7567	1.7567						
Landscaping	0.0634	0.0230	1.9439	1.0000e-004		0.0103	0.0103		0.0103	0.0103						
<b>Total</b>	<b>19.4432</b>	<b>0.1760</b>	<b>13.5046</b>	<b>0.0185</b>		<b>1.7673</b>	<b>1.7673</b>		<b>1.7670</b>	<b>1.7670</b>						

### 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					
Consumer Products	12.0490					0.0000	0.0000		0.0000	0.0000						
Hearth	6.0268	0.1529	11.5608	0.0184		1.7569	1.7569		1.7567	1.7567						
Landscaping	0.0634	0.0230	1.9439	1.0000e-004		0.0103	0.0103		0.0103	0.0103						
Architectural Coating	1.3040					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>19.4432</b>	<b>0.1760</b>	<b>13.5046</b>	<b>0.0185</b>		<b>1.7673</b>	<b>1.7673</b>		<b>1.7670</b>	<b>1.7670</b>						

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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**Garretson Subdivision**  
**Riverside-South Coast County, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	23.00	Dwelling Unit	13.97	608,533.20	66

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2014
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	630.89	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

Project Characteristics -  
 Land Use - Lot acreage/square feet of APNs 120020005 and 120020022 (entire project site)  
 Demolition -  
 Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	41,400.00	608,533.20
tblLandUse	LotAcreage	7.47	13.97

**2.0 Emissions Summary**

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**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					
2015	6.8566	79.1544	51.9304	0.0642	18.2675	3.8036	21.3571	9.9840	3.4993	12.8265						
2016	238.3599	28.7169	19.0974	0.0282	0.1677	1.9712	2.0732	0.0445	1.8520	1.8793						
<b>Total</b>	<b>245.2164</b>	<b>107.8713</b>	<b>71.0278</b>	<b>0.0924</b>	<b>18.4351</b>	<b>5.7749</b>	<b>23.4303</b>	<b>10.0285</b>	<b>5.3513</b>	<b>14.7058</b>						

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.8566	79.1544	51.9304	0.0642	7.2470	3.8036	10.3366	3.9263	3.4993	6.7688						
2016	238.3599	28.7169	19.0974	0.0282	0.1677	1.9712	2.0732	0.0445	1.8520	1.8793						
<b>Total</b>	<b>245.2164</b>	<b>107.8713</b>	<b>71.0278</b>	<b>0.0924</b>	<b>7.4147</b>	<b>5.7749</b>	<b>12.4099</b>	<b>3.9708</b>	<b>5.3513</b>	<b>8.6481</b>						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>59.78</b>	<b>0.00</b>	<b>47.03</b>	<b>60.40</b>	<b>0.00</b>	<b>41.19</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**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	19.4432	0.1760	13.5046	0.0185		1.7673	1.7673		1.7670	1.7670						
Energy	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
Mobile	1.0431	3.6133	11.1979	0.0230	1.6779	0.0562	1.7341	0.4478	0.0516	0.4993						
<b>Total</b>	<b>20.5092</b>	<b>3.9853</b>	<b>24.7860</b>	<b>0.0427</b>	<b>1.6779</b>	<b>1.8393</b>	<b>3.5172</b>	<b>0.4478</b>	<b>1.8344</b>	<b>2.2822</b>						

### 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	19.4432	0.1760	13.5046	0.0185		1.7673	1.7673		1.7670	1.7670						
Energy	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
Mobile	1.0431	3.6133	11.1979	0.0230	1.6779	0.0562	1.7341	0.4478	0.0516	0.4993						
<b>Total</b>	<b>20.5092</b>	<b>3.9853</b>	<b>24.7860</b>	<b>0.0427</b>	<b>1.6779</b>	<b>1.8393</b>	<b>3.5172</b>	<b>0.4478</b>	<b>1.8344</b>	<b>2.2822</b>						

	ROG	NOx	CO	SO2	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	Demolition	Demolition	1/1/2015	1/28/2015	5	20	
2	Site Preparation	Site Preparation	1/29/2015	2/11/2015	5	10	
3	Grading	Grading	2/12/2015	3/25/2015	5	30	
4	Building Construction	Building Construction	3/26/2015	5/18/2016	5	300	
5	Paving	Paving	5/19/2016	6/15/2016	5	20	
6	Architectural Coating	Architectural Coating	6/16/2016	7/13/2016	5	20	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 75**

**Acres of Paving: 0**

**Residential Indoor: 1,232,280; Residential Outdoor: 410,760; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	26.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

### 3.2 Demolition - 2015

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2845	0.0000	0.2845	0.0431	0.0000	0.0431						
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858						
<b>Total</b>	<b>4.5083</b>	<b>48.3629</b>	<b>36.0738</b>	<b>0.0399</b>	<b>0.2845</b>	<b>2.4508</b>	<b>2.7353</b>	<b>0.0431</b>	<b>2.2858</b>	<b>2.3289</b>						



**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	0.0229	0.4071	0.2556	9.2000e-004	0.0227	7.7500e-003	0.0304	6.2100e-003	7.1200e-003	0.0133						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0611	0.0808	0.8178	1.8400e-003	0.1677	1.0900e-003	0.1688	0.0445	1.0000e-003	0.0455						
<b>Total</b>	<b>0.0840</b>	<b>0.4879</b>	<b>1.0735</b>	<b>2.7600e-003</b>	<b>0.1903</b>	<b>8.8400e-003</b>	<b>0.1992</b>	<b>0.0507</b>	<b>8.1200e-003</b>	<b>0.0588</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	lb/day										lb/day					
Fugitive Dust					0.1109	0.0000	0.1109	0.0168	0.0000	0.0168						
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858						
<b>Total</b>	<b>4.5083</b>	<b>48.3629</b>	<b>36.0738</b>	<b>0.0399</b>	<b>0.1109</b>	<b>2.4508</b>	<b>2.5618</b>	<b>0.0168</b>	<b>2.2858</b>	<b>2.3026</b>						

**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	0.0229	0.4071	0.2556	9.2000e-004	0.0227	7.7500e-003	0.0304	6.2100e-003	7.1200e-003	0.0133						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0611	0.0808	0.8178	1.8400e-003	0.1677	1.0900e-003	0.1688	0.0445	1.0000e-003	0.0455						
<b>Total</b>	<b>0.0840</b>	<b>0.4879</b>	<b>1.0735</b>	<b>2.7600e-003</b>	<b>0.1903</b>	<b>8.8400e-003</b>	<b>0.1992</b>	<b>0.0507</b>	<b>8.1200e-003</b>	<b>0.0588</b>						

### 3.3 Site Preparation - 2015

#### 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						
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412						
<b>Total</b>	<b>5.2609</b>	<b>56.8897</b>	<b>42.6318</b>	<b>0.0391</b>	<b>18.0663</b>	<b>3.0883</b>	<b>21.1545</b>	<b>9.9307</b>	<b>2.8412</b>	<b>12.7719</b>						

#### 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						

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0733	0.0969	0.9814	2.2000e-003	0.2012	1.3100e-003	0.2025	0.0534	1.2000e-003	0.0546						
<b>Total</b>	<b>0.0733</b>	<b>0.0969</b>	<b>0.9814</b>	<b>2.2000e-003</b>	<b>0.2012</b>	<b>1.3100e-003</b>	<b>0.2025</b>	<b>0.0534</b>	<b>1.2000e-003</b>	<b>0.0546</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	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730						
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412						
<b>Total</b>	<b>5.2609</b>	<b>56.8897</b>	<b>42.6318</b>	<b>0.0391</b>	<b>7.0458</b>	<b>3.0883</b>	<b>10.1341</b>	<b>3.8730</b>	<b>2.8412</b>	<b>6.7142</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0733	0.0969	0.9814	2.2000e-003	0.2012	1.3100e-003	0.2025	0.0534	1.2000e-003	0.0546						
<b>Total</b>	<b>0.0733</b>	<b>0.0969</b>	<b>0.9814</b>	<b>2.2000e-003</b>	<b>0.2012</b>	<b>1.3100e-003</b>	<b>0.2025</b>	<b>0.0534</b>	<b>1.2000e-003</b>	<b>0.0546</b>						

### 3.4 Grading - 2015

#### 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						
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980						
<b>Total</b>	<b>6.7751</b>	<b>79.0467</b>	<b>50.8400</b>	<b>0.0618</b>	<b>8.6733</b>	<b>3.8022</b>	<b>12.4755</b>	<b>3.5965</b>	<b>3.4980</b>	<b>7.0945</b>						

#### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0814	0.1077	1.0905	2.4500e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606						
<b>Total</b>	<b>0.0814</b>	<b>0.1077</b>	<b>1.0905</b>	<b>2.4500e-003</b>	<b>0.2236</b>	<b>1.4600e-003</b>	<b>0.2250</b>	<b>0.0593</b>	<b>1.3400e-003</b>	<b>0.0606</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
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Category	lb/day										lb/day					
Fugitive Dust					3.3826	0.0000	3.3826	1.4026	0.0000	1.4026						
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980						
<b>Total</b>	<b>6.7751</b>	<b>79.0467</b>	<b>50.8400</b>	<b>0.0618</b>	<b>3.3826</b>	<b>3.8022</b>	<b>7.1848</b>	<b>1.4026</b>	<b>3.4980</b>	<b>4.9006</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0814	0.1077	1.0905	2.4500e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606						
<b>Total</b>	<b>0.0814</b>	<b>0.1077</b>	<b>1.0905</b>	<b>2.4500e-003</b>	<b>0.2236</b>	<b>1.4600e-003</b>	<b>0.2250</b>	<b>0.0593</b>	<b>1.3400e-003</b>	<b>0.0606</b>						

**3.5 Building Construction - 2015**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904						
<b>Total</b>	<b>3.6591</b>	<b>30.0299</b>	<b>18.7446</b>	<b>0.0268</b>		<b>2.1167</b>	<b>2.1167</b>		<b>1.9904</b>	<b>1.9904</b>						

**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						
Vendor	0.0187	0.1959	0.2127	4.2000e-004	0.0126	3.9000e-003	0.0165	3.5900e-003	3.5800e-003	7.1800e-003						
Worker	0.0326	0.0431	0.4362	9.8000e-004	0.0894	5.8000e-004	0.0900	0.0237	5.3000e-004	0.0243						
<b>Total</b>	<b>0.0513</b>	<b>0.2390</b>	<b>0.6489</b>	<b>1.4000e-003</b>	<b>0.1020</b>	<b>4.4800e-003</b>	<b>0.1065</b>	<b>0.0273</b>	<b>4.1100e-003</b>	<b>0.0314</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	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904						
<b>Total</b>	<b>3.6591</b>	<b>30.0299</b>	<b>18.7446</b>	<b>0.0268</b>		<b>2.1167</b>	<b>2.1167</b>		<b>1.9904</b>	<b>1.9904</b>						

**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						
Vendor	0.0187	0.1959	0.2127	4.2000e-004	0.0126	3.9000e-003	0.0165	3.5900e-003	3.5800e-003	7.1800e-003						
Worker	0.0326	0.0431	0.4362	9.8000e-004	0.0894	5.8000e-004	0.0900	0.0237	5.3000e-004	0.0243						
<b>Total</b>	<b>0.0513</b>	<b>0.2390</b>	<b>0.6489</b>	<b>1.4000e-003</b>	<b>0.1020</b>	<b>4.4800e-003</b>	<b>0.1065</b>	<b>0.0273</b>	<b>4.1100e-003</b>	<b>0.0314</b>						

### 3.5 Building Construction - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485						
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>						

#### 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						
Vendor	0.0166	0.1721	0.1998	4.2000e-004	0.0126	3.2900e-003	0.0159	3.5900e-003	3.0200e-003	6.6200e-003						
Worker	0.0292	0.0386	0.3909	9.8000e-004	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242						
<b>Total</b>	<b>0.0458</b>	<b>0.2106</b>	<b>0.5907</b>	<b>1.4000e-003</b>	<b>0.1020</b>	<b>3.8500e-003</b>	<b>0.1059</b>	<b>0.0273</b>	<b>3.5300e-003</b>	<b>0.0309</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	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485						
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>						

**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
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0166	0.1721	0.1998	4.2000e-004	0.0126	3.2900e-003	0.0159	3.5900e-003	3.0200e-003	6.6200e-003						
Worker	0.0292	0.0386	0.3909	9.8000e-004	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242						
<b>Total</b>	<b>0.0458</b>	<b>0.2106</b>	<b>0.5907</b>	<b>1.4000e-003</b>	<b>0.1020</b>	<b>3.8500e-003</b>	<b>0.1059</b>	<b>0.0273</b>	<b>3.5300e-003</b>	<b>0.0309</b>						



### 3.6 Paving - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>2.0898</b>	<b>22.3859</b>	<b>14.8176</b>	<b>0.0223</b>		<b>1.2610</b>	<b>1.2610</b>		<b>1.1601</b>	<b>1.1601</b>						

#### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0548	0.0723	0.7330	1.8400e-003	0.1677	1.0500e-003	0.1687	0.0445	9.6000e-004	0.0454						
<b>Total</b>	<b>0.0548</b>	<b>0.0723</b>	<b>0.7330</b>	<b>1.8400e-003</b>	<b>0.1677</b>	<b>1.0500e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.6000e-004</b>	<b>0.0454</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	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>2.0898</b>	<b>22.3859</b>	<b>14.8176</b>	<b>0.0223</b>		<b>1.2610</b>	<b>1.2610</b>		<b>1.1601</b>	<b>1.1601</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0548	0.0723	0.7330	1.8400e-003	0.1677	1.0500e-003	0.1687	0.0445	9.6000e-004	0.0454						
<b>Total</b>	<b>0.0548</b>	<b>0.0723</b>	<b>0.7330</b>	<b>1.8400e-003</b>	<b>0.1677</b>	<b>1.0500e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.6000e-004</b>	<b>0.0454</b>						

**3.7 Architectural Coating - 2016**

**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	237.9841					0.0000	0.0000		0.0000	0.0000						

Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966						
<b>Total</b>	<b>238.3525</b>	<b>2.3722</b>	<b>1.8839</b>	<b>2.9700e-003</b>		<b>0.1966</b>	<b>0.1966</b>		<b>0.1966</b>	<b>0.1966</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.3100e-003	9.6400e-003	0.0977	2.4000e-004	0.0224	1.4000e-004	0.0225	5.9300e-003	1.3000e-004	6.0600e-003						
<b>Total</b>	<b>7.3100e-003</b>	<b>9.6400e-003</b>	<b>0.0977</b>	<b>2.4000e-004</b>	<b>0.0224</b>	<b>1.4000e-004</b>	<b>0.0225</b>	<b>5.9300e-003</b>	<b>1.3000e-004</b>	<b>6.0600e-003</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	lb/day										lb/day					
Archit. Coating	237.9841					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966						
<b>Total</b>	<b>238.3525</b>	<b>2.3722</b>	<b>1.8839</b>	<b>2.9700e-003</b>		<b>0.1966</b>	<b>0.1966</b>		<b>0.1966</b>	<b>0.1966</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.3100e-003	9.6400e-003	0.0977	2.4000e-004	0.0224	1.4000e-004	0.0225	5.9300e-003	1.3000e-004	6.0600e-003						
<b>Total</b>	<b>7.3100e-003</b>	<b>9.6400e-003</b>	<b>0.0977</b>	<b>2.4000e-004</b>	<b>0.0224</b>	<b>1.4000e-004</b>	<b>0.0225</b>	<b>5.9300e-003</b>	<b>1.3000e-004</b>	<b>6.0600e-003</b>						

#### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0431	3.6133	11.1979	0.0230	1.6779	0.0562	1.7341	0.4478	0.0516	0.4993						
Unmitigated	1.0431	3.6133	11.1979	0.0230	1.6779	0.0562	1.7341	0.4478	0.0516	0.4993						

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Single Family Housing	220.11	231.84	201.71	748,893	748,893
<b>Total</b>	<b>220.11</b>	<b>231.84</b>	<b>201.71</b>	<b>748,893</b>	<b>748,893</b>

### 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
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.466361	0.070248	0.175019	0.170752	0.044803	0.007511	0.012464	0.040207	0.001012	0.001075	0.006379	0.000925	0.003245

### 5.0 Energy Detail

#### 4.4 Fleet Mix

Historical Energy Use: N

#### 5.1 Mitigation Measures Energy

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
	lb/day										lb/day					
NaturalGas Mitigated	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
NaturalGas Unmitigated	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						

#### 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
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Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	2127.78	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
<b>Total</b>		<b>0.0230</b>	<b>0.1961</b>	<b>0.0834</b>	<b>1.2500e-003</b>		<b>0.0159</b>	<b>0.0159</b>		<b>0.0159</b>	<b>0.0159</b>						

**Mitigated**

	Natural Gas 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					
Single Family Housing	2.12778	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
<b>Total</b>		<b>0.0230</b>	<b>0.1961</b>	<b>0.0834</b>	<b>1.2500e-003</b>		<b>0.0159</b>	<b>0.0159</b>		<b>0.0159</b>	<b>0.0159</b>						

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	19.4432	0.1760	13.5046	0.0185		1.7673	1.7673		1.7670	1.7670						
Unmitigated	19.4432	0.1760	13.5046	0.0185		1.7673	1.7673		1.7670	1.7670						

## 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	1.3040					0.0000	0.0000		0.0000	0.0000						
Consumer Products	12.0490					0.0000	0.0000		0.0000	0.0000						
Hearth	6.0268	0.1529	11.5608	0.0184		1.7569	1.7569		1.7567	1.7567						
Landscaping	0.0634	0.0230	1.9439	1.0000e-004		0.0103	0.0103		0.0103	0.0103						
<b>Total</b>	<b>19.4432</b>	<b>0.1760</b>	<b>13.5046</b>	<b>0.0185</b>		<b>1.7673</b>	<b>1.7673</b>		<b>1.7670</b>	<b>1.7670</b>						

### 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					
Consumer Products	12.0490					0.0000	0.0000		0.0000	0.0000						
Hearth	6.0268	0.1529	11.5608	0.0184		1.7569	1.7569		1.7567	1.7567						
Landscaping	0.0634	0.0230	1.9439	1.0000e-004		0.0103	0.0103		0.0103	0.0103						
Architectural Coating	1.3040					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>19.4432</b>	<b>0.1760</b>	<b>13.5046</b>	<b>0.0185</b>		<b>1.7673</b>	<b>1.7673</b>		<b>1.7670</b>	<b>1.7670</b>						

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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**Garretson Subdivision**  
**Riverside-South Coast County, Mitigation Report**

**Construction Mitigation Summary**

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

**OFFROAD Equipment Mitigation**

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	5	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00

Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	6	No Change	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	9	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Air Compressors	3.68000E-003	2.37200E-002	1.88400E-002	3.00000E-005	1.97000E-003	1.97000E-003						
Concrete/Industrial Saws	7.12000E-003	4.99400E-002	3.80300E-002	6.00000E-005	3.88000E-003	3.88000E-003						
Cranes	9.64600E-002	1.14425E+000	3.98990E-001	7.40000E-004	5.21400E-002	4.79600E-002						
Excavators	2.49900E-002	2.91890E-001	2.06350E-001	3.20000E-004	1.44100E-002	1.32500E-002						
Forklifts	1.06440E-001	9.14860E-001	5.72170E-001	6.90000E-004	7.67400E-002	7.06000E-002						
Generator Sets	1.03360E-001	7.64770E-001	5.73770E-001	9.90000E-004	5.50000E-002	5.50000E-002						
Graders	1.59300E-002	1.63020E-001	7.47100E-002	9.00000E-005	9.17000E-003	8.43000E-003						
Pavers	8.02000E-003	9.02600E-002	5.70400E-002	9.00000E-005	4.49000E-003	4.13000E-003						
Paving Equipment	6.14000E-003	7.13400E-002	5.08600E-002	8.00000E-005	3.54000E-003	3.26000E-003						
Rollers	6.74000E-003	6.22600E-002	4.02700E-002	5.00000E-005	4.58000E-003	4.22000E-003						
Rubber Tired Dozers	6.36600E-002	7.19350E-001	5.48820E-001	4.40000E-004	3.35600E-002	3.08800E-002						
Scrapers	4.32900E-002	5.57970E-001	3.47300E-001	4.50000E-004	2.25400E-002	2.07300E-002						
Tractors/Loaders/Backhoes	1.57340E-001	1.50000E+000	1.07468E+000	1.38000E-003	1.16870E-001	1.07520E-001						
Welders	9.07600E-002	2.76800E-001	3.01570E-001	3.80000E-004	2.28100E-002	2.28100E-002						

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Scrapers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Bac khoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

### Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input	Mitigation Input	Mitigation Input
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction
Yes	Water Exposed Area	PM10 Reduction	61.00	PM2.5 Reduction
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)
Yes	Clean Paved Road	% PM Reduction	0.00	Frequency (per day)

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.02	0.00	0.02	0.00	0.00	0.00
Demolition	Fugitive Dust	0.00	0.00	0.00	0.00	0.61	0.60
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.13	0.05	0.05	0.02	0.61	0.61

Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.05	0.05	0.04	0.02	0.61	0.61			
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			

No	Land Use	Improve Destination Accessibility	0.00		
No	Land Use	Increase Transit Accessibility	0.25		
No	Land Use	Integrate Below Market Rate Housing	0.00		
	Land Use	Land Use SubTotal	0.00		
No	Neighborhood Enhancements	Improve Pedestrian Network			
No	Neighborhood Enhancements	Provide Traffic Calming Measures			
No	Neighborhood Enhancements	Implement NEV Network	0.00		
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00		
No	Parking Policy Pricing	Limit Parking Supply	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00		
No	Transit Improvements	Provide BRT System	0.00		
No	Transit Improvements	Expand Transit Network	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		
	Transit Improvements	Transit Improvements Subtotal	0.00		
		Land Use and Site Enhancement Subtotal	0.00		
No	Commute	Implement Trip Reduction Program			
No	Commute	Transit Subsidy			
No	Commute	Implement Employee Parking "Cash Out"			
No	Commute	Workplace Parking Charge			
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00

No	Commute	Provide Ride Sharing Program		
	Commute	Commute Subtotal	0.00	
No	School Trip	Implement School Bus Program	0.00	
		Total VMT Reduction	0.00	

### Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	250.00
No	Use Low VOC Paint (Non-residential Exterior)	250.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

### Energy Mitigation Measures

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

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00

DishWasher	15.00
Fan	50.00
Refrigerator	15.00

**Water Mitigation Measures**

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

**Solid Waste Mitigation**

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



## **PROPOSED GARRETSON SUBDIVISION AIR QUALITY STUDY**

Appendix A CalEEMod Output Files  
May 7, 2014

**Annual, Summer, Winter – Unmitigated emissions include reductions from Mitigation Measure Air Quality 1 (use of super compliant architectural coatings) as a result of CalEEMod limitations in the mitigation platform**

**Garretson Subdivision**  
**Riverside-South Coast County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	23.00	Dwelling Unit	13.97	608,533.20	66

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2014
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	630.89	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics -

Land Use - Lot acreage/square feet of APNs 120020005 and 120020022 (entire project site)

Demolition -

Construction Off-road Equipment Mitigation -

Architectural Coating - VOC content of 10 g/l based on mitigation measure of using SCAQMD defined "super compliant coating"

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	100.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	10.00
tblLandUse	LandUseSquareFeet	41,400.00	608,533.20
tblLandUse	LotAcreage	7.47	13.97

## 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					
2015	0.5480	5.0035	3.3209	4.4400e-003	0.2395	0.3103	0.5498	0.1084	0.2901	0.3985						
2016	0.5767	1.6702	1.1219	1.6700e-003	6.8400e-003	0.1122	0.1190	1.8300e-003	0.1053	0.1071						
<b>Total</b>	<b>1.1247</b>	<b>6.6737</b>	<b>4.4428</b>	<b>6.1100e-003</b>	<b>0.2464</b>	<b>0.4224</b>	<b>0.6688</b>	<b>0.1102</b>	<b>0.3953</b>	<b>0.5055</b>						

#### 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					
2015	0.5480	5.0035	3.3209	4.4400e-003	0.1033	0.3103	0.4136	0.0449	0.2901	0.3350						
2016	0.5767	1.6702	1.1219	1.6700e-003	6.8400e-003	0.1122	0.1190	1.8300e-003	0.1053	0.1071						
<b>Total</b>	<b>1.1247</b>	<b>6.6737</b>	<b>4.4428</b>	<b>6.1100e-003</b>	<b>0.1102</b>	<b>0.4224</b>	<b>0.5326</b>	<b>0.0467</b>	<b>0.3953</b>	<b>0.4421</b>						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>55.28</b>	<b>0.00</b>	<b>20.36</b>	<b>57.59</b>	<b>0.00</b>	<b>12.55</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 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	2.5202	4.7900e-003	0.3875	2.4000e-004		0.0233	0.0233		0.0233	0.0233						
Energy	4.1900e-003	0.0358	0.0152	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003						
Mobile	0.1717	0.6352	1.9898	4.0000e-003	0.2839	9.6100e-003	0.2935	0.0759	8.8300e-003	0.0847						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>2.6960</b>	<b>0.6757</b>	<b>2.3925</b>	<b>4.4700e-003</b>	<b>0.2839</b>	<b>0.0358</b>	<b>0.3197</b>	<b>0.0759</b>	<b>0.0350</b>	<b>0.1108</b>						

**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	2.5202	4.7900e-003	0.3875	2.4000e-004		0.0233	0.0233		0.0233	0.0233						
Energy	4.1900e-003	0.0358	0.0152	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003						
Mobile	0.1717	0.6352	1.9898	4.0000e-003	0.2839	9.6100e-003	0.2935	0.0759	8.8300e-003	0.0847						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>2.6960</b>	<b>0.6757</b>	<b>2.3925</b>	<b>4.4700e-003</b>	<b>0.2839</b>	<b>0.0358</b>	<b>0.3197</b>	<b>0.0759</b>	<b>0.0350</b>	<b>0.1108</b>						

	ROG	NOx	CO	SO2	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	Demolition	Demolition	1/1/2015	1/28/2015	5	20	
2	Site Preparation	Site Preparation	1/29/2015	2/11/2015	5	10	
3	Grading	Grading	2/12/2015	3/25/2015	5	30	
4	Building Construction	Building Construction	3/26/2015	5/18/2016	5	300	
5	Paving	Paving	5/19/2016	6/15/2016	5	20	
6	Architectural Coating	Architectural Coating	6/16/2016	7/13/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 1,232,280; Residential Outdoor: 410,760; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41

Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	26.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

### 3.2 Demolition - 2015

#### 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					2.8400e-003	0.0000	2.8400e-003	4.3000e-004	0.0000	4.3000e-004						
Off-Road	0.0451	0.4836	0.3607	4.0000e-004		0.0245	0.0245		0.0229	0.0229						
<b>Total</b>	<b>0.0451</b>	<b>0.4836</b>	<b>0.3607</b>	<b>4.0000e-004</b>	<b>2.8400e-003</b>	<b>0.0245</b>	<b>0.0274</b>	<b>4.3000e-004</b>	<b>0.0229</b>	<b>0.0233</b>						

**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	2.3000e-004	4.1400e-003	2.6200e-003	1.0000e-005	2.2000e-004	8.0000e-005	3.0000e-004	6.0000e-005	7.0000e-005	1.3000e-004						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	5.8000e-004	8.4000e-004	8.4800e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004						
<b>Total</b>	<b>8.1000e-004</b>	<b>4.9800e-003</b>	<b>0.0111</b>	<b>3.0000e-005</b>	<b>1.8700e-003</b>	<b>9.0000e-005</b>	<b>1.9600e-003</b>	<b>5.0000e-004</b>	<b>8.0000e-005</b>	<b>5.8000e-004</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					1.1100e-003	0.0000	1.1100e-003	1.7000e-004	0.0000	1.7000e-004						
Off-Road	0.0451	0.4836	0.3607	4.0000e-004		0.0245	0.0245		0.0229	0.0229						
<b>Total</b>	<b>0.0451</b>	<b>0.4836</b>	<b>0.3607</b>	<b>4.0000e-004</b>	<b>1.1100e-003</b>	<b>0.0245</b>	<b>0.0256</b>	<b>1.7000e-004</b>	<b>0.0229</b>	<b>0.0230</b>						

**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	2.3000e-004	4.1400e-003	2.6200e-003	1.0000e-005	2.2000e-004	8.0000e-005	3.0000e-004	6.0000e-005	7.0000e-005	1.3000e-004						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	5.8000e-004	8.4000e-004	8.4800e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004						
<b>Total</b>	<b>8.1000e-004</b>	<b>4.9800e-003</b>	<b>0.0111</b>	<b>3.0000e-005</b>	<b>1.8700e-003</b>	<b>9.0000e-005</b>	<b>1.9600e-003</b>	<b>5.0000e-004</b>	<b>8.0000e-005</b>	<b>5.8000e-004</b>						

**3.3 Site Preparation - 2015**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497						
Off-Road	0.0263	0.2845	0.2132	2.0000e-004		0.0154	0.0154		0.0142	0.0142						
<b>Total</b>	<b>0.0263</b>	<b>0.2845</b>	<b>0.2132</b>	<b>2.0000e-004</b>	<b>0.0903</b>	<b>0.0154</b>	<b>0.1058</b>	<b>0.0497</b>	<b>0.0142</b>	<b>0.0639</b>						



**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	3.5000e-004	5.1000e-004	5.0900e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004						
<b>Total</b>	<b>3.5000e-004</b>	<b>5.1000e-004</b>	<b>5.0900e-003</b>	<b>1.0000e-005</b>	<b>9.9000e-004</b>	<b>1.0000e-005</b>	<b>1.0000e-003</b>	<b>2.6000e-004</b>	<b>1.0000e-005</b>	<b>2.7000e-004</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					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194						
Off-Road	0.0263	0.2845	0.2132	2.0000e-004		0.0154	0.0154		0.0142	0.0142						
<b>Total</b>	<b>0.0263</b>	<b>0.2845</b>	<b>0.2132</b>	<b>2.0000e-004</b>	<b>0.0352</b>	<b>0.0154</b>	<b>0.0507</b>	<b>0.0194</b>	<b>0.0142</b>	<b>0.0336</b>						

**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
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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					
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	3.5000e-004	5.1000e-004	5.0900e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004						
<b>Total</b>	<b>3.5000e-004</b>	<b>5.1000e-004</b>	<b>5.0900e-003</b>	<b>1.0000e-005</b>	<b>9.9000e-004</b>	<b>1.0000e-005</b>	<b>1.0000e-003</b>	<b>2.6000e-004</b>	<b>1.0000e-005</b>	<b>2.7000e-004</b>						

### 3.4 Grading - 2015

#### 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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540						
Off-Road	0.1016	1.1857	0.7626	9.3000e-004		0.0570	0.0570		0.0525	0.0525						
<b>Total</b>	<b>0.1016</b>	<b>1.1857</b>	<b>0.7626</b>	<b>9.3000e-004</b>	<b>0.1301</b>	<b>0.0570</b>	<b>0.1871</b>	<b>0.0540</b>	<b>0.0525</b>	<b>0.1064</b>						

#### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.1500e-003	1.6800e-003	0.0170	4.0000e-005	3.3000e-003	2.0000e-005	3.3200e-003	8.8000e-004	2.0000e-005	9.0000e-004						

<b>Total</b>	<b>1.1500e-003</b>	<b>1.6800e-003</b>	<b>0.0170</b>	<b>4.0000e-005</b>	<b>3.3000e-003</b>	<b>2.0000e-005</b>	<b>3.3200e-003</b>	<b>8.8000e-004</b>	<b>2.0000e-005</b>	<b>9.0000e-004</b>						
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**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					0.0507	0.0000	0.0507	0.0210	0.0000	0.0210						
Off-Road	0.1016	1.1857	0.7626	9.3000e-004		0.0570	0.0570		0.0525	0.0525						
<b>Total</b>	<b>0.1016</b>	<b>1.1857</b>	<b>0.7626</b>	<b>9.3000e-004</b>	<b>0.0507</b>	<b>0.0570</b>	<b>0.1078</b>	<b>0.0210</b>	<b>0.0525</b>	<b>0.0735</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.1500e-003	1.6800e-003	0.0170	4.0000e-005	3.3000e-003	2.0000e-005	3.3200e-003	8.8000e-004	2.0000e-005	9.0000e-004						
<b>Total</b>	<b>1.1500e-003</b>	<b>1.6800e-003</b>	<b>0.0170</b>	<b>4.0000e-005</b>	<b>3.3000e-003</b>	<b>2.0000e-005</b>	<b>3.3200e-003</b>	<b>8.8000e-004</b>	<b>2.0000e-005</b>	<b>9.0000e-004</b>						

**3.5 Building Construction - 2015**

**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	0.3677	3.0180	1.8838	2.7000e-003		0.2127	0.2127		0.2000	0.2000						
<b>Total</b>	<b>0.3677</b>	<b>3.0180</b>	<b>1.8838</b>	<b>2.7000e-003</b>		<b>0.2127</b>	<b>0.2127</b>		<b>0.2000</b>	<b>0.2000</b>						

**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						
Vendor	1.8600e-003	0.0201	0.0220	4.0000e-005	1.2500e-003	3.9000e-004	1.6400e-003	3.6000e-004	3.6000e-004	7.1000e-004						
Worker	3.0800e-003	4.5100e-003	0.0455	1.0000e-004	8.8400e-003	6.0000e-005	8.9000e-003	2.3500e-003	5.0000e-005	2.4000e-003						
<b>Total</b>	<b>4.9400e-003</b>	<b>0.0246</b>	<b>0.0674</b>	<b>1.4000e-004</b>	<b>0.0101</b>	<b>4.5000e-004</b>	<b>0.0105</b>	<b>2.7100e-003</b>	<b>4.1000e-004</b>	<b>3.1100e-003</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	0.3677	3.0180	1.8838	2.7000e-003		0.2127	0.2127		0.2000	0.2000						
<b>Total</b>	<b>0.3677</b>	<b>3.0180</b>	<b>1.8838</b>	<b>2.7000e-003</b>		<b>0.2127</b>	<b>0.2127</b>		<b>0.2000</b>	<b>0.2000</b>						

### 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						
Vendor	1.8600e-003	0.0201	0.0220	4.0000e-005	1.2500e-003	3.9000e-004	1.6400e-003	3.6000e-004	3.6000e-004	7.1000e-004						
Worker	3.0800e-003	4.5100e-003	0.0455	1.0000e-004	8.8400e-003	6.0000e-005	8.9000e-003	2.3500e-003	5.0000e-005	2.4000e-003						
<b>Total</b>	<b>4.9400e-003</b>	<b>0.0246</b>	<b>0.0674</b>	<b>1.4000e-004</b>	<b>0.0101</b>	<b>4.5000e-004</b>	<b>0.0105</b>	<b>2.7100e-003</b>	<b>4.1000e-004</b>	<b>3.1100e-003</b>						

### 3.5 Building Construction - 2016

#### 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	0.1686	1.4111	0.9161	1.3300e-003		0.0974	0.0974		0.0915	0.0915						
<b>Total</b>	<b>0.1686</b>	<b>1.4111</b>	<b>0.9161</b>	<b>1.3300e-003</b>		<b>0.0974</b>	<b>0.0974</b>		<b>0.0915</b>	<b>0.0915</b>						

**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						
Vendor	8.1000e-004	8.6800e-003	0.0102	2.0000e-005	6.1000e-004	1.6000e-004	7.8000e-004	1.8000e-004	1.5000e-004	3.2000e-004						
Worker	1.3600e-003	1.9900e-003	0.0201	5.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	3.0000e-005	1.1800e-003						
<b>Total</b>	<b>2.1700e-003</b>	<b>0.0107</b>	<b>0.0302</b>	<b>7.0000e-005</b>	<b>4.9600e-003</b>	<b>1.9000e-004</b>	<b>5.1600e-003</b>	<b>1.3400e-003</b>	<b>1.8000e-004</b>	<b>1.5000e-003</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	0.1686	1.4111	0.9161	1.3300e-003		0.0974	0.0974		0.0915	0.0915						
<b>Total</b>	<b>0.1686</b>	<b>1.4111</b>	<b>0.9161</b>	<b>1.3300e-003</b>		<b>0.0974</b>	<b>0.0974</b>		<b>0.0915</b>	<b>0.0915</b>						

**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
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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					
Vendor	8.1000e-004	8.6800e-003	0.0102	2.0000e-005	6.1000e-004	1.6000e-004	7.8000e-004	1.8000e-004	1.5000e-004	3.2000e-004						
Worker	1.3600e-003	1.9900e-003	0.0201	5.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	3.0000e-005	1.1800e-003						
<b>Total</b>	<b>2.1700e-003</b>	<b>0.0107</b>	<b>0.0302</b>	<b>7.0000e-005</b>	<b>4.9600e-003</b>	<b>1.9000e-004</b>	<b>5.1600e-003</b>	<b>1.3400e-003</b>	<b>1.8000e-004</b>	<b>1.5000e-003</b>						

### 3.6 Paving - 2016

#### 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	0.0209	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>0.0209</b>	<b>0.2239</b>	<b>0.1482</b>	<b>2.2000e-004</b>		<b>0.0126</b>	<b>0.0126</b>		<b>0.0116</b>	<b>0.0116</b>						

#### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	5.2000e-004	7.5000e-004	7.6000e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004						

<b>Total</b>	<b>5.2000e-004</b>	<b>7.5000e-004</b>	<b>7.6000e-003</b>	<b>2.0000e-005</b>	<b>1.6500e-003</b>	<b>1.0000e-005</b>	<b>1.6600e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.5000e-004</b>						
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**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	0.0209	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>0.0209</b>	<b>0.2239</b>	<b>0.1482</b>	<b>2.2000e-004</b>		<b>0.0126</b>	<b>0.0126</b>		<b>0.0116</b>	<b>0.0116</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	5.2000e-004	7.5000e-004	7.6000e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004						
<b>Total</b>	<b>5.2000e-004</b>	<b>7.5000e-004</b>	<b>7.6000e-003</b>	<b>2.0000e-005</b>	<b>1.6500e-003</b>	<b>1.0000e-005</b>	<b>1.6600e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.5000e-004</b>						

**3.7 Architectural Coating - 2016**

**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	0.3808					0.0000	0.0000		0.0000	0.0000						
Off-Road	3.6800e-003	0.0237	0.0188	3.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003						
<b>Total</b>	<b>0.3845</b>	<b>0.0237</b>	<b>0.0188</b>	<b>3.0000e-005</b>		<b>1.9700e-003</b>	<b>1.9700e-003</b>		<b>1.9700e-003</b>	<b>1.9700e-003</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.0000e-005	1.0000e-004	1.0100e-003	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005						
<b>Total</b>	<b>7.0000e-005</b>	<b>1.0000e-004</b>	<b>1.0100e-003</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</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	0.3808					0.0000	0.0000		0.0000	0.0000						
Off-Road	3.6800e-003	0.0237	0.0188	3.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003						
<b>Total</b>	<b>0.3845</b>	<b>0.0237</b>	<b>0.0188</b>	<b>3.0000e-005</b>		<b>1.9700e-003</b>	<b>1.9700e-003</b>		<b>1.9700e-003</b>	<b>1.9700e-003</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.0000e-005	1.0000e-004	1.0100e-003	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005						
<b>Total</b>	<b>7.0000e-005</b>	<b>1.0000e-004</b>	<b>1.0100e-003</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>						

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1717	0.6352	1.9898	4.0000e-003	0.2839	9.6100e-003	0.2935	0.0759	8.8300e-003	0.0847						
Unmitigated	0.1717	0.6352	1.9898	4.0000e-003	0.2839	9.6100e-003	0.2935	0.0759	8.8300e-003	0.0847						

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	220.11	231.84	201.71	748,893	748,893
Total	220.11	231.84	201.71	748,893	748,893

## 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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.466361	0.070248	0.175019	0.170752	0.044803	0.007511	0.012464	0.040207	0.001012	0.001075	0.006379	0.000925	0.003245

## 5.0 Energy Detail

### 4.4 Fleet Mix

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000						
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						
Natural Gas Mitigated	4.1900e-003	0.0358	0.0152	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003						

NaturalGas Unmitigated	4.1900e-003	0.0358	0.0152	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003							
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## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

	NaturalGas s 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					
Single Family Housing	776639	4.1900e-003	0.0358	0.0152	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003						
<b>Total</b>		<b>4.1900e-003</b>	<b>0.0358</b>	<b>0.0152</b>	<b>2.3000e-004</b>		<b>2.8900e-003</b>	<b>2.8900e-003</b>		<b>2.8900e-003</b>	<b>2.8900e-003</b>						

### Mitigated

	NaturalGas s 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					
Single Family Housing	776639	4.1900e-003	0.0358	0.0152	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003						
<b>Total</b>		<b>4.1900e-003</b>	<b>0.0358</b>	<b>0.0152</b>	<b>2.3000e-004</b>		<b>2.8900e-003</b>	<b>2.8900e-003</b>		<b>2.8900e-003</b>	<b>2.8900e-003</b>						

## 5.3 Energy by Land Use - Electricity

### Unmitigated



Category	tons/yr										MT/yr					
Mitigated	2.5202	4.7900e-003	0.3875	2.4000e-004		0.0233	0.0233		0.0233	0.0233						
Unmitigated	2.5202	4.7900e-003	0.3875	2.4000e-004		0.0233	0.0233		0.0233	0.0233						

## 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	0.2380					0.0000	0.0000		0.0000	0.0000						
Consumer Products	2.1989					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0753	1.9100e-003	0.1445	2.3000e-004		0.0220	0.0220		0.0220	0.0220						
Landscaping	7.9200e-003	2.8800e-003	0.2430	1.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003						
<b>Total</b>	<b>2.5202</b>	<b>4.7900e-003</b>	<b>0.3875</b>	<b>2.4000e-004</b>		<b>0.0233</b>	<b>0.0233</b>		<b>0.0233</b>	<b>0.0233</b>						

### 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	0.2380					0.0000	0.0000		0.0000	0.0000						
Consumer Products	2.1989					0.0000	0.0000		0.0000	0.0000						

Hearth	0.0753	1.9100e-003	0.1445	2.3000e-004		0.0220	0.0220		0.0220	0.0220						
Landscaping	7.9200e-003	2.8800e-003	0.2430	1.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003						
<b>Total</b>	<b>2.5202</b>	<b>4.7900e-003</b>	<b>0.3875</b>	<b>2.4000e-004</b>		<b>0.0233</b>	<b>0.0233</b>		<b>0.0233</b>	<b>0.0233</b>						

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				
Unmitigated				

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.49854 / 0.944733				
<b>Total</b>					

## Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.49854 / 0.944733				
<b>Total</b>					

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				
Unmitigated				

### 8.2 Waste by Land Use

#### Unmitigated



	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	27.06				
<b>Total</b>					

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	27.06				
<b>Total</b>					

**9.0 Operational Offroad**

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

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**Garretson Subdivision**  
**Riverside-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	23.00	Dwelling Unit	13.97	608,533.20	66

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2014
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	630.89	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics -

Land Use - Lot acreage/square feet of APNs 120020005 and 120020022 (entire project site)

Demolition -

Construction Off-road Equipment Mitigation -

Architectural Coating - VOC content of 10 g/l based on mitigation measure of using SCAQMD defined "super compliant coating"

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	100.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	10.00
tblLandUse	LandUseSquareFeet	41,400.00	608,533.20
tblLandUse	LotAcreage	7.47	13.97

## 2.0 Emissions Summary

### 2.1 Overall Construction (Maximum Daily Emission)

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.8603	79.1477	52.1022	0.0644	18.2675	3.8036	21.3571	9.9840	3.4993	12.8265						
2016	38.4536	28.7104	19.1361	0.0283	0.1677	1.9712	2.0732	0.0445	1.8520	1.8793						
<b>Total</b>	<b>45.3139</b>	<b>107.8580</b>	<b>71.2383</b>	<b>0.0927</b>	<b>18.4351</b>	<b>5.7749</b>	<b>23.4303</b>	<b>10.0285</b>	<b>5.3513</b>	<b>14.7057</b>						

#### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.8603	79.1477	52.1022	0.0644	7.2470	3.8036	10.3366	3.9263	3.4993	6.7688						
2016	38.4536	28.7104	19.1361	0.0283	0.1677	1.9712	2.0732	0.0445	1.8520	1.8793						
<b>Total</b>	<b>45.3139</b>	<b>107.8580</b>	<b>71.2383</b>	<b>0.0927</b>	<b>7.4147</b>	<b>5.7749</b>	<b>12.4098</b>	<b>3.9708</b>	<b>5.3513</b>	<b>8.6480</b>						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>59.78</b>	<b>0.00</b>	<b>47.03</b>	<b>60.40</b>	<b>0.00</b>	<b>41.19</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 2.2 Overall Operational



### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/28/2015	5	20	
2	Site Preparation	Site Preparation	1/29/2015	2/11/2015	5	10	
3	Grading	Grading	2/12/2015	3/25/2015	5	30	
4	Building Construction	Building Construction	3/26/2015	5/18/2016	5	300	
5	Paving	Paving	5/19/2016	6/15/2016	5	20	
6	Architectural Coating	Architectural Coating	6/16/2016	7/13/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 1,232,280; Residential Outdoor: 410,760; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20

Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	26.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

### 3.2 Demolition - 2015

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2845	0.0000	0.2845	0.0431	0.0000	0.0431						

Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858						
<b>Total</b>	<b>4.5083</b>	<b>48.3629</b>	<b>36.0738</b>	<b>0.0399</b>	<b>0.2845</b>	<b>2.4508</b>	<b>2.7353</b>	<b>0.0431</b>	<b>2.2858</b>	<b>2.3289</b>						

**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	0.0221	0.3921	0.2342	9.3000e-004	0.0227	7.7200e-003	0.0304	6.2100e-003	7.1000e-003	0.0133						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0639	0.0758	0.9467	2.0100e-003	0.1677	1.0900e-003	0.1688	0.0445	1.0000e-003	0.0455						
<b>Total</b>	<b>0.0859</b>	<b>0.4679</b>	<b>1.1808</b>	<b>2.9400e-003</b>	<b>0.1903</b>	<b>8.8100e-003</b>	<b>0.1992</b>	<b>0.0507</b>	<b>8.1000e-003</b>	<b>0.0588</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	lb/day										lb/day					
Fugitive Dust					0.1109	0.0000	0.1109	0.0168	0.0000	0.0168						
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858						
<b>Total</b>	<b>4.5083</b>	<b>48.3629</b>	<b>36.0738</b>	<b>0.0399</b>	<b>0.1109</b>	<b>2.4508</b>	<b>2.5618</b>	<b>0.0168</b>	<b>2.2858</b>	<b>2.3026</b>						

**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	0.0221	0.3921	0.2342	9.3000e-004	0.0227	7.7200e-003	0.0304	6.2100e-003	7.1000e-003	0.0133						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0639	0.0758	0.9467	2.0100e-003	0.1677	1.0900e-003	0.1688	0.0445	1.0000e-003	0.0455						
<b>Total</b>	<b>0.0859</b>	<b>0.4679</b>	<b>1.1808</b>	<b>2.9400e-003</b>	<b>0.1903</b>	<b>8.8100e-003</b>	<b>0.1992</b>	<b>0.0507</b>	<b>8.1000e-003</b>	<b>0.0588</b>						

### 3.3 Site Preparation - 2015

#### 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						
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412						
<b>Total</b>	<b>5.2609</b>	<b>56.8897</b>	<b>42.6318</b>	<b>0.0391</b>	<b>18.0663</b>	<b>3.0883</b>	<b>21.1545</b>	<b>9.9307</b>	<b>2.8412</b>	<b>12.7719</b>						

#### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0767	0.0909	1.1360	2.4100e-003	0.2012	1.3100e-003	0.2025	0.0534	1.2000e-003	0.0546						
<b>Total</b>	<b>0.0767</b>	<b>0.0909</b>	<b>1.1360</b>	<b>2.4100e-003</b>	<b>0.2012</b>	<b>1.3100e-003</b>	<b>0.2025</b>	<b>0.0534</b>	<b>1.2000e-003</b>	<b>0.0546</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	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730						
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412						
<b>Total</b>	<b>5.2609</b>	<b>56.8897</b>	<b>42.6318</b>	<b>0.0391</b>	<b>7.0458</b>	<b>3.0883</b>	<b>10.1341</b>	<b>3.8730</b>	<b>2.8412</b>	<b>6.7142</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0767	0.0909	1.1360	2.4100e-003	0.2012	1.3100e-003	0.2025	0.0534	1.2000e-003	0.0546						
<b>Total</b>	<b>0.0767</b>	<b>0.0909</b>	<b>1.1360</b>	<b>2.4100e-003</b>	<b>0.2012</b>	<b>1.3100e-003</b>	<b>0.2025</b>	<b>0.0534</b>	<b>1.2000e-003</b>	<b>0.0546</b>						

### 3.4 Grading - 2015

#### 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						
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980						
<b>Total</b>	<b>6.7751</b>	<b>79.0467</b>	<b>50.8400</b>	<b>0.0618</b>	<b>8.6733</b>	<b>3.8022</b>	<b>12.4755</b>	<b>3.5965</b>	<b>3.4980</b>	<b>7.0945</b>						

#### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0852	0.1010	1.2622	2.6800e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606						
<b>Total</b>	<b>0.0852</b>	<b>0.1010</b>	<b>1.2622</b>	<b>2.6800e-003</b>	<b>0.2236</b>	<b>1.4600e-003</b>	<b>0.2250</b>	<b>0.0593</b>	<b>1.3400e-003</b>	<b>0.0606</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	lb/day										lb/day					
Fugitive Dust					3.3826	0.0000	3.3826	1.4026	0.0000	1.4026						
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980						
<b>Total</b>	<b>6.7751</b>	<b>79.0467</b>	<b>50.8400</b>	<b>0.0618</b>	<b>3.3826</b>	<b>3.8022</b>	<b>7.1848</b>	<b>1.4026</b>	<b>3.4980</b>	<b>4.9006</b>						

### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0852	0.1010	1.2622	2.6800e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606						
<b>Total</b>	<b>0.0852</b>	<b>0.1010</b>	<b>1.2622</b>	<b>2.6800e-003</b>	<b>0.2236</b>	<b>1.4600e-003</b>	<b>0.2250</b>	<b>0.0593</b>	<b>1.3400e-003</b>	<b>0.0606</b>						

### **3.5 Building Construction - 2015**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904						

<b>Total</b>	<b>3.6591</b>	<b>30.0299</b>	<b>18.7446</b>	<b>0.0268</b>		<b>2.1167</b>	<b>2.1167</b>		<b>1.9904</b>	<b>1.9904</b>						
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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	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						
Vendor	0.0176	0.1909	0.1888	4.2000e-004	0.0126	3.8600e-003	0.0164	3.5900e-003	3.5500e-003	7.1400e-003						
Worker	0.0341	0.0404	0.5049	1.0700e-003	0.0894	5.8000e-004	0.0900	0.0237	5.3000e-004	0.0243						
<b>Total</b>	<b>0.0516</b>	<b>0.2313</b>	<b>0.6937</b>	<b>1.4900e-003</b>	<b>0.1020</b>	<b>4.4400e-003</b>	<b>0.1064</b>	<b>0.0273</b>	<b>4.0800e-003</b>	<b>0.0314</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	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904						
<b>Total</b>	<b>3.6591</b>	<b>30.0299</b>	<b>18.7446</b>	<b>0.0268</b>		<b>2.1167</b>	<b>2.1167</b>		<b>1.9904</b>	<b>1.9904</b>						

**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						
Vendor	0.0176	0.1909	0.1888	4.2000e-004	0.0126	3.8600e-003	0.0164	3.5900e-003	3.5500e-003	7.1400e-003						
Worker	0.0341	0.0404	0.5049	1.0700e-003	0.0894	5.8000e-004	0.0900	0.0237	5.3000e-004	0.0243						
<b>Total</b>	<b>0.0516</b>	<b>0.2313</b>	<b>0.6937</b>	<b>1.4900e-003</b>	<b>0.1020</b>	<b>4.4400e-003</b>	<b>0.1064</b>	<b>0.0273</b>	<b>4.0800e-003</b>	<b>0.0314</b>						

### 3.5 Building Construction - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485						
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>						

#### 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						
Vendor	0.0156	0.1678	0.1758	4.2000e-004	0.0126	3.2600e-003	0.0158	3.5900e-003	3.0000e-003	6.5900e-003						
Worker	0.0307	0.0362	0.4537	1.0700e-003	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242						
<b>Total</b>	<b>0.0462</b>	<b>0.2040</b>	<b>0.6294</b>	<b>1.4900e-003</b>	<b>0.1020</b>	<b>3.8200e-003</b>	<b>0.1058</b>	<b>0.0273</b>	<b>3.5100e-003</b>	<b>0.0308</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	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485						
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>						

**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
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0156	0.1678	0.1758	4.2000e-004	0.0126	3.2600e-003	0.0158	3.5900e-003	3.0000e-003	6.5900e-003						
Worker	0.0307	0.0362	0.4537	1.0700e-003	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242						
<b>Total</b>	<b>0.0462</b>	<b>0.2040</b>	<b>0.6294</b>	<b>1.4900e-003</b>	<b>0.1020</b>	<b>3.8200e-003</b>	<b>0.1058</b>	<b>0.0273</b>	<b>3.5100e-003</b>	<b>0.0308</b>						

### 3.6 Paving - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>2.0898</b>	<b>22.3859</b>	<b>14.8176</b>	<b>0.0223</b>		<b>1.2610</b>	<b>1.2610</b>		<b>1.1601</b>	<b>1.1601</b>						

#### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0575	0.0679	0.8507	2.0100e-003	0.1677	1.0500e-003	0.1687	0.0445	9.6000e-004	0.0454						
<b>Total</b>	<b>0.0575</b>	<b>0.0679</b>	<b>0.8507</b>	<b>2.0100e-003</b>	<b>0.1677</b>	<b>1.0500e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.6000e-004</b>	<b>0.0454</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	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>2.0898</b>	<b>22.3859</b>	<b>14.8176</b>	<b>0.0223</b>		<b>1.2610</b>	<b>1.2610</b>		<b>1.1601</b>	<b>1.1601</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0575	0.0679	0.8507	2.0100e-003	0.1677	1.0500e-003	0.1687	0.0445	9.6000e-004	0.0454						
<b>Total</b>	<b>0.0575</b>	<b>0.0679</b>	<b>0.8507</b>	<b>2.0100e-003</b>	<b>0.1677</b>	<b>1.0500e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.6000e-004</b>	<b>0.0454</b>						

**3.7 Architectural Coating - 2016**

**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	38.0775					0.0000	0.0000		0.0000	0.0000						



Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966						
<b>Total</b>	<b>38.4459</b>	<b>2.3722</b>	<b>1.8839</b>	<b>2.9700e-003</b>		<b>0.1966</b>	<b>0.1966</b>		<b>0.1966</b>	<b>0.1966</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.6600e-003	9.0500e-003	0.1134	2.7000e-004	0.0224	1.4000e-004	0.0225	5.9300e-003	1.3000e-004	6.0600e-003						
<b>Total</b>	<b>7.6600e-003</b>	<b>9.0500e-003</b>	<b>0.1134</b>	<b>2.7000e-004</b>	<b>0.0224</b>	<b>1.4000e-004</b>	<b>0.0225</b>	<b>5.9300e-003</b>	<b>1.3000e-004</b>	<b>6.0600e-003</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	lb/day										lb/day					
Archit. Coating	38.0775					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966						
<b>Total</b>	<b>38.4459</b>	<b>2.3722</b>	<b>1.8839</b>	<b>2.9700e-003</b>		<b>0.1966</b>	<b>0.1966</b>		<b>0.1966</b>	<b>0.1966</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.6600e-003	9.0500e-003	0.1134	2.7000e-004	0.0224	1.4000e-004	0.0225	5.9300e-003	1.3000e-004	6.0600e-003						
<b>Total</b>	<b>7.6600e-003</b>	<b>9.0500e-003</b>	<b>0.1134</b>	<b>2.7000e-004</b>	<b>0.0224</b>	<b>1.4000e-004</b>	<b>0.0225</b>	<b>5.9300e-003</b>	<b>1.3000e-004</b>	<b>6.0600e-003</b>						

#### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0652	3.4624	12.1002	0.0247	1.6779	0.0558	1.7337	0.4478	0.0513	0.4990						
Unmitigated	1.0652	3.4624	12.1002	0.0247	1.6779	0.0558	1.7337	0.4478	0.0513	0.4990						

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Single Family Housing	220.11	231.84	201.71	748,893	748,893
<b>Total</b>	<b>220.11</b>	<b>231.84</b>	<b>201.71</b>	<b>748,893</b>	<b>748,893</b>

### 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
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.466361	0.070248	0.175019	0.170752	0.044803	0.007511	0.012464	0.040207	0.001012	0.001075	0.006379	0.000925	0.003245

### 5.0 Energy Detail

#### 4.4 Fleet Mix

Historical Energy Use: N

#### 5.1 Mitigation Measures Energy

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
	lb/day										lb/day					
NaturalGas Mitigated	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
NaturalGas Unmitigated	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						

#### 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
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Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	2127.78	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
<b>Total</b>		<b>0.0230</b>	<b>0.1961</b>	<b>0.0834</b>	<b>1.2500e-003</b>		<b>0.0159</b>	<b>0.0159</b>		<b>0.0159</b>	<b>0.0159</b>						

**Mitigated**

	Natural Gas 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					
Single Family Housing	2.12778	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
<b>Total</b>		<b>0.0230</b>	<b>0.1961</b>	<b>0.0834</b>	<b>1.2500e-003</b>		<b>0.0159</b>	<b>0.0159</b>		<b>0.0159</b>	<b>0.0159</b>						

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	19.4432	0.1760	13.5046	0.0185		1.7673	1.7673		1.7670	1.7670						
Unmitigated	19.4432	0.1760	13.5046	0.0185		1.7673	1.7673		1.7670	1.7670						

## 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	1.3040					0.0000	0.0000		0.0000	0.0000						
Consumer Products	12.0490					0.0000	0.0000		0.0000	0.0000						
Hearth	6.0268	0.1529	11.5608	0.0184		1.7569	1.7569		1.7567	1.7567						
Landscaping	0.0634	0.0230	1.9439	1.0000e-004		0.0103	0.0103		0.0103	0.0103						
<b>Total</b>	<b>19.4432</b>	<b>0.1760</b>	<b>13.5046</b>	<b>0.0185</b>		<b>1.7673</b>	<b>1.7673</b>		<b>1.7670</b>	<b>1.7670</b>						

### 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					
Consumer Products	12.0490					0.0000	0.0000		0.0000	0.0000						
Hearth	6.0268	0.1529	11.5608	0.0184		1.7569	1.7569		1.7567	1.7567						
Landscaping	0.0634	0.0230	1.9439	1.0000e-004		0.0103	0.0103		0.0103	0.0103						
Architectural Coating	1.3040					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>19.4432</b>	<b>0.1760</b>	<b>13.5046</b>	<b>0.0185</b>		<b>1.7673</b>	<b>1.7673</b>		<b>1.7670</b>	<b>1.7670</b>						

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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**Garretson Subdivision**  
**Riverside-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	23.00	Dwelling Unit	13.97	608,533.20	66

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2014
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	630.89	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics -

Land Use - Lot acreage/square feet of APNs 120020005 and 120020022 (entire project site)

Demolition -

Construction Off-road Equipment Mitigation -

Architectural Coating - VOC content of 10 g/l based on mitigation measure of using SCAQMD defined "super compliant coating"

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	100.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	10.00
tblLandUse	LandUseSquareFeet	41,400.00	608,533.20
tblLandUse	LotAcreage	7.47	13.97

## 2.0 Emissions Summary

### 2.1 Overall Construction (Maximum Daily Emission)

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.8566	79.1544	51.9304	0.0642	18.2675	3.8036	21.3571	9.9840	3.4993	12.8265						
2016	38.4532	28.7169	19.0974	0.0282	0.1677	1.9712	2.0732	0.0445	1.8520	1.8793						
<b>Total</b>	<b>45.3098</b>	<b>107.8713</b>	<b>71.0278</b>	<b>0.0924</b>	<b>18.4351</b>	<b>5.7749</b>	<b>23.4303</b>	<b>10.0285</b>	<b>5.3513</b>	<b>14.7058</b>						

#### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.8566	79.1544	51.9304	0.0642	7.2470	3.8036	10.3366	3.9263	3.4993	6.7688						
2016	38.4532	28.7169	19.0974	0.0282	0.1677	1.9712	2.0732	0.0445	1.8520	1.8793						
<b>Total</b>	<b>45.3098</b>	<b>107.8713</b>	<b>71.0278</b>	<b>0.0924</b>	<b>7.4147</b>	<b>5.7749</b>	<b>12.4099</b>	<b>3.9708</b>	<b>5.3513</b>	<b>8.6481</b>						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>59.78</b>	<b>0.00</b>	<b>47.03</b>	<b>60.40</b>	<b>0.00</b>	<b>41.19</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 2.2 Overall Operational





### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/28/2015	5	20	
2	Site Preparation	Site Preparation	1/29/2015	2/11/2015	5	10	
3	Grading	Grading	2/12/2015	3/25/2015	5	30	
4	Building Construction	Building Construction	3/26/2015	5/18/2016	5	300	
5	Paving	Paving	5/19/2016	6/15/2016	5	20	
6	Architectural Coating	Architectural Coating	6/16/2016	7/13/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 1,232,280; Residential Outdoor: 410,760; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20

Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	26.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

### 3.2 Demolition - 2015

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2845	0.0000	0.2845	0.0431	0.0000	0.0431						

Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858						
<b>Total</b>	<b>4.5083</b>	<b>48.3629</b>	<b>36.0738</b>	<b>0.0399</b>	<b>0.2845</b>	<b>2.4508</b>	<b>2.7353</b>	<b>0.0431</b>	<b>2.2858</b>	<b>2.3289</b>						

**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	0.0229	0.4071	0.2556	9.2000e-004	0.0227	7.7500e-003	0.0304	6.2100e-003	7.1200e-003	0.0133						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0611	0.0808	0.8178	1.8400e-003	0.1677	1.0900e-003	0.1688	0.0445	1.0000e-003	0.0455						
<b>Total</b>	<b>0.0840</b>	<b>0.4879</b>	<b>1.0735</b>	<b>2.7600e-003</b>	<b>0.1903</b>	<b>8.8400e-003</b>	<b>0.1992</b>	<b>0.0507</b>	<b>8.1200e-003</b>	<b>0.0588</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	lb/day										lb/day					
Fugitive Dust					0.1109	0.0000	0.1109	0.0168	0.0000	0.0168						
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858						
<b>Total</b>	<b>4.5083</b>	<b>48.3629</b>	<b>36.0738</b>	<b>0.0399</b>	<b>0.1109</b>	<b>2.4508</b>	<b>2.5618</b>	<b>0.0168</b>	<b>2.2858</b>	<b>2.3026</b>						

**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	0.0229	0.4071	0.2556	9.2000e-004	0.0227	7.7500e-003	0.0304	6.2100e-003	7.1200e-003	0.0133						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0611	0.0808	0.8178	1.8400e-003	0.1677	1.0900e-003	0.1688	0.0445	1.0000e-003	0.0455						
<b>Total</b>	<b>0.0840</b>	<b>0.4879</b>	<b>1.0735</b>	<b>2.7600e-003</b>	<b>0.1903</b>	<b>8.8400e-003</b>	<b>0.1992</b>	<b>0.0507</b>	<b>8.1200e-003</b>	<b>0.0588</b>						

### 3.3 Site Preparation - 2015

#### 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						
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412						
<b>Total</b>	<b>5.2609</b>	<b>56.8897</b>	<b>42.6318</b>	<b>0.0391</b>	<b>18.0663</b>	<b>3.0883</b>	<b>21.1545</b>	<b>9.9307</b>	<b>2.8412</b>	<b>12.7719</b>						

#### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0733	0.0969	0.9814	2.2000e-003	0.2012	1.3100e-003	0.2025	0.0534	1.2000e-003	0.0546						
<b>Total</b>	<b>0.0733</b>	<b>0.0969</b>	<b>0.9814</b>	<b>2.2000e-003</b>	<b>0.2012</b>	<b>1.3100e-003</b>	<b>0.2025</b>	<b>0.0534</b>	<b>1.2000e-003</b>	<b>0.0546</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	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730						
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412						
<b>Total</b>	<b>5.2609</b>	<b>56.8897</b>	<b>42.6318</b>	<b>0.0391</b>	<b>7.0458</b>	<b>3.0883</b>	<b>10.1341</b>	<b>3.8730</b>	<b>2.8412</b>	<b>6.7142</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0733	0.0969	0.9814	2.2000e-003	0.2012	1.3100e-003	0.2025	0.0534	1.2000e-003	0.0546						
<b>Total</b>	<b>0.0733</b>	<b>0.0969</b>	<b>0.9814</b>	<b>2.2000e-003</b>	<b>0.2012</b>	<b>1.3100e-003</b>	<b>0.2025</b>	<b>0.0534</b>	<b>1.2000e-003</b>	<b>0.0546</b>						

### 3.4 Grading - 2015

#### 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						
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980						
<b>Total</b>	<b>6.7751</b>	<b>79.0467</b>	<b>50.8400</b>	<b>0.0618</b>	<b>8.6733</b>	<b>3.8022</b>	<b>12.4755</b>	<b>3.5965</b>	<b>3.4980</b>	<b>7.0945</b>						

#### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0814	0.1077	1.0905	2.4500e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606						
<b>Total</b>	<b>0.0814</b>	<b>0.1077</b>	<b>1.0905</b>	<b>2.4500e-003</b>	<b>0.2236</b>	<b>1.4600e-003</b>	<b>0.2250</b>	<b>0.0593</b>	<b>1.3400e-003</b>	<b>0.0606</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	lb/day										lb/day					
Fugitive Dust					3.3826	0.0000	3.3826	1.4026	0.0000	1.4026						
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980						
<b>Total</b>	<b>6.7751</b>	<b>79.0467</b>	<b>50.8400</b>	<b>0.0618</b>	<b>3.3826</b>	<b>3.8022</b>	<b>7.1848</b>	<b>1.4026</b>	<b>3.4980</b>	<b>4.9006</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0814	0.1077	1.0905	2.4500e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606						
<b>Total</b>	<b>0.0814</b>	<b>0.1077</b>	<b>1.0905</b>	<b>2.4500e-003</b>	<b>0.2236</b>	<b>1.4600e-003</b>	<b>0.2250</b>	<b>0.0593</b>	<b>1.3400e-003</b>	<b>0.0606</b>						

**3.5 Building Construction - 2015**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904						



<b>Total</b>	<b>3.6591</b>	<b>30.0299</b>	<b>18.7446</b>	<b>0.0268</b>		<b>2.1167</b>	<b>2.1167</b>		<b>1.9904</b>	<b>1.9904</b>						
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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	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						
Vendor	0.0187	0.1959	0.2127	4.2000e-004	0.0126	3.9000e-003	0.0165	3.5900e-003	3.5800e-003	7.1800e-003						
Worker	0.0326	0.0431	0.4362	9.8000e-004	0.0894	5.8000e-004	0.0900	0.0237	5.3000e-004	0.0243						
<b>Total</b>	<b>0.0513</b>	<b>0.2390</b>	<b>0.6489</b>	<b>1.4000e-003</b>	<b>0.1020</b>	<b>4.4800e-003</b>	<b>0.1065</b>	<b>0.0273</b>	<b>4.1100e-003</b>	<b>0.0314</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	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904						
<b>Total</b>	<b>3.6591</b>	<b>30.0299</b>	<b>18.7446</b>	<b>0.0268</b>		<b>2.1167</b>	<b>2.1167</b>		<b>1.9904</b>	<b>1.9904</b>						

**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						
Vendor	0.0187	0.1959	0.2127	4.2000e-004	0.0126	3.9000e-003	0.0165	3.5900e-003	3.5800e-003	7.1800e-003						
Worker	0.0326	0.0431	0.4362	9.8000e-004	0.0894	5.8000e-004	0.0900	0.0237	5.3000e-004	0.0243						
<b>Total</b>	<b>0.0513</b>	<b>0.2390</b>	<b>0.6489</b>	<b>1.4000e-003</b>	<b>0.1020</b>	<b>4.4800e-003</b>	<b>0.1065</b>	<b>0.0273</b>	<b>4.1100e-003</b>	<b>0.0314</b>						

### 3.5 Building Construction - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485						
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>						

#### 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						
Vendor	0.0166	0.1721	0.1998	4.2000e-004	0.0126	3.2900e-003	0.0159	3.5900e-003	3.0200e-003	6.6200e-003						
Worker	0.0292	0.0386	0.3909	9.8000e-004	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242						
<b>Total</b>	<b>0.0458</b>	<b>0.2106</b>	<b>0.5907</b>	<b>1.4000e-003</b>	<b>0.1020</b>	<b>3.8500e-003</b>	<b>0.1059</b>	<b>0.0273</b>	<b>3.5300e-003</b>	<b>0.0309</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	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485						
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>						

**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						
Vendor	0.0166	0.1721	0.1998	4.2000e-004	0.0126	3.2900e-003	0.0159	3.5900e-003	3.0200e-003	6.6200e-003						
Worker	0.0292	0.0386	0.3909	9.8000e-004	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242						
<b>Total</b>	<b>0.0458</b>	<b>0.2106</b>	<b>0.5907</b>	<b>1.4000e-003</b>	<b>0.1020</b>	<b>3.8500e-003</b>	<b>0.1059</b>	<b>0.0273</b>	<b>3.5300e-003</b>	<b>0.0309</b>						

### 3.6 Paving - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>2.0898</b>	<b>22.3859</b>	<b>14.8176</b>	<b>0.0223</b>		<b>1.2610</b>	<b>1.2610</b>		<b>1.1601</b>	<b>1.1601</b>						

#### 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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0548	0.0723	0.7330	1.8400e-003	0.1677	1.0500e-003	0.1687	0.0445	9.6000e-004	0.0454						
<b>Total</b>	<b>0.0548</b>	<b>0.0723</b>	<b>0.7330</b>	<b>1.8400e-003</b>	<b>0.1677</b>	<b>1.0500e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.6000e-004</b>	<b>0.0454</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	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>2.0898</b>	<b>22.3859</b>	<b>14.8176</b>	<b>0.0223</b>		<b>1.2610</b>	<b>1.2610</b>		<b>1.1601</b>	<b>1.1601</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0548	0.0723	0.7330	1.8400e-003	0.1677	1.0500e-003	0.1687	0.0445	9.6000e-004	0.0454						
<b>Total</b>	<b>0.0548</b>	<b>0.0723</b>	<b>0.7330</b>	<b>1.8400e-003</b>	<b>0.1677</b>	<b>1.0500e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.6000e-004</b>	<b>0.0454</b>						

**3.7 Architectural Coating - 2016**

**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	38.0775					0.0000	0.0000		0.0000	0.0000						

Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966						
<b>Total</b>	<b>38.4459</b>	<b>2.3722</b>	<b>1.8839</b>	<b>2.9700e-003</b>		<b>0.1966</b>	<b>0.1966</b>		<b>0.1966</b>	<b>0.1966</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.3100e-003	9.6400e-003	0.0977	2.4000e-004	0.0224	1.4000e-004	0.0225	5.9300e-003	1.3000e-004	6.0600e-003						
<b>Total</b>	<b>7.3100e-003</b>	<b>9.6400e-003</b>	<b>0.0977</b>	<b>2.4000e-004</b>	<b>0.0224</b>	<b>1.4000e-004</b>	<b>0.0225</b>	<b>5.9300e-003</b>	<b>1.3000e-004</b>	<b>6.0600e-003</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	lb/day										lb/day					
Archit. Coating	38.0775					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966						
<b>Total</b>	<b>38.4459</b>	<b>2.3722</b>	<b>1.8839</b>	<b>2.9700e-003</b>		<b>0.1966</b>	<b>0.1966</b>		<b>0.1966</b>	<b>0.1966</b>						

**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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.3100e-003	9.6400e-003	0.0977	2.4000e-004	0.0224	1.4000e-004	0.0225	5.9300e-003	1.3000e-004	6.0600e-003						
<b>Total</b>	<b>7.3100e-003</b>	<b>9.6400e-003</b>	<b>0.0977</b>	<b>2.4000e-004</b>	<b>0.0224</b>	<b>1.4000e-004</b>	<b>0.0225</b>	<b>5.9300e-003</b>	<b>1.3000e-004</b>	<b>6.0600e-003</b>						

#### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0431	3.6133	11.1979	0.0230	1.6779	0.0562	1.7341	0.4478	0.0516	0.4993						
Unmitigated	1.0431	3.6133	11.1979	0.0230	1.6779	0.0562	1.7341	0.4478	0.0516	0.4993						

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Single Family Housing	220.11	231.84	201.71	748,893	748,893
<b>Total</b>	<b>220.11</b>	<b>231.84</b>	<b>201.71</b>	<b>748,893</b>	<b>748,893</b>

### 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
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.466361	0.070248	0.175019	0.170752	0.044803	0.007511	0.012464	0.040207	0.001012	0.001075	0.006379	0.000925	0.003245

### 5.0 Energy Detail

#### 4.4 Fleet Mix

Historical Energy Use: N

#### 5.1 Mitigation Measures Energy

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
	lb/day										lb/day					
NaturalGas Mitigated	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
NaturalGas Unmitigated	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						

#### 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
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Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	2127.78	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
<b>Total</b>		<b>0.0230</b>	<b>0.1961</b>	<b>0.0834</b>	<b>1.2500e-003</b>		<b>0.0159</b>	<b>0.0159</b>		<b>0.0159</b>	<b>0.0159</b>						

**Mitigated**

	Natural Gas 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					
Single Family Housing	2.12778	0.0230	0.1961	0.0834	1.2500e-003		0.0159	0.0159		0.0159	0.0159						
<b>Total</b>		<b>0.0230</b>	<b>0.1961</b>	<b>0.0834</b>	<b>1.2500e-003</b>		<b>0.0159</b>	<b>0.0159</b>		<b>0.0159</b>	<b>0.0159</b>						

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	19.4432	0.1760	13.5046	0.0185		1.7673	1.7673		1.7670	1.7670						
Unmitigated	19.4432	0.1760	13.5046	0.0185		1.7673	1.7673		1.7670	1.7670						

## 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	1.3040					0.0000	0.0000		0.0000	0.0000						
Consumer Products	12.0490					0.0000	0.0000		0.0000	0.0000						
Hearth	6.0268	0.1529	11.5608	0.0184		1.7569	1.7569		1.7567	1.7567						
Landscaping	0.0634	0.0230	1.9439	1.0000e-004		0.0103	0.0103		0.0103	0.0103						
<b>Total</b>	<b>19.4432</b>	<b>0.1760</b>	<b>13.5046</b>	<b>0.0185</b>		<b>1.7673</b>	<b>1.7673</b>		<b>1.7670</b>	<b>1.7670</b>						

### 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					
Consumer Products	12.0490					0.0000	0.0000		0.0000	0.0000						
Hearth	6.0268	0.1529	11.5608	0.0184		1.7569	1.7569		1.7567	1.7567						
Landscaping	0.0634	0.0230	1.9439	1.0000e-004		0.0103	0.0103		0.0103	0.0103						
Architectural Coating	1.3040					0.0000	0.0000		0.0000	0.0000						
<b>Total</b>	<b>19.4432</b>	<b>0.1760</b>	<b>13.5046</b>	<b>0.0185</b>		<b>1.7673</b>	<b>1.7673</b>		<b>1.7670</b>	<b>1.7670</b>						

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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**Garretson Subdivision**  
**Riverside-South Coast County, Mitigation Report**

**Construction Mitigation Summary**

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

**OFFROAD Equipment Mitigation**

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	5	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00

Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	6	No Change	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	9	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Air Compressors	3.68000E-003	2.37200E-002	1.88400E-002	3.00000E-005	1.97000E-003	1.97000E-003						
Concrete/Industrial Saws	7.12000E-003	4.99400E-002	3.80300E-002	6.00000E-005	3.88000E-003	3.88000E-003						
Cranes	9.64600E-002	1.14425E+000	3.98990E-001	7.40000E-004	5.21400E-002	4.79600E-002						
Excavators	2.49900E-002	2.91890E-001	2.06350E-001	3.20000E-004	1.44100E-002	1.32500E-002						
Forklifts	1.06440E-001	9.14860E-001	5.72170E-001	6.90000E-004	7.67400E-002	7.06000E-002						
Generator Sets	1.03360E-001	7.64770E-001	5.73770E-001	9.90000E-004	5.50000E-002	5.50000E-002						
Graders	1.59300E-002	1.63020E-001	7.47100E-002	9.00000E-005	9.17000E-003	8.43000E-003						
Pavers	8.02000E-003	9.02600E-002	5.70400E-002	9.00000E-005	4.49000E-003	4.13000E-003						
Paving Equipment	6.14000E-003	7.13400E-002	5.08600E-002	8.00000E-005	3.54000E-003	3.26000E-003						
Rollers	6.74000E-003	6.22600E-002	4.02700E-002	5.00000E-005	4.58000E-003	4.22000E-003						
Rubber Tired Dozers	6.36600E-002	7.19350E-001	5.48820E-001	4.40000E-004	3.35600E-002	3.08800E-002						
Scrapers	4.32900E-002	5.57970E-001	3.47300E-001	4.50000E-004	2.25400E-002	2.07300E-002						
Tractors/Loaders/Backhoes	1.57340E-001	1.50000E+000	1.07468E+000	1.38000E-003	1.16870E-001	1.07520E-001						
Welders	9.07600E-002	2.76800E-001	3.01570E-001	3.80000E-004	2.28100E-002	2.28100E-002						

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Scrapers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Bac khoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

### Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input	Mitigation Input	Mitigation Input
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction
Yes	Water Exposed Area	PM10 Reduction	61.00	PM2.5 Reduction
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)
Yes	Clean Paved Road	% PM Reduction	0.00	Frequency (per day)

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.02	0.00	0.02	0.00	0.00	0.00
Demolition	Fugitive Dust	0.00	0.00	0.00	0.00	0.61	0.60
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.13	0.05	0.05	0.02	0.61	0.61

Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.09	0.05	0.04	0.02	0.61	0.61					
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			



No	Land Use	Improve Destination Accessibility	0.00		
No	Land Use	Increase Transit Accessibility	0.25		
No	Land Use	Integrate Below Market Rate Housing	0.00		
	Land Use	Land Use SubTotal	0.00		
No	Neighborhood Enhancements	Improve Pedestrian Network			
No	Neighborhood Enhancements	Provide Traffic Calming Measures			
No	Neighborhood Enhancements	Implement NEV Network	0.00		
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00		
No	Parking Policy Pricing	Limit Parking Supply	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00		
No	Transit Improvements	Provide BRT System	0.00		
No	Transit Improvements	Expand Transit Network	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		
	Transit Improvements	Transit Improvements Subtotal	0.00		
		Land Use and Site Enhancement Subtotal	0.00		
No	Commute	Implement Trip Reduction Program			
No	Commute	Transit Subsidy			
No	Commute	Implement Employee Parking "Cash Out"			
No	Commute	Workplace Parking Charge			
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00

No	Commute	Provide Ride Sharing Program		
	Commute	Commute Subtotal	0.00	
No	School Trip	Implement School Bus Program	0.00	
		Total VMT Reduction	0.00	

### Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	250.00
No	Use Low VOC Paint (Non-residential Exterior)	250.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

### Energy Mitigation Measures

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

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00

DishWasher	15.00
Fan	50.00
Refrigerator	15.00

**Water Mitigation Measures**

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

**Solid Waste Mitigation**

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