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MEMORANDUM

To:	Jud Dustrisac, *Westar Associates*
From:	Ian McIntire / Jennifer Reed, *Dudek*
Subject:	Westar Final Phase Project Air Quality and Greenhouse Gas Emissions Assessment
Date:	July 1, 2016
cc:	Troy A. White, *Dudek*
Attachments:	A CalEEMod Output – Original 2012 EIR Project Construction and Operational Emissions B CalEEMod Output – Amended Project Construction and Operational Emissions

Dudek is pleased to submit this focused air quality and greenhouse gas (GHG) emissions assessment to assist Westar with environmental planning requirements for the proposed Westar Final Phase Project ("Final Phase") located in the City of Goleta (City), California. The 15.43-acre Final Phase is a portion of the overall 23.56-acre project development (collectively, the "Amended Project"). This memorandum estimates criteria air pollutant and GHG emissions from construction and operation of the proposed Amended Project and the originally proposed project evaluated in the *Westar Mixed-Use Village Final Environmental Impact Report*, prepared by Envicom Corporation in July 2012 (hereinafter referred to as the "2012 EIR Project" or "Original Project"). This assessment also compares the estimated Amended Project emissions to the Santa Barbara County Air Pollution Control District (SBCAPCD) emissions-based thresholds and the conclusions provided in the 2012 EIR. The analysis contained herein is based on updated project statistics provided by the applicant and updated traffic information provided in the Associated Transportation Engineers' (ATE) *Trip Generation Comparison and Evaluation of Proposed Soil Export* memorandum (ATE 2016).

The contents and organization of this memorandum are as follows: 1) project description and background; 2) general analysis and methodology, including construction and operation assumptions; 3) air quality assessment and 4) GHG emissions assessment; 5) conclusions; and 6) references cited.

1 PROJECT DESCRIPTION AND BACKGROUND

The proposed Final Phase is an amendment of the Westar Mixed-Use Village project located at 7000 Hollister Avenue within the City. The applicant is seeking to develop 33 apartment units and an approximately 0.42-acre common open space/park area on a 1.84-acre portion of the 23.56-acre Westar Hollister Village project site instead of the previously proposed mixed-use development, which included 5 live-work condominium units (9,426 square feet), 12,687 square feet dedicated for retail (total building development area of 22,113 square feet), and a 0.42-acre common open space/park area . The proposed Final Phase's 33 apartment units would be provided within two apartment buildings totaling 44,255 square feet.

Pursuant to the assessment contained in the *Trip Generation Comparison and Evaluation of Proposed Soil Export* memorandum (ATE 2016), the proposed Final Phase would generate less traffic than the Original Project associated with the reduction in the dedicated to retail square footage as compared with the previously analyzed project in the 2012 EIR.

2 GENERAL ANALYSIS AND METHODOLOGY

The project site is located within the South Central Coast Air Basin, which includes Ventura County, Santa Barbara County, and San Luis Obispo County, and is within the jurisdictional boundaries of the SBCAPCD. Project-generated criteria air pollutant and GHG emissions are estimated using the most recent version of the California Emissions Estimator Model (CalEEMod Version 2013.2.2), consistent with the SBCAPCD recommendations for project-level review because CalEEMod uses current emission factors and updated default values and has the ability to quantify indirect GHG emissions and GHG mitigation (SBCAPCD 2015a).

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants that are evaluated include reactive organic compounds (ROCs; also referred to as volatile organic compounds (VOCs) and reactive organic gases (ROGs)), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (PM_{10}), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size ($PM_{2.5}$). ROCs and NO_x are important because they are precursors to ozone (O_3). Criteria air pollutant emissions associated with construction of the Amended Project and the 2012 EIR Project were estimated for the following emission sources: operation of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. Project operational emission sources evaluated include mobile sources (vehicle trips), area sources (consumer product use,

architectural coatings, and landscape maintenance equipment),[1] and energy sources (natural gas use).

GHGs are gases that absorb infrared radiation in the atmosphere. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect. Principal GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), O_3, and water vapor. If the atmospheric concentrations of GHGs rise, the average temperature of the lower atmosphere will gradually increase. Globally, climate change has the potential to impact numerous environmental resources though uncertain impacts related to future air temperatures and precipitation patterns. Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. Climate change is already affecting California: average temperatures have increased, leading to more extreme hot days and fewer cold nights; shifts in the water cycle have been observed, with less winter precipitation falling as snow, and both snowmelt and rainwater running off earlier in the year; sea levels have risen; and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (CAT 2010).

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP), which varies among GHGs. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of pounds or tons of CO_2 equivalent (CO_2E).[2]

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs (SBCAPCD 2015a). This approach is consistent with the *Final Statement of Reasons for Regulatory Action* for amendments to the California Environmental Quality Act (CEQA) Guidelines, which confirms that an environmental impact report or other environmental

[1] The proposed residential dwelling units will not include fireplaces or wood stoves that would generate hearth (area source) emissions.

[2] The CO_2E for a gas is derived by multiplying the mass of the gas by the associated GWP, such that metric tons of CO_2E = (metric tons of a GHG) × (GWP of the GHG). CalEEMod assumes that the GWP for CH_4 is 21, which means that emissions of 1 metric ton of CH_4 are equivalent to emissions of 21 metric tons of CO_2, and the GWP for N_2O is 310, based on the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report. Although the IPCC has released subsequent Assessment Reports with updated GWPs, California Air Resources Board reporting and other statewide documents utilize the GWP in the IPCC Second Assessment Report. As such, it is appropriate to use the hardwired GWP values in CalEEMod from the IPCC Second Assessment Report.

document must analyze the incremental contribution of a project to GHG levels and determine whether those emissions are cumulatively considerable (CNRA 2009).

GHG emissions associated with construction of the Amended Project and the 2012 EIR Project were estimated for the following emission sources: operation of off-road construction equipment, on-road hauling and vendor trucks, and worker vehicles. GHG emission sources associated with operation of the Final Phase project and the 2012 EIR project were evaluated for energy use (natural gas and generation of electricity consumed by the project); project-generated vehicular traffic; solid waste generation; and generation of electricity associated with water supply and wastewater treatment.

2.1 Construction Assumptions

Construction emissions were modeled for both the original 2012 EIR Project and the Amended Project. The Original Project evaluated in the 2012 EIR included development of 90,054 square feet of retail, 274 apartments, and 5 live/work condominiums. The Amended Project includes development of 75,900 square feet of retail and 299 apartments. Emissions for the Original Project and the Amended Project were estimated to determine the difference in construction emissions. Estimated emissions were based on construction information provided by the project applicant (Westar), the previous analysis contained in the 2012 EIR; CalEEMod default values were utilized when project –specific information was not known and/or immediately available. CalEEMod was used to generate construction phasing for both scenarios. The analysis contained herein is based on the following assumptions for the Original and the Amended Projects (duration of phases is approximate):

Estimated Construction Phasing for Original 2012 EIR Project

- Demolition – 4 weeks
- Grading/Soil Export/Hauling – 7 weeks
- Building Construction – 74 weeks
- Paving – 4 weeks
- Application of Architectural Coatings – 4 weeks

Estimated Construction Phasing for Amended Project

- Demolition – 4 weeks
- Grading/Soil Export (300 cubic yards export) – 7 weeks

- Grading/Soil Export (7,500 cubic yards export)– 2.4 weeks (12 days)
- Building Construction – 74 weeks
- Paving – 4 weeks
- Application of Architectural Coatings – 4 weeks

The variety of construction equipment used for estimating the construction emissions for the 2012 EIR Project and the Amended Project were based on CalEEMod defaults and is shown in Table 1, Construction Scenario Assumptions. The Original Project's analysis in the 2012 EIR included a different construction equipment fleet based on the now outdated modeling program, URBEMIS version 2007 9.2.4. To more accurately present the difference in construction emissions for both the Original and Amended Projects, CalEEMod version 2013.2.2 was used for the analysis of both scenarios, which includes updated calculation equations and emission factors. For this analysis, it was assumed that heavy construction equipment would operate 5 days a week (22 days per month) during construction. Worker vehicle trips and vendor truck trips were also based on CalEEMod default values.

Haul truck assumptions for the Final Phase portion of the Amended Project were based on information provided by the applicant and the *Trip Generation Comparison and Evaluation of Proposed Soil Export* memorandum (ATE 2016). As a result of refinements made on the project site in order to lower grades/ building heights, an additional 7,500 cubic yards of soil is required to be exported off-site. As provided by the applicant, approximately 2-3 weeks would be required to haul the additional soil (12 days was utilized for purpose of this analysis).

The 2012 EIR project assumed export of 300 cubic yards of excess cut material, the Amended Project assumes export of 7,800 cubic yards (300 cubic yards + 7,500 cubic yards) of excess cut material. Haul truck trips for all export activities were estimated based on the estimated export volume and the haul truck capacity provided by ATE (ATE 2016) (i.e., 9 cubic yards per truck). The 300 cubic yards of export was estimated to require 68 one-way haul truck trips (34 round truck trips,); the additional 7,500 cubic yards of export was estimated to require an additional 1,668 one-way haul truck trips (834 round truck trips).

Table 1
Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	*Average Daily Vendor Truck Trips*	*Total Haul Truck Trips*	*Type*	*Quantity*	*Usage Hours*
Original 2012 EIR Project						
Demolition	16	0	44	Concrete/Industrial Saws	1	8
				Excavators	3	8
				Rubber Tired Dozers	2	8
Grading/Soil Export (300 cubic yards export)	20	0	68	Excavators	2	8
				Graders	1	8
				Rubber Tired Dozers	1	8
				Scrapers	2	8
				Tractors/Loaders/Backhoes	2	8
Building Construction	242	50	0	Cranes	1	7
				Forklifts	3	8
				Generator Sets	1	8
				Tractors/Loaders/Backhoes	3	7
				Welders	1	8
Paving	16	0	0	Pavers	2	8
				Paving Equipment	2	8
				Rollers	2	8
Architectural Coating	48	0	0	Air Compressors	1	6
Amended Project						
Demolition	16	0	44	Concrete/Industrial Saws	1	8
				Excavators	3	8
				Rubber Tired Dozers	2	8
Grading/Soil Export (300 cubic yards export)	20	0	68	Excavators	2	8
				Graders	1	8
				Rubber Tired Dozers	1	8
				Scrapers	2	8
				Tractors/Loaders/Backhoes	2	8
Grading/Soil Export (7,500	20	0	1,668	Excavators	2	8
				Graders	1	8

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Construction Scenario Assumptions

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cubic yards export)				Rubber Tired Dozers	1	8
				Scrapers	2	8
				Tractors/Loaders/Backhoes	2	8
Building Construction	248	48	0	Cranes	1	7
				Forklifts	3	8
				Generator Sets	1	8
				Tractors/Loaders/Backhoes	3	7
				Welders	1	8
Paving	16	0	0	Pavers	2	8
				Paving Equipment	2	8
				Rollers	2	8
Architectural Coating	50	0	0	Air Compressors	1	6

Notes: See Attachments A and B for details.

2.2 Operation Assumptions

As previously described in Section 1.0, Project Description and Background, the Final Phase would include development of 33 apartment units instead of the 12,687 square feet retail space and 5 live-work condominium units previously analyzed in the 2012 EIR for the central-eastern portion of the project site. Table 2, Operational Scenario Assumptions, presents a summary of the original 2012 EIR project and the Amended Project's proposed land uses, as well as an identification of the net change between the Amended Project and the 2012 EIR Project .

Table 2
Operational Scenario Assumptions

Land Use Type	Units	Original 2012 EIR Project	Amended Project	Net Change *(Final Phase Project Increase)*
Retail	Square feet	90,054	75,900	(12,804)
Condominiums	Dwelling units	5	0	(5)
Apartments	Dwelling units	274	299	25

Source: Westar 2016.

As shown in Table 2, the Amended Project would include a reduction of 12,804 square feet of retail, a reduction in 5 condominiums, and an increase in 25 apartments compared to the 2012 EIR project.

Consistent with the 2012 EIR analysis, existing land use trips were subtracted from the total trips generated by the Original Project and the Amended Project. Non-mobile sources of operational emissions (i.e., area, energy, water/wastewater, and solid waste) generated by the existing land use (Television Studio/ATM), however, were not estimated or subtracted from the project emissions. As such, the net change in emissions between the existing land use and the project—for both the 2012 EIR project and Amended Project scenarios—are slightly overestimated because the total baseline emissions were not accounted for in the emissions analysis.

Project-generated trip estimates used in this analysis were calculated based on the land use and trip generation rates identified in the *Trip Generation Comparison and Evaluation of Proposed Soil Export* memorandum (ATE 2016), which provided trip rates for the Amended Project and the 2012 EIR Project. The 2012 EIR air quality and GHG emissions modeling used trip generation factors for mid-rise apartments, condominium/townhouse, and regional shopping center based on the project's *Traffic, Circulation, and Parking Study*, which was prepared for the original project by ATE in September 2010. The trip generation rates used in the 2012 EIR are the same as the rates used in the *Trip Generation Comparison and Evaluation of Proposed Soil Export* memorandum (ATE 2016).

3 AIR QUALITY ASSESSMENT

3.1 Thresholds of Significance

The purpose of this focused memorandum is to compare Amended Project-generated construction and operational emissions to the original 2012 EIR Project-generated emissions as they relate to the 2012 EIR original impact conclusions. For ease of reference, thresholds related to the potential for a project to generate criteria air pollutant emissions that would potentially

result in a significant impact are summarized below. The relevant thresholds from the State of California's CEQA guidelines, the SBCAPCD *Scope and Content of Air Quality Sections in Environmental Documents*, and the City's *Environmental Thresholds and Guidelines Manual* are, also, presented below.

The State of California guidelines to address the significance of air quality impacts based on Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.), states that a project would have a significant environmental impact if it would:

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation

As provided in the SBCAPCD's *Scope and Content of Air Quality Sections in Environmental Documents* (SBCAPCD 2015a), a project would have a significant air quality effect on the environment if operation of the project would:

- Emit (from all project sources, both stationary and mobile) more than the daily trigger for offsets or Air Quality Impact Analysis set in the SBCAPCD New Source Review Rule,[3] for any pollutant (i.e., 240 pounds per day for ROC or NO_x; and 80 pounds per day for PM_{10})
- Emit 25 pounds per day or more of NO_x or ROC from motor vehicle trips only
- Cause or contribute to a violation of any California or National Ambient Air Quality Standard (except O_3)

The SBCAPCD does not currently have quantitative thresholds of significance in place for short-term construction emissions; however, the SBCAPCD uses 25 tons per year for any pollutant[4] as a guideline for determining the significance of construction impacts (Barham, pers. comm. 2015).

[3] The SBCAPCD New Source Review Rule as it existed at the time the SBCAPCD Environmental Review Guidelines were adopted in October 1995 and were subsequently revised in April 2015 (SBCAPCD 2015b).

[4] The 25 tons per year guideline is based on the SBCAPCD rule for stationary source construction emissions offsets (Rule 202 D.16), which considers any pollutant (i.e., all pollutants for which an AAQS has been established by the U.S. Environmental Protection Agency or the California Air Resources Board and the precursors to such pollutants), except CO. The SBCAPCD staff recommends that for CEQA assessments for typical land use projects that all criteria air pollutants estimated, which typically include ROC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$, be compared to the guideline of 25 tons per year (Barham, pers. comm. 2015). The approach utilized in this air quality assessment is consistent with the direction provided by the SBCAPCD staff.

In addition, pursuant to the City's *Environmental Thresholds and Guidelines Manual*, a significant adverse air quality impact may occur when a project, individually or cumulatively, triggers either of the following (City of Goleta 2002):

- Interferes with progress toward the attainment of the O_3 standard by releasing emissions which equal or exceed the established long-term quantitative thresholds for NO_x and ROC
- Equals or exceeds the state or federal ambient air quality standards for any criteria pollutant (as determined by modeling)

The City does not specify quantitative thresholds of significance for short-term construction emissions because construction emissions from land development projects are assumed to have already been accounted for in the SBCAPCD's Clean Air Plan (City of Goleta 2006). However, because the region does not meet the state standards for O_3 and PM_{10}, the City requires implementation of standard emission and dust control techniques for all construction, as outlined in General Plan (GP)/Coastal Land Use Plan (CLUP) Policy CE 12.3 and listed as mitigation measures in the City's GP/CLUP Final Environmental Impact Report (FEIR) Air Quality section (City of Goleta 2006), to ensure that these emissions remain less than significant.

3.2 Impact Analysis

3.2.1 Construction Criteria Air Pollutant Emissions Analysis

Construction of either the Amended Project or the 2012 EIR Project would result in a temporary addition of pollutants to the local airshed. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

Criteria air pollutant emissions associated with construction activity were quantified using CalEEMod. Default values provided by the program were used where detailed project information was not available. A detailed depiction of the construction schedule—including information regarding phasing, equipment used during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Section 2.1, Construction Assumptions, of this memorandum.

Implementation of the project is anticipated to generate construction-related criteria air pollutant emissions from soil disturbance (fugitive dust), equipment and vehicle exhaust emissions (combustion pollutants), and architectural coatings. Entrained dust results from the exposure of

earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. To account for dust-control measures in the calculations, it was assumed that the project site would be watered at least three times daily, resulting in an approximately 61% reduction which would represent compliance with SBCAPCD standard dust control measures. Because the County is currently in nonattainment for the state PM_{10} standard, standard dust control measures are required for all discretionary construction activities (regardless of the significance of the fugitive dust impacts), based on policies in the 1979 Air Quality Attainment Plan (SBCAPCD 2015a). Exhaust from internal combustion engines used by construction equipment, haul trucks (dump trucks), vendor trucks (delivery trucks), and worker vehicles would result in emissions of ROC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$. The application of architectural coatings, such as exterior/interior paint and other finishes, would also produce ROC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SBCAPCD Rule 323 (Architectural Coatings).

Table 3, Estimated Annual Construction Emissions for the Original 2012 EIR Project and Amended Final Phase Project, shows the estimated tons per year of construction emissions associated with the buildout of the Original and the Amended Projects. To determine the estimated emissions associated with buildout of the Final Phase, both the Original and the Amended Projects were modeled using the latest version of the program CalEEMod, as the analysis from the 2012 EIR relied upon the now outdated program URBEMIS. Modeling both the Original and the Amended Projects with CalEEMod allowed for a proper comparison of the Amended Project's construction emissions with those of the Original Project. For informational purposes, emissions identified in the original 2012 EIR are provided in Table 3 as well.

Table 3
Estimated Annual Construction Emissions for the Original 2012 EIR Project and Amended Project

	ROC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	tons per year					
2012 EIR URBEMIS Version 2007 9.2.4 Estimated Emissions						
Original 2012 EIR Project	7.56	8.05	11.47	0.00	8.20	2.07
CalEEMod Version 2013.2.2 Estimated Emissions						
Original 2012 EIR Project	4.15	8.69	9.51	0.01	1.02	0.62
Amended Project	4.30	9.65	10.20	0.01	1.10	0.66
Net Annual Project Emissions *(Final Phase Project Increase)*	**0.15**	**0.96**	**0.69**	**0.00**	**0.08**	**0.04**

Notes: See Attachments A and B for detailed results.
These estimates reflect compliance with SBCAPCD standard dust control measures, watering three daily to reduce fugitive on-site fugitive dust emissions by 61%.

ROC = reactive organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.

As shown in Table 3, the annual construction emissions estimated in the 2012 EIR for the Original Project using URBEMIS would not exceed the SBCAPCD threshold guidelines of 25 tons per year for any pollutant. Buildout of the Amended Project would result in a slight increase in estimated annual construction emissions for all criteria air pollutants compared to the 2012 EIR project using CalEEMod. While the Amended Project would result in a slight increase in construction emissions, this minor increase in construction emissions would not represent a substantial change in project-generated construction emissions and would not alter the impact significance conclusions of the previous 2012 EIR.

3.2.2 Operational Criteria Air Pollutant Emissions Analysis

Following the completion of construction activities, the project would generate ROC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ emissions from mobile sources, including vehicular traffic generated by residents and visitors; area sources, including the use of consumer products, architectural coatings for repainting, and landscape maintenance equipment; and energy sources, including combustion of fuels used for space and water heating and cooking appliances. Emissions associated with project-generated daily traffic were estimated based on the trip generation estimates provided by ATE (ATE 2016) and information previously evaluated in the 2012 EIR (see Section 2.2, Operation Assumptions, for details). CalEEMod default data including emission factors and trip distances were conservatively used for the model inputs.

Project-related traffic was assumed to consist of a mixture of vehicles in accordance with the model outputs for traffic. Emission factors representing the vehicle mix and emissions for the year 2017 (i.e., first full year of project operation), when the Original and the Amended Projects would be in its first year of operation, were used to estimate emissions. In addition to estimating mobile source emissions, CalEEMod was also used to estimate emissions from project area and energy sources. Area sources include gasoline-powered landscape maintenance equipment, consumer products, and architectural coatings for building maintenance. Energy sources include space and water heating, which are included in the total estimated area source emissions for the air quality analysis. As previously identified, consistent with the 2012 EIR, existing land use trips were subtracted from the total trips generated by the original and the amended project; however, operational non-mobile source emissions (including area and energy sources) generated by the existing land use (Television Studio/ATM) were not estimated or subtracted from the project emissions. Accordingly, the net change in emissions between the existing land use and the project—for both the 2012 EIR Project and Amended Project scenarios—are slightly overestimated because the total baseline emissions were not accounted for in the original emissions analysis.

As with construction emissions, CalEEMod version 2013.2.2 was used to estimate the net operational emissions associated with the Original and the Amended Projects. The 2012 EIR results using CalEEMod version 2011.1.1 are presented for informational purposes. The analysis contained herein uses emissions estimated using the current version of CalEEMod for both the Original and the Amended Projects to determine the operational emissions that would result with the change from mixed-use to residential uses at lots 4, 5, and 6. Table 4, Estimated Maximum Daily Operational Emissions for Original 2012 EIR Project and Amended Project, presents the maximum daily summer or winter emissions associated with operation of the Original and the Amended Project. Details of the emission calculations are provided in Attachments A and B.

Table 4
Estimated Maximum Daily Operational Emissions for the Original 2012 EIR Project and Amended Project

	ROC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	pounds per day					
Original 2012 EIR Project (CalEEMod Version 2011.1.1 Estimated Emissions)						
Area Source Emissions[a]	11.82	1.20	24.91	0.01	0.19	0.18
Vehicular (Mobile) Source Emissions	28.31	47.48	271.33	0.21	28.25	2.14
Combined Total Emissions	**40.11**	**48.57**	**296.19**	**0.21**	**28.25**	**2.14**
Vehicle Source Emissions Threshold	*25*	*25*			N/A	
Threshold Exceeded?	**Yes**	**Yes**			N/A	
Area + Vehicle Source Emissions Threshold	*240*	*240*	—	—	*80*	—
Area + Vehicle Source Emissions Threshold Exceeded?	**No**	**No**			**No**	
Original 2012 EIR Project (CalEEMod 2013.2.2 Estimated Emissions)						
Area Source Emissions[a]	13.07	0.81	23.51	0.00	0.17	0.17
Vehicular (Mobile) Source Emissions	18.22	32.73	168.74	0.23	17.67	4.95
Combined Total Emissions	**31.29**	**33.54**	**192.25**	**0.24**	**17.84**	**5.12**
Vehicle Source Emissions Threshold	*25*	*25*			N/A	
Threshold Exceeded?	**No**	**Yes**			N/A	
Area + Vehicle Source Emissions Threshold	*240*	*240*	—	—	*80*	—
Area + Vehicle Source Emissions Threshold Exceeded?	**No**	**No**			**No**	
Amended Project (CalEEMod Version 2013.2.2 Estimated Emissions)						
Area Source Emissions[a]	13.39	0.98	25.23	0.00	0.20	0.20
Vehicular (Mobile) Source Emissions	17.13	31.25	160.09	0.22	17.00	4.76
Combined Total Emissions	**30.52**	**32.23**	**185.32**	**0.22**	**17.20**	**4.96**
Vehicle Source Emissions Threshold	*25*	*25*			N/A	
Threshold Exceeded?	**No**	**Yes**			N/A	
Area + Vehicle Source Emissions Threshold	*240*	*240*	—	—	*80*	—
Area + Vehicle Source Emissions Threshold Exceeded?	**No**	**No**			**No**	
Net Project Emissions (CalEEMod Version 2013.2.2 Estimated Emissions)						
Original 2012 EIR Project	31.29	33.54	192.25	0.24	17.84	5.12
Amended Final Phase Project	30.52	32.23	185.32	0.22	17.20	4.96
Net Change in Total Emissions *(Final Phase Project Increase)*	**(0.77)**	**(1.31)**	**(6.93)**	**(0.02)**	**(0.64)**	**(0.16)**

Notes: See Attachments A and B for detailed results.
Emissions presented are the maximum daily summer or winter emissions results from CalEEMod.

ROC = reactive organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter, lbs/day = pounds per day.
[a] Emissions associated with natural gas usage (energy source emissions) are included in the Area Source Emissions consistent with the SBCACPD includes heating and cooling (natural gas usage) in the for the air quality impact analysis (SBCAPCD 2015a).

As shown in Table 4, the previously evaluated project in the 2012 EIR was determined to exceed the SBCAPCD vehicle source thresholds for ozone precursor pollutants (ROC and NO_x) during operation of the proposed project, which would result in a significant impact with mitigation incorporated. The Amended Project would decrease the retail component of the project, which would reduce the vehicular traffic to the project site. As such, the decrease in the mixed-use component of the project would result in an associated decrease in ROC, NO_x, CO, and PM_{10} emissions. Even with a decrease in operational ROC and NO_x emissions, however, the Amended Project would still result in the exceedance of the SBCAPCD vehicle source emissions threshold for NO_x.

The Amended Project would result in an overall <u>decrease</u> in operational emissions for pollutants with adopted significance thresholds (i.e., ROC, NO_x, CO, and PM_{10}). Therefore, the Amended Project would not represent a substantial change in operational emissions than the original 2012 EIR Project and would not alter the impact conclusions of the previous 2012 EIR.

4 GREENHOUSE GAS EMISSIONS ASSESSMENT

4.1 Thresholds of Significance

4.1.1 CEQA Guidelines

With respect to GHG emissions, the CEQA Guidelines state in Section 15064.4(a) that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance based standards" (14 CCR 15000 et seq.). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment:

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). Similarly, the revisions to Appendix G, Environmental Checklist Form, which is often used as a basis for lead agencies' selection of significance thresholds, do not prescribe specific thresholds. Rather, the CEQA Guidelines establish two new CEQA thresholds related to GHGs, and these will therefore be used to discuss significance of project impacts:

- Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

Accordingly, the CEQA Guidelines do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (14 CCR 15000 et seq.).

4.1.2 Local Guidance

At this time, neither the SBCAPCD nor the City has adopted numerical thresholds of significance for GHG emissions that would apply to the proposed project. The SBCAPCD recently amended its Environmental Review Guidelines (SBCAPCD 2015b) to include GHG thresholds for stationary source land uses; however, the proposed project is not a stationary source and this guidance would not apply.[5] The SBCAPCD, however, recommends that all projects subject to CEQA review be considered in the context of GHG emissions and climate change impacts, and that CEQA documents should include a quantification of GHG emissions from all project sources, direct and indirect, as applicable (SBCAPCD 2015a). In addition, the SBCAPCD recommends that climate change impacts be mitigated to the extent reasonably possible, whether or not they are determined to be significant.

[5] The SBCAPCD defines stationary source projects as "equipment, processes and operations that require an SBCAPCD permit to operate" (SBCAPCD 2015b).

Pursuant to direction provided by City staff in the Planning and Environmental Review Department, the City is currently referring to the Bay Area Air Quality Management District's (BAAQMD) thresholds for GHG emissions as guidance for City project-level projects. In accordance with CEQA Guidelines Sections 15064.4(b)(2) and 15064.7(c), the City has consistently relied upon Santa Barbara County's *Support for Use of BAAQMD GHG Emissions Standards* (County of Santa Barbara 2010) as the recommended basis and threshold for establishing the GHG impacts of a project. The BAAQMD/County of Santa Barbara Interim Thresholds of Significance for operational GHG emissions for projects other than stationary sources is as follows, where any of these criteria can be used to evaluate a project's GHG emissions (BAAQMD 2010):

- 1,100 MT CO_2E per year;
- 4.6 MT CO_2E per service population per year (service population = residents + employees); or
- Compliance with a Qualified Climate Action Plan.

The per-service population guideline is intended to avoid penalizing large projects that incorporate GHG-reduction measures such that they may have high total annual GHG emissions, but would be relatively efficient, as compared to projects of similar scale. Consistent with the BAAQMD's *CEQA Air Quality Guidelines*, the construction emissions associated with the proposed project (e.g., those from off-road equipment, worker vehicles) will be estimated and reported; however, the GHG threshold applies only to the operational emissions (BAAQMD 2010). Although the BAAQMD guidance does not indicate that the short-term GHG emissions from the construction phase should be included in the emissions compared to the established threshold, it is common practice for GHG analyses performed for proposed projects in the City to amortize construction emissions over the life of the project, which is typically assumed to be 30 years, and add those emissions to the estimated annual operational emissions. However, for the purposes of this comparative analysis, construction emissions are evaluated separate from the operational emissions analysis.

The 2012 EIR used the BAAQMD efficiency metric threshold of 4.6 MT CO_2E per service population per year to determine the significance of potential project-generated GHG impacts under CEQA. As such, this analysis references the BAAQMD efficiency metric threshold of 4.6 MT CO_2E per service population per year; however, as the specific service population is not known for the Amended Project, this threshold is not directly applied to the estimate Final Phase project emissions on a per service population efficiency basis.

4.2 Impact Analysis

4.2.1 Construction Greenhouse Gas Emissions Analysis

As with the air quality assessment, full buildout of the original 2012 EIR Project and the Amended Project were evaluated to estimate the net change in GHG emissions associated with the change of the previous designated mixed-use land use to residential uses at lots 4, 5, and 6. While most of the proposed project construction has occurred, the construction analysis assumed buildout conditions to evaluate the change in GHG construction emissions associated with buildout of the Amended Project compared to buildout of the Original Project. Construction of either project would result in GHG emissions associated with use of off-road construction equipment, hauling trucks (dump trucks), vendor (material delivery) trucks, and worker vehicles. GHG emissions associated with temporary construction activity were quantified using the CalEEMod version 2013.2.2. A detailed depiction of the construction schedule—including information regarding phasing, equipment utilized during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Section 2.1, Construction Assumptions, of this memorandum. Emissions from on-site sources (i.e., off-road equipment) and off-site sources (i.e., hauling and vendor trucks and worker vehicles) are combined for the purposes of this analysis; a breakdown of emissions by source is provided in Attachments A and B.

Table 5, Estimated Annual Construction Greenhouse Gas Emissions for Original 2012 EIR and Amended Project, presents a comparison between the GHG emissions associated with the construction of the original and the amended project. As previously discussed, the 2012 EIR used URBEMIS to estimate construction emissions, which is now outdated. This analysis, therefore, uses CalEEMod to more accurately estimate the difference in construction GHG emissions generated from the original and the amended project.

Table 5
Estimated Annual Construction Greenhouse Gas Emissions for Original 2012 EIR and Amended Project

	CO_2	CH_4	N_2O	CO_2E
	metric tons per year			
2012 EIR URBEMIS Version 2007 9.2.4 Estimated Emissions				
Original 2012 EIR Project	—	—	—	1,364.47
CalEEMod Version 2013.2.2 Estimated Emissions				
Original 2012 EIR Project	1,100.33	0.18	0.00	1,104.19
Amended Project	1,237.44	0.20	0.00	1,241.55
Net Annual Project Emissions *(Final Phase Project Increase)*	**137.11**	**0.02**	**0.00**	**137.36**

Notes: See Attachments A and B for detailed results.
CO_2 – carbon dioxide, CH_4 – methane, N_2O – nitrous oxide, CO_2E – carbon dioxide equivalent

As shown in Table 5, the estimated GHG emissions generated during the construction of the Amended Project would be approximately 1,104 MT CO_2E. The Original Project previously proposed for the same location would have resulted in approximately 1,242 MT CO_2E. **The implementation of the Amended Project would, therefore, result in a slight increase of approximately 137 MT CO_2E in GHG emissions generated during construction. Based on the estimated GHG emissions presented in Table 5, implementation of the Amended Project would not represent a substantial change in constructions emissions and therefore, would not alter the impact conclusions of the previous 2012 EIR.**

4.2.2 Operational Greenhouse Gas Emissions Analysis

Operation of the 2012 EIR Project or the Amended Project would result in GHG emissions from area sources, energy use, mobile sources, solid waste disposal, and water supply and wastewater treatment. GHG emissions associated with vehicle travel to and from the project site were estimated using CalEEMod and were based on the trip generation estimates provided by ATE (ATE 2016) for the Original and Amended Projects, and information previously evaluated in the 2012 EIR for the Original Project (see Section 2.2, Operation Assumptions, for details). CalEEMod default values for mobile sources were used consistent with the assumptions used in the air quality impact analysis (Section 3.2.2, Operational Emissions Analysis).

CalEEMod was also used to estimate emissions from the project's area and indirect (i.e., not generated on, but associated with, the project site) sources, which include energy use (natural gas and generation of electricity consumed by the project); generation of electricity associated with water supply, treatment, and distribution and wastewater treatment; and solid waste disposal. Operation of gasoline-powered landscape maintenance equipment also produces GHG emissions, although minimal. The estimation of proposed non-mobile operational emissions was based on CalEEMod land use defaults and total area (i.e., square footage) of the proposed land use. Annual electricity emissions were estimated using the emissions factors for Southern California Edison, which would provide electricity for the project. Default electricity and natural gas usage factors in CalEEMod were used for proposed building operation. Default factors for water supply, wastewater treatment, and solid waste were also used to estimate GHG emissions.

The estimated operational project-generated GHG emissions from area sources (landscape maintenance), energy usage, motor vehicles, solid waste generation, water supply, and wastewater treatment for the Original Project compared with operational GHG emissions of the Amended Project for 2017 (i.e., first full year of project operation) are shown in Table 6, Estimated Annual Operational Greenhouse Gas Emissions for Original 2012 EIR Project and

Amended Project. The 2012 EIR used CalEEMod version 2011.1.1 to estimate project-generated emissions, which are presented in Table 6 for informational purposes. For the purpose of this analysis, the Original and the Amended Projects were modeled using the latest version of CalEEMod (version 2013.2.2) to estimate the net emissions that would result with the change from the previously proposed mixed-uses to additional residential uses. The latest version of CalEEMod incorporates updated mobile source emission factors and includes regulations such as Pavley and Low Carbon Fuel Standards. Additionally, the project is expected to exceed the current Title 24 standards by 25% which was applied in CalEEMod for both the Original and the Amended Projects.

Table 6
Estimated Annual Operational Greenhouse Gas Emissions for Original 2012 EIR Project and Amended Project

	CO_2	CH_4	N_2O	CO_2E
	metric tons per year			
Original 2012 EIR Project (CalEEMod Version 2011.1.1 Estimated Emissions)				
Area Source Emissions	3.42	0.00	0.00	3.51
Energy Source Emissions	771.68	0.03	0.01	776.48
Vehicle (Mobile) Source Emissions	3,596.51	0.31	0.00	3,602.98
Solid Waste Emissions	45.24	2.67	0.00	101.40
Water Supply and Wastewater Emissions	63.73	0.03	0.02	70.54
Total	**4,480.58**	**3.04**	**0.03**	**4,554.91**
Original 2012 EIR Project (CalEEMod 2013.2.2 Estimated Emissions)				
Area Source Emissions	3.39	0.00	0.00	3.46
Energy Source Emissions	694.68	0.03	0.01	697.64
Vehicle (Mobile) Source Emissions	3,255.79	0.16	0.00	3,259.23
Solid Waste Emissions	45.25	2.67	0.00	101.42
Water Supply and Wastewater Emissions	63.56	0.03	0.02	70.32
Total	**4,062.67**	**2.89**	**0.03**	**4,132.07**
Amended Project (CalEEMod Version 2013.2.2 Estimated Emissions)				
Area Source Emissions	3.63	0.00	0.00	3.70
Energy Source Emissions	669.35	0.03	0.01	672.23
Vehicle (Mobile) Source Emissions	3,127.04	0.16	0.00	3,130.33
Solid Waste Emissions	44.11	2.61	0.00	98.84
Water Supply and Wastewater Emissions	64.01	0.03	0.02	70.84
Total	**3,908.14**	**2.83**	**0.03**	**3,975.94**
Net Project Emissions (CalEEMod Version 2013.2.2 Estimated Emissions)				
Original 2012 EIR Project	4,062.67	2.89	0.03	4,132.07
Amended Project	3,908.14	2.83	0.03	3,975.94
Net Change in Total Emissions *(Final Phase Project Increase)*	**(154.53)**	**(0.06)**	**0.00**	**(156.13)**

Notes: See Attachments A and B for detailed results.
CO_2 – metric tons carbon dioxide, CH_4 – metric tons methane, N_2O – metric tons nitrous oxide, CO_2E – metric tons carbon dioxide equivalent

The Original Project evaluated in the 2012 EIR using CalEEMod version 2011.1.1 was estimated to generate 4,555 MT CO_2E and was determined to result in 3.9 MT CO_2E per service population per year (assuming a service population of 1,166 persons). Therefore, the Original Project was found to be below the threshold of 4.6 MT CO_2E per service population per year threshold in the 2012 EIR. As shown in Table 6, estimated annual project-generated GHG emissions for the Original Project in 2017 using CalEEMod version 2013.2.3 would be approximately 4,132 MT CO_2E per year. The Amended Project is estimated to generate approximately 3,976 MT CO_2E as a result of project operations. The Amended Project would, therefore, result in a decrease of GHG emissions when compared to the Original Project. While a revised service population has not been calculated for the Amended Project due to not having a specific number of employees and residents, it can be concluded that a decrease in operational GHG emissions coupled with an increase in service population (additional apartments) would further reduce the 3.9 MT CO_2E per service population per year.

The implementation of the Amended Project would result in a decrease in GHG operational emissions. The GHG analysis presented above would not represent a substantial change in operational emissions and therefore, would not alter the impact conclusions of the previous 2012 EIR.

5 CONCLUSIONS

Criteria Air Pollutant Emissions

Construction Emissions

Construction of the 33 apartment units (and related development) instead of the mixed-use previously proposed for lots 4, 5, and 6 would result in a slight increase in estimated annual construction emissions compared to the 2012 EIR project. The Original Project evaluated in the 2012 EIR using URBEMIS version 2007 9.2.4 concluded that the entire project would emit 7.56 tons per year of ROC and 8.05 tons per year of NO_x; which did not exceed the SBCAPCD threshold guidelines of 25 tons per year. Using CalEEMod version 2013.2.2, emissions generated by the 2012 EIR Project were estimated to total 4.15 tons per year of ROC and 8.69 tons per year of NO_x, while emissions generated by the Amended Project were estimated to total 4.30 tons per year of ROC and 9.65 tons per year of NO_x. Although the Amended Project would result in a slight increase of construction emissions associated with the change in land uses at lots 4, 5, and 6, this minor increase would not represent a substantial change in construction emissions, and therefore, would not alter conclusions of the previous 2012 EIR.

Operational Emissions

Operation of the 33 apartment units instead of the mixed-use previously proposed for lots 4, 5, and 6 would result in a slight decrease in estimated maximum daily operational emissions compared to the 2012 EIR Project. The Original Project evaluated in the 2012 EIR using CalEEMod version 2011.1.1 concluded that the entire project's mobile emissions would be 28.31 pounds per day of ROC and 47.48 pounds per day of $NO_{x;}$ which exceeded the SBCAPCD threshold for mobile emissions of 25 pounds per day for ROC and NO_x. Using CalEEMod version 2013.2.2, mobile emissions generated by the 2012 EIR Project were estimated to total 18.22 pounds per day of ROC and 32.73 pounds per day of NO_x, while emissions generated by the Amended Project were estimated to total 17.13 pounds per day of ROC and 31.25 pounds per day of NO_x.

Additionally, the 2012 EIR concluded that combined area and mobile source emissions would be 40.11 pounds per day of ROC, 48.57 pounds per day of NO_x, and 28.25 pounds per day of PM_{10},none of which exceeded the SBCAPCD thresholds of 240 pounds per day of ROC and NO_x or 80 pounds per day of PM_{10}. Using CalEEMod version 2013.2.2, area and mobile emissions generated by the 2012 EIR Project were estimated to total 31.29 pounds per day of ROC, 33.54 pounds per day of NO_x, and 17.84 pounds per day of PM_{10}. Combined area and mobile emissions generated by the Amended Project were estimated to total 30.52 pounds per day of ROC, 32.23 pounds per day of NO_x, and 17.20 pounds per day of PM_{10}. Although the Amended Project would result in a decrease of criteria air pollutant emissions (ROC, NO_x, and PM_{10}), like the analysis within the original 2012 EIR, the Amended Project would continue to exceed the SBCAPCD mobile source threshold for NO_x emissions. As the Amended Project would result in an overall decrease in operational emissions for which significance thresholds have been adopted, this would not represent a substantial change in operational emissions, and therefore, would not alter the impact conclusions of the previous 2012 EIR.

Greenhouse Gas Emissions

Construction Emissions

Construction of the 33 apartment units instead of the mixed-use previously proposed for lots 4, 5, and 6 would result in a slight increase in estimated annual construction GHG emissions compared to the 2012 EIR project. The Original Project evaluated in the 2012 EIR using URBEMIS version 2007 9.2.4 concluded that entire project would emit 1,364 MT CO_2E. Using CalEEMod version 2013.2.2, construction GHG emissions generated by the 2012 EIR Project was estimated the estimated to be 1,104 MT CO_2E, while the Amended Project would emit approximately 1,242 MT CO_2E. The construction of the Amended Project would, therefore,

result in a slight increase of approximately 137 MT CO_2E in GHG emissions generated during construction. The GHG analysis for the Amended Project would not represent a substantial change in constructions emissions, and therefore, would not alter the impact conclusions of the previous 2012 EIR.

Operational Emissions

Construction of the 33 apartment units instead of the mixed-use previously proposed for lots 4, 5, and 6 would result in a slight decrease in estimated annual operational GHG emissions compared to the 2012 EIR Project. The Original Project evaluated in the 2012 EIR using CalEEMod version 2011.1.1 concluded that entire project would emit 4,555 MT CO_2E. Using CalEEMod version 2013.2.2, operational GHG emissions generated by the 2012 EIR Project was estimated to be 4,132 MT CO_2E while Amended Project-generated operational GHG emissions was estimated to be approximately 3,976 MT CO_2E per year, which represents a decrease of GHG emissions compared with the Original Project's operational emissions. The 2012 EIR Project concluded that total combined project emissions of about 3.9 MT CO_2E per service population per year did not exceed the BAAQMD threshold of 4.6 MT CO_2E per service population per year threshold. Although a refined service population estimate has not been calculated, it can be assumed that a decrease in operational GHG emissions and an increase in residential units would not result in the exceedance of the BAAQMD 4.6 MT CO_2E per service population per year threshold.

The implementation of the Amended Project would result in a decrease in GHG operational emissions. The GHG analysis presented above would not represent a substantial change in operational emissions and therefore, would not alter the impact conclusions of the previous 2012 EIR.

6 REFERENCES

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ATTACHMENT A

CalEEMod Output –
Original 2012 EIR Project
Construction and Operational Emissions
Winter, Summer, and Annual Output

Westar - 2012 Original Project

Santa Barbara-South of Santa Ynez Range County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.60	Acre	0.60	26,136.00	0
Apartments Mid Rise	274.00	Dwelling Unit	13.09	395,201.00	745
Condo/Townhouse	5.00	Dwelling Unit	0.62	12,720.00	14
Regional Shopping Center	90.05	1000sqft	9.25	90,054.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Westar Final Phase. Santa Barbara County (South Central Coast Air Basin).

Land Use - Original project includes development of 5 condos, 274 apartment dwelling units, 90,054 square feet in retail, and 0.6 acre for parks on 23.56 acres.

Construction Phase - Default phasing assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Trips and VMT - Rounded trips to even amount. Assume 68 truck trips and a 30-miles per one-way trip for soil hauling.

Demolition - Demolition of 9,546 square feet of building material.

Grading - 300 cubic yards of soil exported.

Architectural Coating - Comply with SBCAPCD's Rule 323.

Vehicle Trips - Trip rates updated based on traffic analysis.

Consumer Products - Calculated consumer product emissions in separate spreadsheet.

Area Coating - Comply with SBCAPCD's Rule 323.

Construction Off-road Equipment Mitigation - Water exposed surface areas three times daily for a 61% reduction in fugitive dust emissions.

Energy Mitigation - Exceed Title 24 by 25%.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	58,095.00	46,595.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	174,285.00	135,081.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblAreaCoating	Area_Nonresidential_Exterior	58095	46595
tblAreaCoating	Area_Nonresidential_Interior	174285	135081
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	250
tblConstructionPhase	PhaseEndDate	3/18/2015	3/17/2015
tblConstructionPhase	PhaseStartDate	1/29/2015	1/28/2015
tblGrading	MaterialExported	0.00	300.00
tblLandUse	LandUseSquareFeet	274,000.00	395,201.00
tblLandUse	LandUseSquareFeet	5,000.00	12,720.00
tblLandUse	LandUseSquareFeet	90,050.00	90,054.00
tblLandUse	LotAcreage	7.21	13.09
tblLandUse	LotAcreage	0.31	0.62

tblLandUse	LotAcreage	2.07	9.25
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripNumber	43.00	44.00
tblTripsAndVMT	HaulingTripNumber	38.00	68.00
tblTripsAndVMT	VendorTripNumber	49.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	241.00	242.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblVehicleTrips	ST_TR	7.16	4.25
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	7.16	3.71
tblVehicleTrips	ST_TR	49.97	45.00
tblVehicleTrips	SU_TR	6.07	4.25
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	6.07	3.71
tblVehicleTrips	SU_TR	25.24	45.00
tblVehicleTrips	WD_TR	6.59	4.25
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	6.59	3.71
tblVehicleTrips	WD_TR	42.94	45.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.7396	5.6579	5.9289	7.6600e-003	0.4127	0.3191	0.7318	0.1321	0.2983	0.4304	0.0000	669.7311	669.7311	0.1185	0.0000	672.2200
2016	3.4091	3.0278	3.5840	5.1000e-003	0.2029	0.1805	0.3834	0.0542	0.1693	0.2235	0.0000	430.5963	430.5963	0.0657	0.0000	431.9751
Total	**4.1487**	**8.6857**	**9.5129**	**0.0128**	**0.6156**	**0.4995**	**1.1152**	**0.1864**	**0.4676**	**0.6539**	**0.0000**	**1,100.3274**	**1,100.3274**	**0.1842**	**0.0000**	**1,104.1951**

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	0.7396	5.6579	5.9289	7.6600e-003	0.3172	0.3191	0.6363	0.0933	0.2983	0.3916	0.0000	669.7307	669.7307	0.1185	0.0000	672.2195
2016	3.4091	3.0278	3.5840	5.1000e-003	0.2029	0.1805	0.3834	0.0542	0.1693	0.2235	0.0000	430.5960	430.5960	0.0657	0.0000	431.9748
Total	**4.1487**	**8.6857**	**9.5129**	**0.0128**	**0.5201**	**0.4995**	**1.0197**	**0.1476**	**0.4676**	**0.6151**	**0.0000**	**1,100.3267**	**1,100.3267**	**0.1842**	**0.0000**	**1,104.1943**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**15.51**	**0.00**	**8.57**	**20.83**	**0.00**	**5.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.4095	0.0244	2.0933	1.1000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	3.3856	3.3856	3.4000e-003	0.0000	3.4570
Energy	0.0142	0.1215	0.0554	7.7000e-004		9.7800e-003	9.7800e-003		9.7800e-003	9.7800e-003	0.0000	748.8470	748.8470	0.0307	8.3600e-003	752.0818
Mobile	3.0975	5.9362	28.7323	0.0425	3.0838	0.0633	3.1472	0.8259	0.0583	0.8841	0.0000	3,255.7924	3,255.7924	0.1639	0.0000	3,259.2348
Waste						0.0000	0.0000		0.0000	0.0000	45.2548	0.0000	45.2548	2.6745	0.0000	101.4189
Water						0.0000	0.0000		0.0000	0.0000	8.7913	54.7651	63.5564	0.0328	0.0196	70.3328
Total	**5.5211**	**6.0821**	**30.8810**	**0.0434**	**3.0838**	**0.0845**	**3.1683**	**0.8259**	**0.0794**	**0.9053**	**54.0461**	**4,062.7900**	**4,116.8361**	**2.9053**	**0.0280**	**4,186.5254**

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	2.4095	0.0244	2.0933	1.1000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	3.3856	3.3856	3.4000e-003	0.0000	3.4570
Energy	0.0114	0.0977	0.0449	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	694.6759	694.6759	0.0289	7.6000e-003	697.6390
Mobile	3.0975	5.9362	28.7323	0.0425	3.0838	0.0633	3.1472	0.8259	0.0583	0.8841	0.0000	3,255.7924	3,255.7924	0.1639	0.0000	3,259.2348
Waste						0.0000	0.0000		0.0000	0.0000	45.2548	0.0000	45.2548	2.6745	0.0000	101.4189
Water						0.0000	0.0000		0.0000	0.0000	8.7913	54.7651	63.5564	0.0326	0.0196	70.3188
Total	**5.5184**	**6.0583**	**30.8705**	**0.0432**	**3.0838**	**0.0826**	**3.1664**	**0.8259**	**0.0775**	**0.9034**	**54.0461**	**4,008.6188**	**4,062.6650**	**2.9033**	**0.0272**	**4,132.0685**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.05**	**0.39**	**0.03**	**0.35**	**0.00**	**2.27**	**0.06**	**0.00**	**2.42**	**0.21**	**0.00**	**1.33**	**1.32**	**0.07**	**2.82**	**1.30**

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	Grading	Grading	1/28/2015	3/17/2015	5	35	
3	Building Construction	Building Construction	3/18/2015	8/16/2016	5	370	
4	Paving	Paving	8/17/2016	9/13/2016	5	20	
5	Architectural Coating	Architectural Coating	9/14/2016	10/11/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0

Residential Indoor: 826,040; Residential Outdoor: 275,347; Non-Residential Indoor: 135,081; Non-Residential Outdoor: 46,595

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
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	16.00	0.00	44.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	68.00	12.30	4.60	30.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	242.00	50.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	0.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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					4.7700e-003	0.0000	4.7700e-003	7.2000e-004	0.0000	7.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0451	0.4836	0.3607	4.0000e-004		0.0245	0.0245		0.0229	0.0229	0.0000	37.4413	37.4413	0.0102	0.0000	37.6544
Total	**0.0451**	**0.4836**	**0.3607**	**4.0000e-004**	**4.7700e-003**	**0.0245**	**0.0293**	**7.2000e-004**	**0.0229**	**0.0236**	**0.0000**	**37.4413**	**37.4413**	**0.0102**	**0.0000**	**37.6544**

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	6.2000e-004	8.1200e-003	7.8800e-003	2.0000e-005	3.7000e-004	1.2000e-004	4.9000e-004	1.0000e-004	1.1000e-004	2.1000e-004	0.0000	1.4925	1.4925	1.0000e-005	0.0000	1.4928
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9000e-004	1.3300e-003	0.0114	2.0000e-005	1.4600e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2462	1.2462	8.0000e-005	0.0000	1.2480
Total	**1.4100e-003**	**9.4500e-003**	**0.0193**	**4.0000e-005**	**1.8300e-003**	**1.3000e-004**	**1.9700e-003**	**4.9000e-004**	**1.2000e-004**	**6.1000e-004**	**0.0000**	**2.7387**	**2.7387**	**9.0000e-005**	**0.0000**	**2.7408**

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					1.8600e-003	0.0000	1.8600e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0451	0.4836	0.3607	4.0000e-004		0.0245	0.0245		0.0229	0.0229	0.0000	37.4412	37.4412	0.0102	0.0000	37.6544
Total	**0.0451**	**0.4836**	**0.3607**	**4.0000e-004**	**1.8600e-003**	**0.0245**	**0.0264**	**2.8000e-004**	**0.0229**	**0.0231**	**0.0000**	**37.4412**	**37.4412**	**0.0102**	**0.0000**	**37.6544**

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	6.2000e-004	8.1200e-003	7.8800e-003	2.0000e-005	3.7000e-004	1.2000e-004	4.9000e-004	1.0000e-004	1.1000e-004	2.1000e-004	0.0000	1.4925	1.4925	1.0000e-005	0.0000	1.4928
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9000e-004	1.3300e-003	0.0114	2.0000e-005	1.4600e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2462	1.2462	8.0000e-005	0.0000	1.2480
Total	**1.4100e-003**	**9.4500e-003**	**0.0193**	**4.0000e-005**	**1.8300e-003**	**1.3000e-004**	**1.9700e-003**	**4.9000e-004**	**1.2000e-004**	**6.1000e-004**	**0.0000**	**2.7387**	**2.7387**	**9.0000e-005**	**0.0000**	**2.7408**

3.3 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					0.1518	0.0000	0.1518	0.0629	0.0000	0.0629	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1186	1.3833	0.8897	1.0800e-003		0.0665	0.0665		0.0612	0.0612	0.0000	102.9739	102.9739	0.0307	0.0000	103.6195
Total	**0.1186**	**1.3833**	**0.8897**	**1.0800e-003**	**0.1518**	**0.0665**	**0.2184**	**0.0629**	**0.0612**	**0.1242**	**0.0000**	**102.9739**	**102.9739**	**0.0307**	**0.0000**	**103.6195**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2000e-003	0.0184	0.0144	4.0000e-005	8.6000e-004	2.7000e-004	1.1400e-003	2.4000e-004	2.5000e-004	4.9000e-004	0.0000	3.4325	3.4325	3.0000e-005	0.0000	3.4331
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7400e-003	2.9100e-003	0.0250	3.0000e-005	3.2000e-003	3.0000e-005	3.2300e-003	8.5000e-004	2.0000e-005	8.8000e-004	0.0000	2.7261	2.7261	1.9000e-004	0.0000	2.7300
Total	**2.9400e-003**	**0.0213**	**0.0395**	**7.0000e-005**	**4.0600e-003**	**3.0000e-004**	**4.3700e-003**	**1.0900e-003**	**2.7000e-004**	**1.3700e-003**	**0.0000**	**6.1586**	**6.1586**	**2.2000e-004**	**0.0000**	**6.1631**

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					0.0592	0.0000	0.0592	0.0246	0.0000	0.0246	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1186	1.3833	0.8897	1.0800e-003		0.0665	0.0665		0.0612	0.0612	0.0000	102.9737	102.9737	0.0307	0.0000	103.6193
Total	**0.1186**	**1.3833**	**0.8897**	**1.0800e-003**	**0.0592**	**0.0665**	**0.1257**	**0.0246**	**0.0612**	**0.0858**	**0.0000**	**102.9737**	**102.9737**	**0.0307**	**0.0000**	**103.6193**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2000e-003	0.0184	0.0144	4.0000e-005	8.6000e-004	2.7000e-004	1.1400e-003	2.4000e-004	2.5000e-004	4.9000e-004	0.0000	3.4325	3.4325	3.0000e-005	0.0000	3.4331
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7400e-003	2.9100e-003	0.0250	3.0000e-005	3.2000e-003	3.0000e-005	3.2300e-003	8.5000e-004	2.0000e-005	8.8000e-004	0.0000	2.7261	2.7261	1.9000e-004	0.0000	2.7300
Total	**2.9400e-003**	**0.0213**	**0.0395**	**7.0000e-005**	**4.0600e-003**	**3.0000e-004**	**4.3700e-003**	**1.0900e-003**	**2.7000e-004**	**1.3700e-003**	**0.0000**	**6.1586**	**6.1586**	**2.2000e-004**	**0.0000**	**6.1631**

3.4 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	0.3787	3.1081	1.9401	2.7800e-003		0.2191	0.2191		0.2060	0.2060	0.0000	252.5341	252.5341	0.0634	0.0000	253.8647
Total	**0.3787**	**3.1081**	**1.9401**	**2.7800e-003**		**0.2191**	**0.2191**		**0.2060**	**0.2060**	**0.0000**	**252.5341**	**252.5341**	**0.0634**	**0.0000**	**253.8647**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0687	0.4442	0.8887	8.0000e-004	0.0211	6.5800e-003	0.0277	6.0200e-003	6.0500e-003	0.0121	0.0000	72.7952	72.7952	7.0000e-004	0.0000	72.8100
Worker	0.1242	0.2079	1.7909	2.5000e-003	0.2291	1.9300e-003	0.2311	0.0609	1.7400e-003	0.0626	0.0000	195.0893	195.0893	0.0133	0.0000	195.3676
Total	**0.1929**	**0.6521**	**2.6796**	**3.3000e-003**	**0.2503**	**8.5100e-003**	**0.2588**	**0.0669**	**7.7900e-003**	**0.0747**	**0.0000**	**267.8845**	**267.8845**	**0.0140**	**0.0000**	**268.1776**

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	0.3787	3.1081	1.9401	2.7800e-003		0.2191	0.2191		0.2060	0.2060	0.0000	252.5338	252.5338	0.0634	0.0000	253.8644
Total	**0.3787**	**3.1081**	**1.9401**	**2.7800e-003**		**0.2191**	**0.2191**		**0.2060**	**0.2060**	**0.0000**	**252.5338**	**252.5338**	**0.0634**	**0.0000**	**253.8644**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0687	0.4442	0.8887	8.0000e-004	0.0211	6.5800e-003	0.0277	6.0200e-003	6.0500e-003	0.0121	0.0000	72.7952	72.7952	7.0000e-004	0.0000	72.8100
Worker	0.1242	0.2079	1.7909	2.5000e-003	0.2291	1.9300e-003	0.2311	0.0609	1.7400e-003	0.0626	0.0000	195.0893	195.0893	0.0133	0.0000	195.3676
Total	**0.1929**	**0.6521**	**2.6796**	**3.3000e-003**	**0.2503**	**8.5100e-003**	**0.2588**	**0.0669**	**7.7900e-003**	**0.0747**	**0.0000**	**267.8845**	**267.8845**	**0.0140**	**0.0000**	**268.1776**

3.4 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	0.2776	2.3233	1.5083	2.1900e-003		0.1603	0.1603		0.1507	0.1507	0.0000	197.3552	197.3552	0.0490	0.0000	198.3831
Total	**0.2776**	**2.3233**	**1.5083**	**2.1900e-003**		**0.1603**	**0.1603**		**0.1507**	**0.1507**	**0.0000**	**197.3552**	**197.3552**	**0.0490**	**0.0000**	**198.3831**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0470	0.3086	0.6448	6.3000e-004	0.0166	4.1000e-003	0.0207	4.7500e-003	3.7700e-003	8.5100e-003	0.0000	56.7064	56.7064	4.8000e-004	0.0000	56.7165
Worker	0.0837	0.1436	1.2242	1.9600e-003	0.1804	1.4000e-003	0.1818	0.0479	1.2700e-003	0.0492	0.0000	148.1600	148.1600	9.2800e-003	0.0000	148.3549
Total	**0.1307**	**0.4523**	**1.8690**	**2.5900e-003**	**0.1971**	**5.5000e-003**	**0.2026**	**0.0527**	**5.0400e-003**	**0.0577**	**0.0000**	**204.8663**	**204.8663**	**9.7600e-003**	**0.0000**	**205.0715**

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	0.2776	2.3233	1.5083	2.1900e-003		0.1603	0.1603		0.1507	0.1507	0.0000	197.3549	197.3549	0.0490	0.0000	198.3828
Total	**0.2776**	**2.3233**	**1.5083**	**2.1900e-003**		**0.1603**	**0.1603**		**0.1507**	**0.1507**	**0.0000**	**197.3549**	**197.3549**	**0.0490**	**0.0000**	**198.3828**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0470	0.3086	0.6448	6.3000e-004	0.0166	4.1000e-003	0.0207	4.7500e-003	3.7700e-003	8.5100e-003	0.0000	56.7064	56.7064	4.8000e-004	0.0000	56.7165
Worker	0.0837	0.1436	1.2242	1.9600e-003	0.1804	1.4000e-003	0.1818	0.0479	1.2700e-003	0.0492	0.0000	148.1600	148.1600	9.2800e-003	0.0000	148.3549
Total	**0.1307**	**0.4523**	**1.8690**	**2.5900e-003**	**0.1971**	**5.5000e-003**	**0.2026**	**0.0527**	**5.0400e-003**	**0.0577**	**0.0000**	**204.8663**	**204.8663**	**9.7600e-003**	**0.0000**	**205.0715**

3.5 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	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0209**	**0.2239**	**0.1482**	**2.2000e-004**		**0.0126**	**0.0126**		**0.0116**	**0.0116**	**0.0000**	**21.0138**	**21.0138**	**6.3400e-003**	**0.0000**	**21.1469**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	1.1700e-003	9.9300e-003	2.0000e-005	1.4600e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2019	1.2019	8.0000e-005	0.0000	1.2035
Total	**6.8000e-004**	**1.1700e-003**	**9.9300e-003**	**2.0000e-005**	**1.4600e-003**	**1.0000e-005**	**1.4800e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2019**	**1.2019**	**8.0000e-005**	**0.0000**	**1.2035**

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	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0209**	**0.2239**	**0.1482**	**2.2000e-004**		**0.0126**	**0.0126**		**0.0116**	**0.0116**	**0.0000**	**21.0138**	**21.0138**	**6.3400e-003**	**0.0000**	**21.1469**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	1.1700e-003	9.9300e-003	2.0000e-005	1.4600e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2019	1.2019	8.0000e-005	0.0000	1.2035
Total	**6.8000e-004**	**1.1700e-003**	**9.9300e-003**	**2.0000e-005**	**1.4600e-003**	**1.0000e-005**	**1.4800e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2019**	**1.2019**	**8.0000e-005**	**0.0000**	**1.2035**

3.6 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	2.9735					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.0000	2.5533	2.5533	3.0000e-004	0.0000	2.5596
Total	**2.9772**	**0.0237**	**0.0188**	**3.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**2.5533**	**2.5533**	**3.0000e-004**	**0.0000**	**2.5596**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0400e-003	3.5000e-003	0.0298	5.0000e-005	4.3900e-003	3.0000e-005	4.4300e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.6058	3.6058	2.3000e-004	0.0000	3.6105
Total	**2.0400e-003**	**3.5000e-003**	**0.0298**	**5.0000e-005**	**4.3900e-003**	**3.0000e-005**	**4.4300e-003**	**1.1700e-003**	**3.0000e-005**	**1.2000e-003**	**0.0000**	**3.6058**	**3.6058**	**2.3000e-004**	**0.0000**	**3.6105**

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	2.9735					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.0000	2.5533	2.5533	3.0000e-004	0.0000	2.5596
Total	**2.9772**	**0.0237**	**0.0188**	**3.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**2.5533**	**2.5533**	**3.0000e-004**	**0.0000**	**2.5596**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0400e-003	3.5000e-003	0.0298	5.0000e-005	4.3900e-003	3.0000e-005	4.4300e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.6058	3.6058	2.3000e-004	0.0000	3.6105
Total	**2.0400e-003**	**3.5000e-003**	**0.0298**	**5.0000e-005**	**4.3900e-003**	**3.0000e-005**	**4.4300e-003**	**1.1700e-003**	**3.0000e-005**	**1.2000e-003**	**0.0000**	**3.6058**	**3.6058**	**2.3000e-004**	**0.0000**	**3.6105**

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					
Unmitigated	3.0975	5.9362	28.7323	0.0425	3.0838	0.0633	3.1472	0.8259	0.0583	0.8841	0.0000	3,255.7924	3,255.7924	0.1639	0.0000	3,259.2348

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,164.50	1,164.50	1164.50	3,213,008	3,213,008
City Park	0.00	0.00	0.00		
Condo/Townhouse	18.55	18.55	18.55	51,182	51,182
Regional Shopping Center	4,052.25	4,052.25	4052.25	4,907,516	4,907,516
Total	5,235.30	5,235.30	5,235.30	8,171,706	8,171,706

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.30	5.90	6.40	37.50	15.00	47.50	86	11	3
City Park	8.80	4.60	4.60	33.00	48.00	19.00	66	28	6
Condo/Townhouse	12.30	5.90	6.40	37.50	15.00	47.50	86	11	3
Regional Shopping Center	8.80	4.60	4.60	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.488515	0.036101	0.211699	0.155053	0.049887	0.007463	0.020047	0.014289	0.001917	0.002185	0.008106	0.001606	0.003132

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	582.1256	582.1256	0.0268	5.5400e-003	584.4037
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	608.8248	608.8248	0.0280	5.7900e-003	611.2074
NaturalGas Mitigated	0.0114	0.0977	0.0449	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5503	112.5503	2.1600e-003	2.0600e-003	113.2353
NaturalGas Unmitigated	0.0142	0.1215	0.0554	7.7000e-004		9.7800e-003	9.7800e-003		9.7800e-003	9.7800e-003	0.0000	140.0222	140.0222	2.6800e-003	2.5700e-003	140.8744

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					
Condo/Townhouse	79125.9	4.3000e-004	3.6500e-003	1.5500e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	4.2225	4.2225	8.0000e-005	8.0000e-005	4.2482
Regional Shopping Center	184611	1.0000e-003	9.0500e-003	7.6000e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	9.8515	9.8515	1.9000e-004	1.8000e-004	9.9115
Apartments Mid Rise	2.36018e+006	0.0127	0.1088	0.0463	6.9000e-004		8.7900e-003	8.7900e-003		8.7900e-003	8.7900e-003	0.0000	125.9483	125.9483	2.4100e-003	2.3100e-003	126.7148
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0142**	**0.1215**	**0.0554**	**7.6000e-004**		**9.7700e-003**	**9.7700e-003**		**9.7700e-003**	**9.7700e-003**	**0.0000**	**140.0223**	**140.0223**	**2.6800e-003**	**2.5700e-003**	**140.8744**

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					
Condo/Townhouse	63033.1	3.4000e-004	2.9000e-003	1.2400e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3637	3.3637	6.0000e-005	6.0000e-005	3.3842
Regional Shopping Center	162097	8.7000e-004	7.9500e-003	6.6700e-003	5.0000e-005		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004	0.0000	8.6501	8.6501	1.7000e-004	1.6000e-004	8.7028
Apartments Mid Rise	1.88398e+006	0.0102	0.0868	0.0369	5.5000e-004		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003	0.0000	100.5365	100.5365	1.9300e-003	1.8400e-003	101.1484
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0114**	**0.0977**	**0.0449**	**6.2000e-004**		**7.8500e-003**	**7.8500e-003**		**7.8500e-003**	**7.8500e-003**	**0.0000**	**112.5503**	**112.5503**	**2.1600e-003**	**2.0600e-003**	**113.2353**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	953202	272.7749	0.0125	2.5900e-003	273.8424
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	21623.2	6.1878	2.8000e-004	6.0000e-005	6.2121
Regional Shopping Center	1.15269e+006	329.8621	0.0152	3.1400e-003	331.1530
Total		**608.8248**	**0.0280**	**5.7900e-003**	**611.2074**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	940747	269.2108	0.0124	2.5600e-003	270.2644
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	21376.6	6.1173	2.8000e-004	6.0000e-005	6.1412
Regional Shopping Center	1.07209e+006	306.7975	0.0141	2.9200e-003	307.9981
Total		**582.1256**	**0.0268**	**5.5400e-003**	**584.4037**

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					
Unmitigated	2.4095	0.0244	2.0933	1.1000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	3.3856	3.3856	3.4000e-003	0.0000	3.4570

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	0.2974					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0469					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0652	0.0244	2.0933	1.1000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	3.3856	3.3856	3.4000e-003	0.0000	3.4570
Total	**2.4095**	**0.0244**	**2.0933**	**1.1000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**	**0.0000**	**3.3856**	**3.3856**	**3.4000e-003**	**0.0000**	**3.4570**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	63.5564	0.0328	0.0196	70.3328

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	17.8522 / 11.2546	45.2318	0.0235	0.0141	50.0987
City Park	0 / 0.714889	0.7160	3.0000e-005	1.0000e-005	0.7188
Condo/Townhouse	0.32577 / 0.205377	0.8254	4.3000e-004	2.6000e-004	0.9142
Regional Shopping Center	6.67023 / 4.08821	16.7831	8.7900e-003	5.2700e-003	18.6011
Total		**63.5564**	**0.0328**	**0.0197**	**70.3328**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	45.2548	2.6745	0.0000	101.4189

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	126.04	25.5850	1.5120	0.0000	57.3376
City Park	0.05	0.0102	6.0000e-004	0.0000	0.0228
Condo/Townhouse	2.3	0.4669	0.0276	0.0000	1.0463
Regional Shopping Center	94.55	19.1928	1.1343	0.0000	43.0123
Total		**45.2548**	**2.6745**	**0.0000**	**101.4189**

Westar - 2012 Original Project

Santa Barbara-South of Santa Ynez Range County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.60	Acre	0.60	26,136.00	0
Apartments Mid Rise	274.00	Dwelling Unit	13.09	395,201.00	745
Condo/Townhouse	5.00	Dwelling Unit	0.62	12,720.00	14
Regional Shopping Center	90.05	1000sqft	9.25	90,054.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Westar Final Phase. Santa Barbara County (South Central Coast Air Basin).

Land Use - Original project includes development of 5 condos, 274 apartment dwelling units, 90,054 square feet in retail, and 0.6 acre for parks on 23.56 acres.

Construction Phase - Default phasing assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Trips and VMT - Rounded trips to even amount. Assume 68 truck trips and a 30-miles per one-way trip for soil hauling.

Demolition - Demolition of 9,546 square feet of building material.

Grading - 300 cubic yards of soil exported.

Architectural Coating - Comply with SBCAPCD's Rule 323.

Vehicle Trips - Trip rates updated based on traffic analysis.

Consumer Products - Calculated consumer product emissions in separate spreadsheet.

Area Coating - Comply with SBCAPCD's Rule 323.

Construction Off-road Equipment Mitigation - Water exposed surface areas three times daily for a 61% reduction in fugitive dust emissions.

Energy Mitigation - Exceed Title 24 by 25%.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	58,095.00	46,595.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	174,285.00	135,081.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblAreaCoating	Area_Nonresidential_Exterior	58095	46595
tblAreaCoating	Area_Nonresidential_Interior	174285	135081
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	250
tblConstructionPhase	PhaseEndDate	3/18/2015	3/17/2015
tblConstructionPhase	PhaseStartDate	1/29/2015	1/28/2015
tblGrading	MaterialExported	0.00	300.00
tblLandUse	LandUseSquareFeet	274,000.00	395,201.00
tblLandUse	LandUseSquareFeet	5,000.00	12,720.00
tblLandUse	LandUseSquareFeet	90,050.00	90,054.00
tblLandUse	LotAcreage	7.21	13.09
tblLandUse	LotAcreage	0.31	0.62
tblLandUse	LotAcreage	2.07	9.25

tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripNumber	43.00	44.00
tblTripsAndVMT	HaulingTripNumber	38.00	68.00
tblTripsAndVMT	VendorTripNumber	49.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	241.00	242.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblVehicleTrips	ST_TR	7.16	4.25
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	7.16	3.71
tblVehicleTrips	ST_TR	49.97	45.00
tblVehicleTrips	SU_TR	6.07	4.25
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	6.07	3.71
tblVehicleTrips	SU_TR	25.24	45.00
tblVehicleTrips	WD_TR	6.59	4.25
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	6.59	3.71
tblVehicleTrips	WD_TR	42.94	45.00

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	11.5771	129.4704	90.8304	0.1091	9.5770	6.2830	15.8600	3.7824	5.8113	9.5937	0.0000	11,310.4103	11,310.4103	3.0793	0.0000	11,375.0761
2016	297.9163	33.7556	39.5380	0.0592	2.4716	2.0344	4.5060	0.6596	1.9099	2.5695	0.0000	5,488.4914	5,488.4914	0.7940	0.0000	5,505.1662
Total	**309.4934**	**163.2260**	**130.3683**	**0.1683**	**12.0486**	**8.3174**	**20.3660**	**4.4420**	**7.7212**	**12.1632**	**0.0000**	**16,798.9017**	**16,798.9017**	**3.8734**	**0.0000**	**16,880.2423**

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	11.5771	129.4704	90.8304	0.1091	3.9944	6.2830	10.2774	1.5444	5.8113	7.3557	0.0000	11,310.4103	11,310.4103	3.0793	0.0000	11,375.0761
2016	297.9163	33.7556	39.5380	0.0592	2.4716	2.0344	4.5060	0.6596	1.9099	2.5695	0.0000	5,488.4914	5,488.4914	0.7940	0.0000	5,505.1662
Total	**309.4934**	**163.2260**	**130.3683**	**0.1683**	**6.4660**	**8.3174**	**14.7834**	**2.2040**	**7.7212**	**9.9252**	**0.0000**	**16,798.9017**	**16,798.9017**	**3.8734**	**0.0000**	**16,880.2423**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**46.33**	**0.00**	**27.41**	**50.38**	**0.00**	**18.40**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	13.5701	0.2711	23.2592	1.2200e-003		0.1263	0.1263		0.1263	0.1263	0.0000	41.4659	41.4659	0.0417	0.0000	42.3407
Energy	0.0775	0.6655	0.3037	4.2300e-003		0.0536	0.0536		0.0536	0.0536		845.7430	845.7430	0.0162	0.0155	850.8901
Mobile	16.3802	30.6094	143.9319	0.2376	17.3201	0.3470	17.6671	4.6301	0.3192	4.9492		20,071.4746	20,071.4746	0.9937		20,092.3418
Total	**30.0278**	**31.5459**	**167.4948**	**0.2431**	**17.3201**	**0.5269**	**17.8470**	**4.6301**	**0.4990**	**5.1291**	**0.0000**	**20,958.6835**	**20,958.6835**	**1.0515**	**0.0155**	**20,985.5725**

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	13.5701	0.2711	23.2592	1.2200e-003		0.1263	0.1263		0.1263	0.1263	0.0000	41.4659	41.4659	0.0417	0.0000	42.3407
Energy	0.0623	0.5351	0.2458	3.4000e-003		0.0431	0.0431		0.0431	0.0431		679.8109	679.8109	0.0130	0.0125	683.9481
Mobile	16.3802	30.6094	143.9319	0.2376	17.3201	0.3470	17.6671	4.6301	0.3192	4.9492		20,071.4746	20,071.4746	0.9937		20,092.3418
Total	**30.0126**	**31.4156**	**167.4369**	**0.2423**	**17.3201**	**0.5164**	**17.8365**	**4.6301**	**0.4885**	**5.1186**	**0.0000**	**20,792.7514**	**20,792.7514**	**1.0484**	**0.0125**	**20,818.6306**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.05**	**0.41**	**0.03**	**0.34**	**0.00**	**1.99**	**0.06**	**0.00**	**2.11**	**0.20**	**0.00**	**0.79**	**0.79**	**0.30**	**19.66**	**0.80**

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	Grading	Grading	1/28/2015	3/17/2015	5	35	
3	Building Construction	Building Construction	3/18/2015	8/16/2016	5	370	
4	Paving	Paving	8/17/2016	9/13/2016	5	20	
5	Architectural Coating	Architectural Coating	9/14/2016	10/11/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0

Residential Indoor: 826,040; Residential Outdoor: 275,347; Non-Residential Indoor: 135,081; Non-Residential Outdoor: 46,595

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
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	16.00	0.00	44.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	68.00	12.30	4.60	30.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	242.00	50.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	0.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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					0.4772	0.0000	0.4772	0.0723	0.0000	0.0723			0.0000			0.0000
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858		4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**4.5083**	**48.3629**	**36.0738**	**0.0399**	**0.4772**	**2.4508**	**2.9280**	**0.0723**	**2.2858**	**2.3580**		**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

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	0.0569	0.7822	0.6832	1.6200e-003	0.0381	0.0117	0.0498	0.0104	0.0108	0.0212		164.6856	164.6856	1.3600e-003		164.7141
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0768	0.1184	1.1120	1.6300e-003	0.1497	1.2300e-003	0.1509	0.0397	1.1100e-003	0.0408		140.4152	140.4152	9.3300e-003		140.6112
Total	**0.1337**	**0.9006**	**1.7952**	**3.2500e-003**	**0.1877**	**0.0130**	**0.2007**	**0.0501**	**0.0119**	**0.0620**		**305.1008**	**305.1008**	**0.0107**		**305.3252**

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					0.1861	0.0000	0.1861	0.0282	0.0000	0.0282			0.0000			0.0000
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858	0.0000	4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**4.5083**	**48.3629**	**36.0738**	**0.0399**	**0.1861**	**2.4508**	**2.6369**	**0.0282**	**2.2858**	**2.3140**	**0.0000**	**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

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	0.0569	0.7822	0.6832	1.6200e-003	0.0381	0.0117	0.0498	0.0104	0.0108	0.0212		164.6856	164.6856	1.3600e-003		164.7141
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0768	0.1184	1.1120	1.6300e-003	0.1497	1.2300e-003	0.1509	0.0397	1.1100e-003	0.0408		140.4152	140.4152	9.3300e-003		140.6112
Total	**0.1337**	**0.9006**	**1.7952**	**3.2500e-003**	**0.1877**	**0.0130**	**0.2007**	**0.0501**	**0.0119**	**0.0620**		**305.1008**	**305.1008**	**0.0107**		**305.3252**

3.3 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					8.6746	0.0000	8.6746	3.5967	0.0000	3.5967			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**8.6746**	**3.8022**	**12.4768**	**3.5967**	**3.4980**	**7.0947**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0640	1.0122	0.7315	2.1300e-003	0.0504	0.0155	0.0659	0.0138	0.0142	0.0280		216.3537	216.3537	1.7400e-003		216.3903
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.1480	1.3900	2.0400e-003	0.1871	1.5400e-003	0.1886	0.0496	1.3900e-003	0.0510		175.5190	175.5190	0.0117		175.7640
Total	**0.1600**	**1.1602**	**2.1215**	**4.1700e-003**	**0.2375**	**0.0170**	**0.2545**	**0.0634**	**0.0156**	**0.0790**		**391.8727**	**391.8727**	**0.0134**		**392.1543**

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					3.3831	0.0000	3.3831	1.4027	0.0000	1.4027			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**3.3831**	**3.8022**	**7.1853**	**1.4027**	**3.4980**	**4.9007**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

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	0.0640	1.0122	0.7315	2.1300e-003	0.0504	0.0155	0.0659	0.0138	0.0142	0.0280		216.3537	216.3537	1.7400e-003		216.3903
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.1480	1.3900	2.0400e-003	0.1871	1.5400e-003	0.1886	0.0496	1.3900e-003	0.0510		175.5190	175.5190	0.0117		175.7640
Total	**0.1600**	**1.1602**	**2.1215**	**4.1700e-003**	**0.2375**	**0.0170**	**0.2545**	**0.0634**	**0.0156**	**0.0790**		**391.8727**	**391.8727**	**0.0134**		**392.1543**

3.4 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		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5829	4.1671	6.9782	7.7500e-003	0.2078	0.0630	0.2709	0.0592	0.0579	0.1171		779.1443	779.1443	7.3900e-003		779.2996
Worker	1.1616	1.7905	16.8190	0.0247	2.2638	0.0186	2.2824	0.6004	0.0169	0.6173		2,123.7802	2,123.7802	0.1411		2,126.7438
Total	**1.7445**	**5.9576**	**23.7972**	**0.0324**	**2.4716**	**0.0817**	**2.5532**	**0.6596**	**0.0748**	**0.7343**		**2,902.9245**	**2,902.9245**	**0.1485**		**2,906.0434**

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	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5829	4.1671	6.9782	7.7500e-003	0.2078	0.0630	0.2709	0.0592	0.0579	0.1171		779.1443	779.1443	7.3900e-003		779.2996
Worker	1.1616	1.7905	16.8190	0.0247	2.2638	0.0186	2.2824	0.6004	0.0169	0.6173		2,123.7802	2,123.7802	0.1411		2,126.7438
Total	**1.7445**	**5.9576**	**23.7972**	**0.0324**	**2.4716**	**0.0817**	**2.5532**	**0.6596**	**0.0748**	**0.7343**		**2,902.9245**	**2,902.9245**	**0.1485**		**2,906.0434**

3.4 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		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5072	3.6788	6.3599	7.7400e-003	0.2079	0.0499	0.2577	0.0592	0.0458	0.1050		770.7990	770.7990	6.4300e-003		770.9340
Worker	0.9982	1.5705	14.6714	0.0246	2.2638	0.0172	2.2809	0.6004	0.0156	0.6160		2,048.4061	2,048.4061	0.1256		2,051.0432
Total	**1.5054**	**5.2493**	**21.0313**	**0.0324**	**2.4716**	**0.0670**	**2.5387**	**0.6596**	**0.0615**	**0.7210**		**2,819.2050**	**2,819.2050**	**0.1320**		**2,821.9772**

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	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5072	3.6788	6.3599	7.7400e-003	0.2079	0.0499	0.2577	0.0592	0.0458	0.1050		770.7990	770.7990	6.4300e-003		770.9340
Worker	0.9982	1.5705	14.6714	0.0246	2.2638	0.0172	2.2809	0.6004	0.0156	0.6160		2,048.4061	2,048.4061	0.1256		2,051.0432
Total	**1.5054**	**5.2493**	**21.0313**	**0.0324**	**2.4716**	**0.0670**	**2.5387**	**0.6596**	**0.0615**	**0.7210**		**2,819.2050**	**2,819.2050**	**0.1320**		**2,821.9772**

3.5 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		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0660	0.1038	0.9700	1.6300e-003	0.1497	1.1300e-003	0.1508	0.0397	1.0300e-003	0.0407		135.4318	135.4318	8.3000e-003		135.6062
Total	**0.0660**	**0.1038**	**0.9700**	**1.6300e-003**	**0.1497**	**1.1300e-003**	**0.1508**	**0.0397**	**1.0300e-003**	**0.0407**		**135.4318**	**135.4318**	**8.3000e-003**		**135.6062**

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	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0660	0.1038	0.9700	1.6300e-003	0.1497	1.1300e-003	0.1508	0.0397	1.0300e-003	0.0407		135.4318	135.4318	8.3000e-003		135.6062
Total	**0.0660**	**0.1038**	**0.9700**	**1.6300e-003**	**0.1497**	**1.1300e-003**	**0.1508**	**0.0397**	**1.0300e-003**	**0.0407**		**135.4318**	**135.4318**	**8.3000e-003**		**135.6062**

3.6 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	297.3499					0.0000	0.0000		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		281.4481	281.4481	0.0332		282.1449
Total	**297.7183**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1980	0.3115	2.9100	4.8800e-003	0.4490	3.4000e-003	0.4524	0.1191	3.1000e-003	0.1222		406.2954	406.2954	0.0249		406.8185
Total	**0.1980**	**0.3115**	**2.9100**	**4.8800e-003**	**0.4490**	**3.4000e-003**	**0.4524**	**0.1191**	**3.1000e-003**	**0.1222**		**406.2954**	**406.2954**	**0.0249**		**406.8185**

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	297.3499					0.0000	0.0000		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	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**297.7183**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1980	0.3115	2.9100	4.8800e-003	0.4490	3.4000e-003	0.4524	0.1191	3.1000e-003	0.1222		406.2954	406.2954	0.0249		406.8185
Total	**0.1980**	**0.3115**	**2.9100**	**4.8800e-003**	**0.4490**	**3.4000e-003**	**0.4524**	**0.1191**	**3.1000e-003**	**0.1222**		**406.2954**	**406.2954**	**0.0249**		**406.8185**

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					
Unmitigated	16.3802	30.6094	143.9319	0.2376	17.3201	0.3470	17.6671	4.6301	0.3192	4.9492		20,071.4746	20,071.4746	0.9937		20,092.3418

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,164.50	1,164.50	1164.50	3,213,008	3,213,008
City Park	0.00	0.00	0.00		
Condo/Townhouse	18.55	18.55	18.55	51,182	51,182
Regional Shopping Center	4,052.25	4,052.25	4052.25	4,907,516	4,907,516
Total	5,235.30	5,235.30	5,235.30	8,171,706	8,171,706

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.30	5.90	6.40	37.50	15.00	47.50	86	11	3
City Park	8.80	4.60	4.60	33.00	48.00	19.00	66	28	6
Condo/Townhouse	12.30	5.90	6.40	37.50	15.00	47.50	86	11	3
Regional Shopping Center	8.80	4.60	4.60	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.488515	0.036101	0.211699	0.155053	0.049887	0.007463	0.020047	0.014289	0.001917	0.002185	0.008106	0.001606	0.003132

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0623	0.5351	0.2458	3.4000e-003		0.0431	0.0431		0.0431	0.0431		679.8109	679.8109	0.0130	0.0125	683.9481
NaturalGas Unmitigated	0.0775	0.6655	0.3037	4.2300e-003		0.0536	0.0536		0.0536	0.0536		845.7430	845.7430	0.0162	0.0155	850.8901

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	216.783	2.3400e-003	0.0200	8.5000e-003	1.3000e-004		1.6200e-003	1.6200e-003		1.6200e-003	1.6200e-003		25.5039	25.5039	4.9000e-004	4.7000e-004	25.6591
Regional Shopping Center	505.783	5.4500e-003	0.0496	0.0417	3.0000e-004		3.7700e-003	3.7700e-003		3.7700e-003	3.7700e-003		59.5039	59.5039	1.1400e-003	1.0900e-003	59.8660
Apartments Mid Rise	6466.25	0.0697	0.5959	0.2536	3.8000e-003		0.0482	0.0482		0.0482	0.0482		760.7353	760.7353	0.0146	0.0140	765.3650
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0775**	**0.6655**	**0.3037**	**4.2300e-003**		**0.0536**	**0.0536**		**0.0536**	**0.0536**		**845.7430**	**845.7430**	**0.0162**	**0.0155**	**850.8901**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Regional Shopping Center	0.444102	4.7900e-003	0.0435	0.0366	2.6000e-004		3.3100e-003	3.3100e-003		3.3100e-003	3.3100e-003		52.2473	52.2473	1.0000e-003	9.6000e-004	52.5653
Apartments Mid Rise	5.1616	0.0557	0.4757	0.2024	3.0400e-003		0.0385	0.0385		0.0385	0.0385		607.2467	607.2467	0.0116	0.0111	610.9423
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0.172694	1.8600e-003	0.0159	6.7700e-003	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003		20.3169	20.3169	3.9000e-004	3.7000e-004	20.4405
Total		**0.0623**	**0.5351**	**0.2458**	**3.4000e-003**		**0.0431**	**0.0431**		**0.0431**	**0.0431**		**679.8109**	**679.8109**	**0.0130**	**0.0125**	**683.9481**

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					
Unmitigated	13.5701	0.2711	23.2592	1.2200e-003		0.1263	0.1263		0.1263	0.1263	0.0000	41.4659	41.4659	0.0417	0.0000	42.3407

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	1.6293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.2160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.7248	0.2711	23.2592	1.2200e-003		0.1263	0.1263		0.1263	0.1263		41.4659	41.4659	0.0417		42.3407
Total	**13.5701**	**0.2711**	**23.2592**	**1.2200e-003**		**0.1263**	**0.1263**		**0.1263**	**0.1263**	**0.0000**	**41.4659**	**41.4659**	**0.0417**	**0.0000**	**42.3407**

Westar - 2012 Original Project

Santa Barbara-South of Santa Ynez Range County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.60	Acre	0.60	26,136.00	0
Apartments Mid Rise	274.00	Dwelling Unit	13.09	395,201.00	745
Condo/Townhouse	5.00	Dwelling Unit	0.62	12,720.00	14
Regional Shopping Center	90.05	1000sqft	9.25	90,054.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Westar Final Phase. Santa Barbara County (South Central Coast Air Basin).

Land Use - Original project includes development of 5 condos, 274 apartment dwelling units, 90,054 square feet in retail, and 0.6 acre for parks on 23.56 acres.

Construction Phase - Default phasing assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Trips and VMT - Rounded trips to even amount. Assume 68 truck trips and a 30-miles per one-way trip for soil hauling.

Demolition - Demolition of 9,546 square feet of building material.

Grading - 300 cubic yards of soil exported.

Architectural Coating - Comply with SBCAPCD's Rule 323.

Vehicle Trips - Trip rates updated based on traffic analysis.

Consumer Products - Calculated consumer product emissions in separate spreadsheet.

Area Coating - Comply with SBCAPCD's Rule 323.

Construction Off-road Equipment Mitigation - Water exposed surface areas three times daily for a 61% reduction in fugitive dust emissions.

Energy Mitigation - Exceed Title 24 by 25%.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	58,095.00	46,595.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	174,285.00	135,081.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblAreaCoating	Area_Nonresidential_Exterior	58095	46595
tblAreaCoating	Area_Nonresidential_Interior	174285	135081
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	250
tblConstructionPhase	PhaseEndDate	3/18/2015	3/17/2015
tblConstructionPhase	PhaseStartDate	1/29/2015	1/28/2015
tblGrading	MaterialExported	0.00	300.00
tblLandUse	LandUseSquareFeet	274,000.00	395,201.00
tblLandUse	LandUseSquareFeet	5,000.00	12,720.00
tblLandUse	LandUseSquareFeet	90,050.00	90,054.00
tblLandUse	LotAcreage	7.21	13.09
tblLandUse	LotAcreage	0.31	0.62

tblLandUse	LotAcreage	2.07	9.25
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripNumber	43.00	44.00
tblTripsAndVMT	HaulingTripNumber	38.00	68.00
tblTripsAndVMT	VendorTripNumber	49.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	241.00	242.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblVehicleTrips	ST_TR	7.16	4.25
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	7.16	3.71
tblVehicleTrips	ST_TR	49.97	45.00
tblVehicleTrips	SU_TR	6.07	4.25
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	6.07	3.71
tblVehicleTrips	SU_TR	25.24	45.00
tblVehicleTrips	WD_TR	6.59	4.25
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	6.59	3.71
tblVehicleTrips	WD_TR	42.94	45.00

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	11.6119	129.5529	91.3235	0.1090	9.5770	6.2831	15.8601	3.7824	5.8114	9.5938	0.0000	11,302.4061	11,302.4061	3.0794	0.0000	11,367.0726
2016	297.9353	34.0335	42.9897	0.0586	2.4716	2.0354	4.5070	0.6596	1.9108	2.5704	0.0000	5,432.1268	5,432.1268	0.7943	0.0000	5,448.8066
Total	**309.5472**	**163.5864**	**134.3132**	**0.1676**	**12.0486**	**8.3185**	**20.3671**	**4.4420**	**7.7222**	**12.1643**	**0.0000**	**16,734.5329**	**16,734.5329**	**3.8736**	**0.0000**	**16,815.8792**

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	11.6119	129.5529	91.3235	0.1090	3.9944	6.2831	10.2775	1.5444	5.8114	7.3558	0.0000	11,302.4061	11,302.4061	3.0794	0.0000	11,367.0726
2016	297.9353	34.0335	42.9897	0.0586	2.4716	2.0354	4.5070	0.6596	1.9108	2.5704	0.0000	5,432.1268	5,432.1268	0.7943	0.0000	5,448.8066
Total	**309.5472**	**163.5864**	**134.3132**	**0.1676**	**6.4660**	**8.3185**	**14.7845**	**2.2040**	**7.7222**	**9.9262**	**0.0000**	**16,734.5329**	**16,734.5329**	**3.8736**	**0.0000**	**16,815.8791**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**46.33**	**0.00**	**27.41**	**50.38**	**0.00**	**18.40**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	13.5701	0.2711	23.2592	1.2200e-003		0.1263	0.1263		0.1263	0.1263	0.0000	41.4659	41.4659	0.0417	0.0000	42.3407
Energy	0.0775	0.6655	0.3037	4.2300e-003		0.0536	0.0536		0.0536	0.0536		845.7430	845.7430	0.0162	0.0155	850.8901
Mobile	18.2230	32.7333	168.7368	0.2336	17.3201	0.3504	17.6705	4.6301	0.3223	4.9523		19,702.5668	19,702.5668	0.9945		19,723.4519
Total	**31.8706**	**33.6699**	**192.2996**	**0.2390**	**17.3201**	**0.5302**	**17.8503**	**4.6301**	**0.5021**	**5.1322**	**0.0000**	**20,589.7758**	**20,589.7758**	**1.0524**	**0.0155**	**20,616.6826**

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	13.5701	0.2711	23.2592	1.2200e-003		0.1263	0.1263		0.1263	0.1263	0.0000	41.4659	41.4659	0.0417	0.0000	42.3407
Energy	0.0623	0.5351	0.2458	3.4000e-003		0.0431	0.0431		0.0431	0.0431		679.8109	679.8109	0.0130	0.0125	683.9481
Mobile	18.2230	32.7333	168.7368	0.2336	17.3201	0.3504	17.6705	4.6301	0.3223	4.9523		19,702.5668	19,702.5668	0.9945		19,723.4519
Total	**31.8554**	**33.5395**	**192.2417**	**0.2382**	**17.3201**	**0.5197**	**17.8398**	**4.6301**	**0.4916**	**5.1216**	**0.0000**	**20,423.8436**	**20,423.8436**	**1.0492**	**0.0125**	**20,449.7406**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.05**	**0.39**	**0.03**	**0.35**	**0.00**	**1.98**	**0.06**	**0.00**	**2.09**	**0.20**	**0.00**	**0.81**	**0.81**	**0.30**	**19.66**	**0.81**

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	Grading	Grading	1/28/2015	3/17/2015	5	35	
3	Building Construction	Building Construction	3/18/2015	8/16/2016	5	370	
4	Paving	Paving	8/17/2016	9/13/2016	5	20	
5	Architectural Coating	Architectural Coating	9/14/2016	10/11/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0

Residential Indoor: 826,040; Residential Outdoor: 275,347; Non-Residential Indoor: 135,081; Non-Residential Outdoor: 46,595

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
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	16.00	0.00	44.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	68.00	12.30	4.60	30.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	242.00	50.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	0.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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					0.4772	0.0000	0.4772	0.0723	0.0000	0.0723			0.0000			0.0000
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858		4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**4.5083**	**48.3629**	**36.0738**	**0.0399**	**0.4772**	**2.4508**	**2.9280**	**0.0723**	**2.2858**	**2.3580**		**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

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	0.0662	0.8016	0.8608	1.6200e-003	0.0381	0.0118	0.0499	0.0104	0.0109	0.0213		164.2944	164.2944	1.3700e-003		164.3232
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0846	0.1351	1.1827	1.5900e-003	0.1497	1.2300e-003	0.1509	0.0397	1.1100e-003	0.0408		137.1852	137.1852	9.3300e-003		137.3812
Total	**0.1507**	**0.9367**	**2.0435**	**3.2100e-003**	**0.1877**	**0.0130**	**0.2008**	**0.0501**	**0.0120**	**0.0621**		**301.4796**	**301.4796**	**0.0107**		**301.7044**

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					0.1861	0.0000	0.1861	0.0282	0.0000	0.0282			0.0000			0.0000
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858	0.0000	4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**4.5083**	**48.3629**	**36.0738**	**0.0399**	**0.1861**	**2.4508**	**2.6369**	**0.0282**	**2.2858**	**2.3140**	**0.0000**	**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

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	0.0662	0.8016	0.8608	1.6200e-003	0.0381	0.0118	0.0499	0.0104	0.0109	0.0213		164.2944	164.2944	1.3700e-003		164.3232
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0846	0.1351	1.1827	1.5900e-003	0.1497	1.2300e-003	0.1509	0.0397	1.1100e-003	0.0408		137.1852	137.1852	9.3300e-003		137.3812
Total	**0.1507**	**0.9367**	**2.0435**	**3.2100e-003**	**0.1877**	**0.0130**	**0.2008**	**0.0501**	**0.0120**	**0.0621**		**301.4796**	**301.4796**	**0.0107**		**301.7044**

3.3 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					8.6746	0.0000	8.6746	3.5967	0.0000	3.5967			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**8.6746**	**3.8022**	**12.4768**	**3.5967**	**3.4980**	**7.0947**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0721	1.0378	0.8879	2.1300e-003	0.0504	0.0155	0.0659	0.0138	0.0143	0.0280		216.0082	216.0082	1.7600e-003		216.0451
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1057	0.1688	1.4784	1.9900e-003	0.1871	1.5400e-003	0.1886	0.0496	1.3900e-003	0.0510		171.4815	171.4815	0.0117		171.7265
Total	**0.1778**	**1.2067**	**2.3663**	**4.1200e-003**	**0.2375**	**0.0171**	**0.2545**	**0.0634**	**0.0157**	**0.0790**		**387.4898**	**387.4898**	**0.0134**		**387.7716**

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					3.3831	0.0000	3.3831	1.4027	0.0000	1.4027			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**3.3831**	**3.8022**	**7.1853**	**1.4027**	**3.4980**	**4.9007**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

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	0.0721	1.0378	0.8879	2.1300e-003	0.0504	0.0155	0.0659	0.0138	0.0143	0.0280		216.0082	216.0082	1.7600e-003		216.0451
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1057	0.1688	1.4784	1.9900e-003	0.1871	1.5400e-003	0.1886	0.0496	1.3900e-003	0.0510		171.4815	171.4815	0.0117		171.7265
Total	**0.1778**	**1.2067**	**2.3663**	**4.1200e-003**	**0.2375**	**0.0171**	**0.2545**	**0.0634**	**0.0157**	**0.0790**		**387.4898**	**387.4898**	**0.0134**		**387.7716**

3.4 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		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7284	4.2316	9.7016	7.7100e-003	0.2078	0.0644	0.2722	0.0592	0.0592	0.1184		769.9787	769.9787	7.6500e-003		770.1393
Worker	1.2790	2.0428	17.8883	0.0241	2.2638	0.0186	2.2824	0.6004	0.0169	0.6173		2,074.9265	2,074.9265	0.1411		2,077.8901
Total	**2.0073**	**6.2744**	**27.5899**	**0.0318**	**2.4716**	**0.0831**	**2.5546**	**0.6596**	**0.0761**	**0.7356**		**2,844.9052**	**2,844.9052**	**0.1488**		**2,848.0294**

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	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7284	4.2316	9.7016	7.7100e-003	0.2078	0.0644	0.2722	0.0592	0.0592	0.1184		769.9787	769.9787	7.6500e-003		770.1393
Worker	1.2790	2.0428	17.8883	0.0241	2.2638	0.0186	2.2824	0.6004	0.0169	0.6173		2,074.9265	2,074.9265	0.1411		2,077.8901
Total	**2.0073**	**6.2744**	**27.5899**	**0.0318**	**2.4716**	**0.0831**	**2.5546**	**0.6596**	**0.0761**	**0.7356**		**2,844.9052**	**2,844.9052**	**0.1488**		**2,848.0294**

3.4 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		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6320	3.7343	8.9867	7.6900e-003	0.2079	0.0509	0.2587	0.0592	0.0468	0.1059		761.6833	761.6833	6.6700e-003		761.8232
Worker	1.0940	1.7928	15.4964	0.0241	2.2638	0.0172	2.2809	0.6004	0.0156	0.6160		2,001.1572	2,001.1572	0.1256		2,003.7943
Total	**1.7260**	**5.5271**	**24.4831**	**0.0318**	**2.4716**	**0.0680**	**2.5397**	**0.6596**	**0.0624**	**0.7220**		**2,762.8404**	**2,762.8404**	**0.1323**		**2,765.6175**

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	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6320	3.7343	8.9867	7.6900e-003	0.2079	0.0509	0.2587	0.0592	0.0468	0.1059		761.6833	761.6833	6.6700e-003		761.8232
Worker	1.0940	1.7928	15.4964	0.0241	2.2638	0.0172	2.2809	0.6004	0.0156	0.6160		2,001.1572	2,001.1572	0.1256		2,003.7943
Total	**1.7260**	**5.5271**	**24.4831**	**0.0318**	**2.4716**	**0.0680**	**2.5397**	**0.6596**	**0.0624**	**0.7220**		**2,762.8404**	**2,762.8404**	**0.1323**		**2,765.6175**

3.5 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		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0723	0.1185	1.0246	1.5900e-003	0.1497	1.1300e-003	0.1508	0.0397	1.0300e-003	0.0407		132.3079	132.3079	8.3000e-003		132.4823
Total	**0.0723**	**0.1185**	**1.0246**	**1.5900e-003**	**0.1497**	**1.1300e-003**	**0.1508**	**0.0397**	**1.0300e-003**	**0.0407**		**132.3079**	**132.3079**	**8.3000e-003**		**132.4823**

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	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0723	0.1185	1.0246	1.5900e-003	0.1497	1.1300e-003	0.1508	0.0397	1.0300e-003	0.0407		132.3079	132.3079	8.3000e-003		132.4823
Total	**0.0723**	**0.1185**	**1.0246**	**1.5900e-003**	**0.1497**	**1.1300e-003**	**0.1508**	**0.0397**	**1.0300e-003**	**0.0407**		**132.3079**	**132.3079**	**8.3000e-003**		**132.4823**

3.6 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	297.3499					0.0000	0.0000		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		281.4481	281.4481	0.0332		282.1449
Total	**297.7183**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2170	0.3556	3.0737	4.7700e-003	0.4490	3.4000e-003	0.4524	0.1191	3.1000e-003	0.1222		396.9237	396.9237	0.0249		397.4468
Total	**0.2170**	**0.3556**	**3.0737**	**4.7700e-003**	**0.4490**	**3.4000e-003**	**0.4524**	**0.1191**	**3.1000e-003**	**0.1222**		**396.9237**	**396.9237**	**0.0249**		**397.4468**

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	297.3499					0.0000	0.0000		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	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**297.7183**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2170	0.3556	3.0737	4.7700e-003	0.4490	3.4000e-003	0.4524	0.1191	3.1000e-003	0.1222		396.9237	396.9237	0.0249		397.4468
Total	**0.2170**	**0.3556**	**3.0737**	**4.7700e-003**	**0.4490**	**3.4000e-003**	**0.4524**	**0.1191**	**3.1000e-003**	**0.1222**		**396.9237**	**396.9237**	**0.0249**		**397.4468**

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					
Unmitigated	18.2230	32.7333	168.7368	0.2336	17.3201	0.3504	17.6705	4.6301	0.3223	4.9523		19,702.5668	19,702.5668	0.9945		19,723.4519

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,164.50	1,164.50	1164.50	3,213,008	3,213,008
City Park	0.00	0.00	0.00		
Condo/Townhouse	18.55	18.55	18.55	51,182	51,182
Regional Shopping Center	4,052.25	4,052.25	4052.25	4,907,516	4,907,516
Total	5,235.30	5,235.30	5,235.30	8,171,706	8,171,706

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.30	5.90	6.40	37.50	15.00	47.50	86	11	3
City Park	8.80	4.60	4.60	33.00	48.00	19.00	66	28	6
Condo/Townhouse	12.30	5.90	6.40	37.50	15.00	47.50	86	11	3
Regional Shopping Center	8.80	4.60	4.60	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.488515	0.036101	0.211699	0.155053	0.049887	0.007463	0.020047	0.014289	0.001917	0.002185	0.008106	0.001606	0.003132

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0623	0.5351	0.2458	3.4000e-003		0.0431	0.0431		0.0431	0.0431		679.8109	679.8109	0.0130	0.0125	683.9481
NaturalGas Unmitigated	0.0775	0.6655	0.3037	4.2300e-003		0.0536	0.0536		0.0536	0.0536		845.7430	845.7430	0.0162	0.0155	850.8901

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	216.783	2.3400e-003	0.0200	8.5000e-003	1.3000e-004		1.6200e-003	1.6200e-003		1.6200e-003	1.6200e-003		25.5039	25.5039	4.9000e-004	4.7000e-004	25.6591
Regional Shopping Center	505.783	5.4500e-003	0.0496	0.0417	3.0000e-004		3.7700e-003	3.7700e-003		3.7700e-003	3.7700e-003		59.5039	59.5039	1.1400e-003	1.0900e-003	59.8660
Apartments Mid Rise	6466.25	0.0697	0.5959	0.2536	3.8000e-003		0.0482	0.0482		0.0482	0.0482		760.7353	760.7353	0.0146	0.0140	765.3650
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0775**	**0.6655**	**0.3037**	**4.2300e-003**		**0.0536**	**0.0536**		**0.0536**	**0.0536**		**845.7430**	**845.7430**	**0.0162**	**0.0155**	**850.8901**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	0.172694	1.8600e-003	0.0159	6.7700e-003	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003		20.3169	20.3169	3.9000e-004	3.7000e-004	20.4405
Regional Shopping Center	0.444102	4.7900e-003	0.0435	0.0366	2.6000e-004		3.3100e-003	3.3100e-003		3.3100e-003	3.3100e-003		52.2473	52.2473	1.0000e-003	9.6000e-004	52.5653
Apartments Mid Rise	5.1616	0.0557	0.4757	0.2024	3.0400e-003		0.0385	0.0385		0.0385	0.0385		607.2467	607.2467	0.0116	0.0111	610.9423
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0623**	**0.5351**	**0.2458**	**3.4000e-003**		**0.0431**	**0.0431**		**0.0431**	**0.0431**		**679.8109**	**679.8109**	**0.0130**	**0.0125**	**683.9481**

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					
Unmitigated	13.5701	0.2711	23.2592	1.2200e-003		0.1263	0.1263		0.1263	0.1263	0.0000	41.4659	41.4659	0.0417	0.0000	42.3407

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	1.6293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.2160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.7248	0.2711	23.2592	1.2200e-003		0.1263	0.1263		0.1263	0.1263		41.4659	41.4659	0.0417		42.3407
Total	**13.5701**	**0.2711**	**23.2592**	**1.2200e-003**		**0.1263**	**0.1263**		**0.1263**	**0.1263**	**0.0000**	**41.4659**	**41.4659**	**0.0417**	**0.0000**	**42.3407**

ATTACHMENT B

CalEEMod Output –
Amended Project
Construction and Operational Emissions
Winter, Summer, and Annual Output

Westar - Amended Project

Santa Barbara-South of Santa Ynez Range County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.42	Acre	0.42	18,295.20	0
Apartments Mid Rise	299.00	Dwelling Unit	14.99	431,584.00	813
Regional Shopping Center	75.90	1000sqft	8.15	75,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Westar Final Phase. Santa Barbara County (South Central Coast Air Basin).

Land Use - Original project includes development of 299 apartment dwelling units, 75,900 square feet in retail, and 0.42 acre for parks on 23.56 acres.

Construction Phase - Soil hauling for triangle site would occur over 12 days, default phasing assumed for

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Construction equipment based on previous analysis.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Trips and VMT - Rounded trips to even amount. 834 trucks used during soil hauling of triangle site and a 35-mile per one-way trip for soil hauling. 30-mile haul length for the original project.

Demolition - Demolition of 9,546 square feet of building material.

Grading - 300 cubic yards exported during mass grading of project site. 7,500 cubic yards of soil exported at triangle site.

Architectural Coating - Comply with SBCAPCD's Rule 323.

Vehicle Trips - Trip rates updated based on traffic analysis.

Consumer Products - Calculated consumer product emissions in separate spreadsheet.

Area Coating - Comply with SBCAPCD's Rule 323.

Construction Off-road Equipment Mitigation - Water exposed surface areas three times daily for a 61% reduction in fugitive dust emissions.

Energy Mitigation - Exceed Title 24 by 25%.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	47,098.00	39,048.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	141,293.00	113,850.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblAreaCoating	Area_Nonresidential_Exterior	47098	39048
tblAreaCoating	Area_Nonresidential_Interior	141293	113850
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	250
tblConstructionPhase	NumDays	35.00	12.00
tblGrading	MaterialExported	0.00	300.00
tblGrading	MaterialExported	0.00	7,500.00
tblLandUse	LandUseSquareFeet	299,000.00	431,584.00
tblLandUse	LotAcreage	7.87	14.99
tblLandUse	LotAcreage	1.74	8.15
tblProjectCharacteristics	OperationalYear	2014	2017

tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripNumber	43.00	44.00
tblTripsAndVMT	HaulingTripNumber	38.00	68.00
tblTripsAndVMT	HaulingTripNumber	938.00	1,668.00
tblTripsAndVMT	VendorTripNumber	47.00	48.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	247.00	248.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	49.00	50.00
tblVehicleTrips	ST_TR	7.16	4.20
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	49.97	47.83
tblVehicleTrips	SU_TR	6.07	4.20
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	25.24	47.83
tblVehicleTrips	WD_TR	6.59	4.20
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	42.94	47.83

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	0.7776	6.4083	6.3418	8.7500e-003	0.4800	0.3351	0.8151	0.1579	0.3128	0.4706	0.0000	773.0969	773.0969	0.1253	0.0000	775.7289
2016	3.5233	3.2398	3.8595	5.5000e-003	0.2229	0.1936	0.4165	0.0596	0.1816	0.2412	0.0000	464.3427	464.3427	0.0706	0.0000	465.8248
Total	**4.3009**	**9.6481**	**10.2013**	**0.0143**	**0.7029**	**0.5287**	**1.2316**	**0.2174**	**0.4944**	**0.7118**	**0.0000**	**1,237.4396**	**1,237.4396**	**0.1959**	**0.0000**	**1,241.5537**

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	0.7776	6.4082	6.3418	8.7500e-003	0.3524	0.3351	0.6875	0.1058	0.3128	0.4186	0.0000	773.0964	773.0964	0.1253	0.0000	775.7284
2016	3.5233	3.2398	3.8595	5.5000e-003	0.2229	0.1936	0.4165	0.0596	0.1816	0.2412	0.0000	464.3425	464.3425	0.0706	0.0000	465.8246
Total	**4.3009**	**9.6481**	**10.2013**	**0.0143**	**0.5753**	**0.5287**	**1.1040**	**0.1654**	**0.4944**	**0.6597**	**0.0000**	**1,237.4388**	**1,237.4388**	**0.1959**	**0.0000**	**1,241.5529**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**18.15**	**0.00**	**10.36**	**23.94**	**0.00**	**7.31**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.4288	0.0262	2.2432	1.2000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	3.6279	3.6279	3.6400e-003	0.0000	3.7044
Energy	0.0147	0.1263	0.0569	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	721.4230	721.4230	0.0293	8.1500e-003	724.5629
Mobile	2.9129	5.6678	27.2850	0.0408	2.9667	0.0607	3.0274	0.7945	0.0558	0.8503	0.0000	3,127.0361	3,127.0361	0.1568	0.0000	3,130.3278
Waste						0.0000	0.0000		0.0000	0.0000	44.1059	0.0000	44.1059	2.6066	0.0000	98.8441
Water						0.0000	0.0000		0.0000	0.0000	8.8815	55.1244	64.0060	0.0331	0.0198	70.8511
Total	**5.3565**	**5.8203**	**29.5851**	**0.0417**	**2.9667**	**0.0830**	**3.0498**	**0.7945**	**0.0782**	**0.8727**	**52.9874**	**3,907.2114**	**3,960.1988**	**2.8293**	**0.0280**	**4,028.2903**

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	2.4288	0.0262	2.2432	1.2000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	3.6279	3.6279	3.6400e-003	0.0000	3.7044
Energy	0.0118	0.1014	0.0459	6.4000e-004		8.1700e-003	8.1700e-003		8.1700e-003	8.1700e-003	0.0000	669.3513	669.3513	0.0276	7.4000e-003	672.2250
Mobile	2.9129	5.6678	27.2850	0.0408	2.9667	0.0607	3.0274	0.7945	0.0558	0.8503	0.0000	3,127.0361	3,127.0361	0.1568	0.0000	3,130.3278
Waste						0.0000	0.0000		0.0000	0.0000	44.1059	0.0000	44.1059	2.6066	0.0000	98.8441
Water						0.0000	0.0000		0.0000	0.0000	8.8815	55.1244	64.0060	0.0329	0.0198	70.8370
Total	**5.3536**	**5.7954**	**29.5741**	**0.0416**	**2.9667**	**0.0810**	**3.0478**	**0.7945**	**0.0762**	**0.8707**	**52.9874**	**3,855.1397**	**3,908.1271**	**2.8275**	**0.0272**	**3,975.9382**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.05**	**0.43**	**0.04**	**0.38**	**0.00**	**2.41**	**0.07**	**0.00**	**2.56**	**0.23**	**0.00**	**1.33**	**1.31**	**0.06**	**2.82**	**1.30**

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	Mass Grading	Grading	1/29/2015	3/18/2015	5	35	
3	Grading/Soil Hauling	Grading	3/19/2015	4/3/2015	5	12	
4	Building Construction	Building Construction	4/4/2015	9/2/2016	5	370	
5	Paving	Paving	9/3/2016	9/30/2016	5	20	
6	Architectural Coating	Architectural Coating	10/1/2016	10/28/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 873,958; Residential Outdoor: 291,319; Non-Residential Indoor: 113,850; Non-Residential Outdoor: 39,048

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
Mass Grading	Excavators	2	8.00	162	0.38
Mass Grading	Graders	1	8.00	174	0.41
Mass Grading	Rubber Tired Dozers	1	8.00	255	0.40
Mass Grading	Scrapers	2	8.00	361	0.48
Mass Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading/Soil Hauling	Excavators	2	8.00	162	0.38
Grading/Soil Hauling	Graders	1	8.00	174	0.41
Grading/Soil Hauling	Rubber Tired Dozers	1	8.00	255	0.40
Grading/Soil Hauling	Scrapers	2	8.00	361	0.48

Grading/Soil Hauling	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	16.00	0.00	44.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Mass Grading	8	20.00	0.00	68.00	12.30	4.60	30.00	LD_Mix	HDT_Mix	HHDT
Grading/Soil Hauling	8	20.00	0.00	1,668.00	12.30	4.60	35.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	248.00	48.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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					4.7700e-003	0.0000	4.7700e-003	7.2000e-004	0.0000	7.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0451	0.4836	0.3607	4.0000e-004		0.0245	0.0245		0.0229	0.0229	0.0000	37.4413	37.4413	0.0102	0.0000	37.6544
Total	**0.0451**	**0.4836**	**0.3607**	**4.0000e-004**	**4.7700e-003**	**0.0245**	**0.0293**	**7.2000e-004**	**0.0229**	**0.0236**	**0.0000**	**37.4413**	**37.4413**	**0.0102**	**0.0000**	**37.6544**

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	6.2000e-004	8.1200e-003	7.8800e-003	2.0000e-005	3.7000e-004	1.2000e-004	4.9000e-004	1.0000e-004	1.1000e-004	2.1000e-004	0.0000	1.4925	1.4925	1.0000e-005	0.0000	1.4928
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9000e-004	1.3300e-003	0.0114	2.0000e-005	1.4600e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2462	1.2462	8.0000e-005	0.0000	1.2480
Total	**1.4100e-003**	**9.4500e-003**	**0.0193**	**4.0000e-005**	**1.8300e-003**	**1.3000e-004**	**1.9700e-003**	**4.9000e-004**	**1.2000e-004**	**6.1000e-004**	**0.0000**	**2.7387**	**2.7387**	**9.0000e-005**	**0.0000**	**2.7408**

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					1.8600e-003	0.0000	1.8600e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0451	0.4836	0.3607	4.0000e-004		0.0245	0.0245		0.0229	0.0229	0.0000	37.4412	37.4412	0.0102	0.0000	37.6544
Total	**0.0451**	**0.4836**	**0.3607**	**4.0000e-004**	**1.8600e-003**	**0.0245**	**0.0264**	**2.8000e-004**	**0.0229**	**0.0231**	**0.0000**	**37.4412**	**37.4412**	**0.0102**	**0.0000**	**37.6544**

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	6.2000e-004	8.1200e-003	7.8800e-003	2.0000e-005	3.7000e-004	1.2000e-004	4.9000e-004	1.0000e-004	1.1000e-004	2.1000e-004	0.0000	1.4925	1.4925	1.0000e-005	0.0000	1.4928
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9000e-004	1.3300e-003	0.0114	2.0000e-005	1.4600e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2462	1.2462	8.0000e-005	0.0000	1.2480
Total	**1.4100e-003**	**9.4500e-003**	**0.0193**	**4.0000e-005**	**1.8300e-003**	**1.3000e-004**	**1.9700e-003**	**4.9000e-004**	**1.2000e-004**	**6.1000e-004**	**0.0000**	**2.7387**	**2.7387**	**9.0000e-005**	**0.0000**	**2.7408**

3.3 Mass 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					0.1518	0.0000	0.1518	0.0629	0.0000	0.0629	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1186	1.3833	0.8897	1.0800e-003		0.0665	0.0665		0.0612	0.0612	0.0000	102.9739	102.9739	0.0307	0.0000	103.6195
Total	**0.1186**	**1.3833**	**0.8897**	**1.0800e-003**	**0.1518**	**0.0665**	**0.2184**	**0.0629**	**0.0612**	**0.1242**	**0.0000**	**102.9739**	**102.9739**	**0.0307**	**0.0000**	**103.6195**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2000e-003	0.0184	0.0144	4.0000e-005	8.6000e-004	2.7000e-004	1.1400e-003	2.4000e-004	2.5000e-004	4.9000e-004	0.0000	3.4325	3.4325	3.0000e-005	0.0000	3.4331
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7400e-003	2.9100e-003	0.0250	3.0000e-005	3.2000e-003	3.0000e-005	3.2300e-003	8.5000e-004	2.0000e-005	8.8000e-004	0.0000	2.7261	2.7261	1.9000e-004	0.0000	2.7300
Total	**2.9400e-003**	**0.0213**	**0.0395**	**7.0000e-005**	**4.0600e-003**	**3.0000e-004**	**4.3700e-003**	**1.0900e-003**	**2.7000e-004**	**1.3700e-003**	**0.0000**	**6.1586**	**6.1586**	**2.2000e-004**	**0.0000**	**6.1631**

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					0.0592	0.0000	0.0592	0.0246	0.0000	0.0246	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1186	1.3833	0.8897	1.0800e-003		0.0665	0.0665		0.0612	0.0612	0.0000	102.9737	102.9737	0.0307	0.0000	103.6193
Total	**0.1186**	**1.3833**	**0.8897**	**1.0800e-003**	**0.0592**	**0.0665**	**0.1257**	**0.0246**	**0.0612**	**0.0858**	**0.0000**	**102.9737**	**102.9737**	**0.0307**	**0.0000**	**103.6193**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2000e-003	0.0184	0.0144	4.0000e-005	8.6000e-004	2.7000e-004	1.1400e-003	2.4000e-004	2.5000e-004	4.9000e-004	0.0000	3.4325	3.4325	3.0000e-005	0.0000	3.4331
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7400e-003	2.9100e-003	0.0250	3.0000e-005	3.2000e-003	3.0000e-005	3.2300e-003	8.5000e-004	2.0000e-005	8.8000e-004	0.0000	2.7261	2.7261	1.9000e-004	0.0000	2.7300
Total	**2.9400e-003**	**0.0213**	**0.0395**	**7.0000e-005**	**4.0600e-003**	**3.0000e-004**	**4.3700e-003**	**1.0900e-003**	**2.7000e-004**	**1.3700e-003**	**0.0000**	**6.1586**	**6.1586**	**2.2000e-004**	**0.0000**	**6.1631**

3.4 Grading/Soil Hauling - 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					0.0526	0.0000	0.0526	0.0217	0.0000	0.0217	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0407	0.4743	0.3050	3.7000e-004		0.0228	0.0228		0.0210	0.0210	0.0000	35.3053	35.3053	0.0105	0.0000	35.5267
Total	**0.0407**	**0.4743**	**0.3050**	**3.7000e-004**	**0.0526**	**0.0228**	**0.0754**	**0.0217**	**0.0210**	**0.0427**	**0.0000**	**35.3053**	**35.3053**	**0.0105**	**0.0000**	**35.5267**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0323	0.5230	0.3811	1.0600e-003	0.0247	7.7400e-003	0.0325	6.7800e-003	7.1200e-003	0.0139	0.0000	98.0048	98.0048	7.9000e-004	0.0000	98.0214
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	1.0000e-003	8.5800e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9347	0.9347	6.0000e-005	0.0000	0.9360
Total	**0.0329**	**0.5240**	**0.3897**	**1.0700e-003**	**0.0258**	**7.7500e-003**	**0.0336**	**7.0700e-003**	**7.1300e-003**	**0.0142**	**0.0000**	**98.9395**	**98.9395**	**8.5000e-004**	**0.0000**	**98.9574**

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					0.0205	0.0000	0.0205	8.4500e-003	0.0000	8.4500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0407	0.4743	0.3050	3.7000e-004		0.0228	0.0228		0.0210	0.0210	0.0000	35.3053	35.3053	0.0105	0.0000	35.5266
Total	**0.0407**	**0.4743**	**0.3050**	**3.7000e-004**	**0.0205**	**0.0228**	**0.0433**	**8.4500e-003**	**0.0210**	**0.0294**	**0.0000**	**35.3053**	**35.3053**	**0.0105**	**0.0000**	**35.5266**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0323	0.5230	0.3811	1.0600e-003	0.0247	7.7400e-003	0.0325	6.7800e-003	7.1200e-003	0.0139	0.0000	98.0048	98.0048	7.9000e-004	0.0000	98.0214
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	1.0000e-003	8.5800e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9347	0.9347	6.0000e-005	0.0000	0.9360
Total	**0.0329**	**0.5240**	**0.3897**	**1.0700e-003**	**0.0258**	**7.7500e-003**	**0.0336**	**7.0700e-003**	**7.1300e-003**	**0.0142**	**0.0000**	**98.9395**	**98.9395**	**8.5000e-004**	**0.0000**	**98.9574**

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	0.3549	2.9129	1.8182	2.6000e-003		0.2053	0.2053		0.1931	0.1931	0.0000	236.6745	236.6745	0.0594	0.0000	237.9215
Total	**0.3549**	**2.9129**	**1.8182**	**2.6000e-003**		**0.2053**	**0.2053**		**0.1931**	**0.1931**	**0.0000**	**236.6745**	**236.6745**	**0.0594**	**0.0000**	**237.9215**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0618	0.3996	0.7995	7.2000e-004	0.0190	5.9200e-003	0.0249	5.4200e-003	5.4400e-003	0.0109	0.0000	65.4946	65.4946	6.3000e-004	0.0000	65.5079
Worker	0.1193	0.1997	1.7201	2.4000e-003	0.2201	1.8500e-003	0.2219	0.0585	1.6700e-003	0.0601	0.0000	187.3705	187.3705	0.0127	0.0000	187.6377
Total	**0.1811**	**0.5993**	**2.5196**	**3.1200e-003**	**0.2391**	**7.7700e-003**	**0.2468**	**0.0639**	**7.1100e-003**	**0.0710**	**0.0000**	**252.8651**	**252.8651**	**0.0134**	**0.0000**	**253.1456**

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	0.3549	2.9129	1.8182	2.6000e-003		0.2053	0.2053		0.1931	0.1931	0.0000	236.6742	236.6742	0.0594	0.0000	237.9212
Total	**0.3549**	**2.9129**	**1.8182**	**2.6000e-003**		**0.2053**	**0.2053**		**0.1931**	**0.1931**	**0.0000**	**236.6742**	**236.6742**	**0.0594**	**0.0000**	**237.9212**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0618	0.3996	0.7995	7.2000e-004	0.0190	5.9200e-003	0.0249	5.4200e-003	5.4400e-003	0.0109	0.0000	65.4946	65.4946	6.3000e-004	0.0000	65.5079
Worker	0.1193	0.1997	1.7201	2.4000e-003	0.2201	1.8500e-003	0.2219	0.0585	1.6700e-003	0.0601	0.0000	187.3705	187.3705	0.0127	0.0000	187.6377
Total	**0.1811**	**0.5993**	**2.5196**	**3.1200e-003**	**0.2391**	**7.7700e-003**	**0.2468**	**0.0639**	**7.1100e-003**	**0.0710**	**0.0000**	**252.8651**	**252.8651**	**0.0134**	**0.0000**	**253.1456**

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	0.2998	2.5086	1.6286	2.3600e-003		0.1731	0.1731		0.1627	0.1627	0.0000	213.0952	213.0952	0.0529	0.0000	214.2050
Total	**0.2998**	**2.5086**	**1.6286**	**2.3600e-003**		**0.1731**	**0.1731**		**0.1627**	**0.1627**	**0.0000**	**213.0952**	**213.0952**	**0.0529**	**0.0000**	**214.2050**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0487	0.3199	0.6684	6.5000e-004	0.0172	4.2500e-003	0.0215	4.9200e-003	3.9100e-003	8.8200e-003	0.0000	58.7798	58.7798	5.0000e-004	0.0000	58.7903
Worker	0.0926	0.1589	1.3546	2.1700e-003	0.1997	1.5500e-003	0.2012	0.0530	1.4100e-003	0.0545	0.0000	163.9428	163.9428	0.0103	0.0000	164.1585
Total	**0.1413**	**0.4789**	**2.0230**	**2.8200e-003**	**0.2169**	**5.8000e-003**	**0.2227**	**0.0580**	**5.3200e-003**	**0.0633**	**0.0000**	**222.7226**	**222.7226**	**0.0108**	**0.0000**	**222.9488**

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	0.2998	2.5086	1.6286	2.3600e-003		0.1731	0.1731		0.1627	0.1627	0.0000	213.0949	213.0949	0.0529	0.0000	214.2048
Total	**0.2998**	**2.5086**	**1.6286**	**2.3600e-003**		**0.1731**	**0.1731**		**0.1627**	**0.1627**	**0.0000**	**213.0949**	**213.0949**	**0.0529**	**0.0000**	**214.2048**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0487	0.3199	0.6684	6.5000e-004	0.0172	4.2500e-003	0.0215	4.9200e-003	3.9100e-003	8.8200e-003	0.0000	58.7798	58.7798	5.0000e-004	0.0000	58.7903
Worker	0.0926	0.1589	1.3546	2.1700e-003	0.1997	1.5500e-003	0.2012	0.0530	1.4100e-003	0.0545	0.0000	163.9428	163.9428	0.0103	0.0000	164.1585
Total	**0.1413**	**0.4789**	**2.0230**	**2.8200e-003**	**0.2169**	**5.8000e-003**	**0.2227**	**0.0580**	**5.3200e-003**	**0.0633**	**0.0000**	**222.7226**	**222.7226**	**0.0108**	**0.0000**	**222.9488**

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	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0209**	**0.2239**	**0.1482**	**2.2000e-004**		**0.0126**	**0.0126**		**0.0116**	**0.0116**	**0.0000**	**21.0138**	**21.0138**	**6.3400e-003**	**0.0000**	**21.1469**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	1.1700e-003	9.9300e-003	2.0000e-005	1.4600e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2019	1.2019	8.0000e-005	0.0000	1.2035
Total	**6.8000e-004**	**1.1700e-003**	**9.9300e-003**	**2.0000e-005**	**1.4600e-003**	**1.0000e-005**	**1.4800e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2019**	**1.2019**	**8.0000e-005**	**0.0000**	**1.2035**

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	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0209**	**0.2239**	**0.1482**	**2.2000e-004**		**0.0126**	**0.0126**		**0.0116**	**0.0116**	**0.0000**	**21.0138**	**21.0138**	**6.3400e-003**	**0.0000**	**21.1469**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	1.1700e-003	9.9300e-003	2.0000e-005	1.4600e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2019	1.2019	8.0000e-005	0.0000	1.2035
Total	**6.8000e-004**	**1.1700e-003**	**9.9300e-003**	**2.0000e-005**	**1.4600e-003**	**1.0000e-005**	**1.4800e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2019**	**1.2019**	**8.0000e-005**	**0.0000**	**1.2035**

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	3.0549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.0000	2.5533	2.5533	3.0000e-004	0.0000	2.5596
Total	**3.0586**	**0.0237**	**0.0188**	**3.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**2.5533**	**2.5533**	**3.0000e-004**	**0.0000**	**2.5596**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1200e-003	3.6400e-003	0.0310	5.0000e-005	4.5700e-003	4.0000e-005	4.6100e-003	1.2200e-003	3.0000e-005	1.2500e-003	0.0000	3.7560	3.7560	2.4000e-004	0.0000	3.7610
Total	**2.1200e-003**	**3.6400e-003**	**0.0310**	**5.0000e-005**	**4.5700e-003**	**4.0000e-005**	**4.6100e-003**	**1.2200e-003**	**3.0000e-005**	**1.2500e-003**	**0.0000**	**3.7560**	**3.7560**	**2.4000e-004**	**0.0000**	**3.7610**

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	3.0549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.0000	2.5533	2.5533	3.0000e-004	0.0000	2.5596
Total	**3.0586**	**0.0237**	**0.0188**	**3.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**2.5533**	**2.5533**	**3.0000e-004**	**0.0000**	**2.5596**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1200e-003	3.6400e-003	0.0310	5.0000e-005	4.5700e-003	4.0000e-005	4.6100e-003	1.2200e-003	3.0000e-005	1.2500e-003	0.0000	3.7560	3.7560	2.4000e-004	0.0000	3.7610
Total	**2.1200e-003**	**3.6400e-003**	**0.0310**	**5.0000e-005**	**4.5700e-003**	**4.0000e-005**	**4.6100e-003**	**1.2200e-003**	**3.0000e-005**	**1.2500e-003**	**0.0000**	**3.7560**	**3.7560**	**2.4000e-004**	**0.0000**	**3.7610**

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					
Unmitigated	2.9129	5.6678	27.2850	0.0408	2.9667	0.0607	3.0274	0.7945	0.0558	0.8503	0.0000	3,127.0361	3,127.0361	0.1568	0.0000	3,130.3278

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,255.80	1,255.80	1255.80	3,464,917	3,464,917
City Park	0.00	0.00	0.00		
Regional Shopping Center	3,630.30	3,630.30	3630.30	4,396,506	4,396,506
Total	4,886.10	4,886.10	4,886.10	7,861,423	7,861,423

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.30	5.90	6.40	37.50	15.00	47.50	86	11	3
City Park	8.80	4.60	4.60	33.00	48.00	19.00	66	28	6
Regional Shopping Center	8.80	4.60	4.60	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.488515	0.036101	0.211699	0.155053	0.049887	0.007463	0.020047	0.014289	0.001917	0.002185	0.008106	0.001606	0.003132

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	552.3512	552.3512	0.0254	5.2500e-003	554.5129
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	575.6800	575.6800	0.0265	5.4700e-003	577.9329
NaturalGas Mitigated	0.0118	0.1014	0.0459	6.4000e-004		8.1700e-003	8.1700e-003		8.1700e-003	8.1700e-003	0.0000	117.0001	117.0001	2.2400e-003	2.1500e-003	117.7122
NaturalGas Unmitigated	0.0147	0.1263	0.0569	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.7430	145.7430	2.7900e-003	2.6700e-003	146.6300

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	155595	8.4000e-004	7.6300e-003	6.4100e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.3031	8.3031	1.6000e-004	1.5000e-004	8.3537
Apartments Mid Rise	2.57553e+006	0.0139	0.1187	0.0505	7.6000e-004		9.6000e-003	9.6000e-003		9.6000e-003	9.6000e-003	0.0000	137.4399	137.4399	2.6300e-003	2.5200e-003	138.2763
Total		**0.0147**	**0.1263**	**0.0569**	**8.1000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**145.7430**	**145.7430**	**2.7900e-003**	**2.6700e-003**	**146.6300**

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					
Regional Shopping Center	136620	7.4000e-004	6.7000e-003	5.6300e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	7.2906	7.2906	1.4000e-004	1.3000e-004	7.3349
Apartments Mid Rise	2.05588e+006	0.0111	0.0947	0.0403	6.0000e-004		7.6600e-003	7.6600e-003		7.6600e-003	7.6600e-003	0.0000	109.7095	109.7095	2.1000e-003	2.0100e-003	110.3772
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0118**	**0.1014**	**0.0459**	**6.4000e-004**		**8.1700e-003**	**8.1700e-003**		**8.1700e-003**	**8.1700e-003**	**0.0000**	**117.0001**	**117.0001**	**2.2400e-003**	**2.1400e-003**	**117.7121**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.04017e+006	297.6631	0.0137	2.8300e-003	298.8280
City Park	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	971520	278.0169	0.0128	2.6400e-003	279.1049
Total		**575.6800**	**0.0265**	**5.4700e-003**	**577.9329**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.02658e+006	293.7738	0.0135	2.7900e-003	294.9235
City Park	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	903590	258.5774	0.0119	2.4600e-003	259.5893
Total		**552.3512**	**0.0254**	**5.2500e-003**	**554.5128**

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					
Unmitigated	2.4288	0.0262	2.2432	1.2000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	3.6279	3.6279	3.6400e-003	0.0000	3.7044

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	0.3055					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0534					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0699	0.0262	2.2432	1.2000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	3.6279	3.6279	3.6400e-003	0.0000	3.7044
Total	**2.4288**	**0.0262**	**2.2432**	**1.2000e-004**		**0.0122**	**0.0122**		**0.0122**	**0.0122**	**0.0000**	**3.6279**	**3.6279**	**3.6400e-003**	**0.0000**	**3.7044**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	64.0060	0.0331	0.0198	70.8511

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	19.4811 / 12.2815	49.3588	0.0257	0.0154	54.6697
City Park	0 / 0.500422	0.5012	2.0000e-005	0.0000	0.5032
Regional Shopping Center	5.6221 / 3.44581	14.1459	7.4100e-003	4.4400e-003	15.6782
Total		**64.0060**	**0.0331**	**0.0198**	**70.8511**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	44.1059	2.6066	0.0000	98.8441

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	137.54	27.9194	1.6500	0.0000	62.5691
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0182
Regional Shopping Center	79.7	16.1784	0.9561	0.0000	36.2568
Total		**44.1059**	**2.6066**	**0.0000**	**98.8441**

Westar - Amended Project

Santa Barbara-South of Santa Ynez Range County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.42	Acre	0.42	18,295.20	0
Apartments Mid Rise	299.00	Dwelling Unit	14.99	431,584.00	813
Regional Shopping Center	75.90	1000sqft	8.15	75,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Westar Final Phase. Santa Barbara County (South Central Coast Air Basin).

Land Use - Original project includes development of 299 apartment dwelling units, 75,900 square feet in retail, and 0.42 acre for parks on 23.56 acres.

Construction Phase - Soil hauling for triangle site would occur over 12 days, default phasing assumed for

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Construction equipment based on previous analysis.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Trips and VMT - Rounded trips to even amount. 834 trucks used during soil hauling of triangle site and a 35-mile per one-way trip for soil hauling. 30-mile haul length for the original project.

Demolition - Demolition of 9,546 square feet of building material.

Grading - 300 cubic yards exported during mass grading of project site. 7,500 cubic yards of soil exported at triangle site.

Architectural Coating - Comply with SBCAPCD's Rule 323.

Vehicle Trips - Trip rates updated based on traffic analysis.

Consumer Products - Calculated consumer product emissions in separate spreadsheet.

Area Coating - Comply with SBCAPCD's Rule 323.

Construction Off-road Equipment Mitigation - Water exposed surface areas three times daily for a 61% reduction in fugitive dust emissions.

Energy Mitigation - Exceed Title 24 by 25%.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	47,098.00	39,048.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	141,293.00	113,850.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblAreaCoating	Area_Nonresidential_Exterior	47098	39048
tblAreaCoating	Area_Nonresidential_Interior	141293	113850
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	250
tblConstructionPhase	NumDays	35.00	12.00
tblGrading	MaterialExported	0.00	300.00
tblGrading	MaterialExported	0.00	7,500.00
tblLandUse	LandUseSquareFeet	299,000.00	431,584.00
tblLandUse	LotAcreage	7.87	14.99
tblLandUse	LotAcreage	1.74	8.15
tblProjectCharacteristics	OperationalYear	2014	2017

tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripNumber	43.00	44.00
tblTripsAndVMT	HaulingTripNumber	38.00	68.00
tblTripsAndVMT	HaulingTripNumber	938.00	1,668.00
tblTripsAndVMT	VendorTripNumber	47.00	48.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	247.00	248.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	49.00	50.00
tblVehicleTrips	ST_TR	7.16	4.20
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	49.97	47.83
tblVehicleTrips	SU_TR	6.07	4.20
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	25.24	47.83
tblVehicleTrips	WD_TR	6.59	4.20
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	42.94	47.83

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	11.9367	163.1081	109.1481	0.2410	13.1582	5.0917	18.2499	4.8093	4.6840	9.4933	0.0000	24,677.4490	24,677.4490	2.0922	0.0000	24,721.3853
2016	306.0618	33.6474	39.6473	0.0595	2.5194	2.0329	4.5523	0.6721	1.9085	2.5806	0.0000	5,508.4464	5,508.4464	0.7969	0.0000	5,525.1812
Total	**317.9984**	**196.7555**	**148.7955**	**0.3004**	**15.6776**	**7.1245**	**22.8022**	**5.4814**	**6.5925**	**12.0739**	**0.0000**	**30,185.8954**	**30,185.8954**	**2.8891**	**0.0000**	**30,246.5665**

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	11.9367	163.1081	109.1481	0.2410	7.8112	5.0917	12.9029	2.6069	4.6840	7.2909	0.0000	24,677.4490	24,677.4490	2.0922	0.0000	24,721.3853
2016	306.0618	33.6474	39.6473	0.0595	2.5194	2.0329	4.5523	0.6721	1.9085	2.5806	0.0000	5,508.4464	5,508.4464	0.7969	0.0000	5,525.1812
Total	**317.9984**	**196.7555**	**148.7955**	**0.3004**	**10.3306**	**7.1245**	**17.4552**	**3.2790**	**6.5925**	**9.8715**	**0.0000**	**30,185.8954**	**30,185.8954**	**2.8891**	**0.0000**	**30,246.5665**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**34.11**	**0.00**	**23.45**	**40.18**	**0.00**	**18.24**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	13.7021	0.2905	24.9243	1.3000e-003		0.1353	0.1353		0.1353	0.1353	0.0000	44.4339	44.4339	0.0446	0.0000	45.3710
Energy	0.0807	0.6921	0.3118	4.4000e-003		0.0558	0.0558		0.0558	0.0558		880.2969	880.2969	0.0169	0.0161	885.6543
Mobile	15.4081	29.2192	136.9381	0.2282	16.6625	0.3325	16.9950	4.4543	0.3058	4.7601		19,277.7980	19,277.7980	0.9502		19,297.7513
Total	**29.1909**	**30.2018**	**162.1742**	**0.2339**	**16.6625**	**0.5236**	**17.1861**	**4.4543**	**0.4969**	**4.9512**	**0.0000**	**20,202.5288**	**20,202.5288**	**1.0117**	**0.0161**	**20,228.7766**

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	13.7021	0.2905	24.9243	1.3000e-003		0.1353	0.1353		0.1353	0.1353	0.0000	44.4339	44.4339	0.0446	0.0000	45.3710
Energy	0.0648	0.5558	0.2517	3.5300e-003		0.0448	0.0448		0.0448	0.0448		706.6879	706.6879	0.0135	0.0130	710.9887
Mobile	15.4081	29.2192	136.9381	0.2282	16.6625	0.3325	16.9950	4.4543	0.3058	4.7601		19,277.7980	19,277.7980	0.9502		19,297.7513
Total	**29.1750**	**30.0655**	**162.1141**	**0.2331**	**16.6625**	**0.5126**	**17.1751**	**4.4543**	**0.4859**	**4.9402**	**0.0000**	**20,028.9197**	**20,028.9197**	**1.0083**	**0.0130**	**20,054.1110**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.05**	**0.45**	**0.04**	**0.37**	**0.00**	**2.10**	**0.06**	**0.00**	**2.21**	**0.22**	**0.00**	**0.86**	**0.86**	**0.33**	**19.70**	**0.86**

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	Mass Grading	Grading	1/29/2015	3/18/2015	5	35	
3	Grading/Soil Hauling	Grading	3/19/2015	4/3/2015	5	12	
4	Building Construction	Building Construction	4/4/2015	9/2/2016	5	370	
5	Paving	Paving	9/3/2016	9/30/2016	5	20	
6	Architectural Coating	Architectural Coating	10/1/2016	10/28/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 873,958; Residential Outdoor: 291,319; Non-Residential Indoor: 113,850; Non-Residential Outdoor: 39,048

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
Mass Grading	Excavators	2	8.00	162	0.38
Mass Grading	Graders	1	8.00	174	0.41
Mass Grading	Rubber Tired Dozers	1	8.00	255	0.40
Mass Grading	Scrapers	2	8.00	361	0.48
Mass Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading/Soil Hauling	Excavators	2	8.00	162	0.38
Grading/Soil Hauling	Graders	1	8.00	174	0.41
Grading/Soil Hauling	Rubber Tired Dozers	1	8.00	255	0.40
Grading/Soil Hauling	Scrapers	2	8.00	361	0.48
Grading/Soil Hauling	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	16.00	0.00	44.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Mass Grading	8	20.00	0.00	68.00	12.30	4.60	30.00	LD_Mix	HDT_Mix	HHDT
Grading/Soil Hauling	8	20.00	0.00	1,668.00	12.30	4.60	35.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	248.00	48.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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					0.4772	0.0000	0.4772	0.0723	0.0000	0.0723			0.0000			0.0000
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858		4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**4.5083**	**48.3629**	**36.0738**	**0.0399**	**0.4772**	**2.4508**	**2.9280**	**0.0723**	**2.2858**	**2.3580**		**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

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	0.0569	0.7822	0.6832	1.6200e-003	0.0381	0.0117	0.0498	0.0104	0.0108	0.0212		164.6856	164.6856	1.3600e-003		164.7141
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0768	0.1184	1.1120	1.6300e-003	0.1497	1.2300e-003	0.1509	0.0397	1.1100e-003	0.0408		140.4152	140.4152	9.3300e-003		140.6112
Total	**0.1337**	**0.9006**	**1.7952**	**3.2500e-003**	**0.1877**	**0.0130**	**0.2007**	**0.0501**	**0.0119**	**0.0620**		**305.1008**	**305.1008**	**0.0107**		**305.3252**

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					0.1861	0.0000	0.1861	0.0282	0.0000	0.0282			0.0000			0.0000
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858	0.0000	4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**4.5083**	**48.3629**	**36.0738**	**0.0399**	**0.1861**	**2.4508**	**2.6369**	**0.0282**	**2.2858**	**2.3140**	**0.0000**	**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

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	0.0569	0.7822	0.6832	1.6200e-003	0.0381	0.0117	0.0498	0.0104	0.0108	0.0212		164.6856	164.6856	1.3600e-003		164.7141
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0768	0.1184	1.1120	1.6300e-003	0.1497	1.2300e-003	0.1509	0.0397	1.1100e-003	0.0408		140.4152	140.4152	9.3300e-003		140.6112
Total	**0.1337**	**0.9006**	**1.7952**	**3.2500e-003**	**0.1877**	**0.0130**	**0.2007**	**0.0501**	**0.0119**	**0.0620**		**305.1008**	**305.1008**	**0.0107**		**305.3252**

3.3 Mass 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					8.6746	0.0000	8.6746	3.5967	0.0000	3.5967			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**8.6746**	**3.8022**	**12.4768**	**3.5967**	**3.4980**	**7.0947**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0640	1.0122	0.7315	2.1300e-003	0.0504	0.0155	0.0659	0.0138	0.0142	0.0280		216.3537	216.3537	1.7400e-003		216.3903
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.1480	1.3900	2.0400e-003	0.1871	1.5400e-003	0.1886	0.0496	1.3900e-003	0.0510		175.5190	175.5190	0.0117		175.7640
Total	**0.1600**	**1.1602**	**2.1215**	**4.1700e-003**	**0.2375**	**0.0170**	**0.2545**	**0.0634**	**0.0156**	**0.0790**		**391.8727**	**391.8727**	**0.0134**		**392.1543**

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					3.3831	0.0000	3.3831	1.4027	0.0000	1.4027			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**3.3831**	**3.8022**	**7.1853**	**1.4027**	**3.4980**	**4.9007**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

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	0.0640	1.0122	0.7315	2.1300e-003	0.0504	0.0155	0.0659	0.0138	0.0142	0.0280		216.3537	216.3537	1.7400e-003		216.3903
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.1480	1.3900	2.0400e-003	0.1871	1.5400e-003	0.1886	0.0496	1.3900e-003	0.0510		175.5190	175.5190	0.0117		175.7640
Total	**0.1600**	**1.1602**	**2.1215**	**4.1700e-003**	**0.2375**	**0.0170**	**0.2545**	**0.0634**	**0.0156**	**0.0790**		**391.8727**	**391.8727**	**0.0134**		**392.1543**

3.4 Grading/Soil Hauling - 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					8.7656	0.0000	8.7656	3.6105	0.0000	3.6105			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**8.7656**	**3.8022**	**12.5678**	**3.6105**	**3.4980**	**7.1085**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.0656	83.9134	56.9182	0.1772	4.2055	1.2879	5.4935	1.1492	1.1846	2.3338		18,015.6866	18,015.6866	0.1441		18,018.7134
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.1480	1.3900	2.0400e-003	0.1871	1.5400e-003	0.1886	0.0496	1.3900e-003	0.0510		175.5190	175.5190	0.0117		175.7640
Total	**5.1616**	**84.0614**	**58.3082**	**0.1792**	**4.3926**	**1.2895**	**5.6821**	**1.1988**	**1.1860**	**2.3848**		**18,191.2057**	**18,191.2057**	**0.1558**		**18,194.4773**

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					3.4186	0.0000	3.4186	1.4081	0.0000	1.4081			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**3.4186**	**3.8022**	**7.2208**	**1.4081**	**3.4980**	**4.9061**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

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	5.0656	83.9134	56.9182	0.1772	4.2055	1.2879	5.4935	1.1492	1.1846	2.3338		18,015.6866	18,015.6866	0.1441		18,018.7134
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.1480	1.3900	2.0400e-003	0.1871	1.5400e-003	0.1886	0.0496	1.3900e-003	0.0510		175.5190	175.5190	0.0117		175.7640
Total	**5.1616**	**84.0614**	**58.3082**	**0.1792**	**4.3926**	**1.2895**	**5.6821**	**1.1988**	**1.1860**	**2.3848**		**18,191.2057**	**18,191.2057**	**0.1558**		**18,194.4773**

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		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5596	4.0004	6.6991	7.4400e-003	0.1995	0.0605	0.2600	0.0568	0.0556	0.1124		747.9785	747.9785	7.1000e-003		748.1276
Worker	1.1904	1.8349	17.2360	0.0253	2.3199	0.0191	2.3390	0.6153	0.0173	0.6326		2,176.4359	2,176.4359	0.1446		2,179.4730
Total	**1.7500**	**5.8353**	**23.9350**	**0.0327**	**2.5194**	**0.0796**	**2.5990**	**0.6721**	**0.0729**	**0.7450**		**2,924.4144**	**2,924.4144**	**0.1517**		**2,927.6006**

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	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5596	4.0004	6.6991	7.4400e-003	0.1995	0.0605	0.2600	0.0568	0.0556	0.1124		747.9785	747.9785	7.1000e-003		748.1276
Worker	1.1904	1.8349	17.2360	0.0253	2.3199	0.0191	2.3390	0.6153	0.0173	0.6326		2,176.4359	2,176.4359	0.1446		2,179.4730
Total	**1.7500**	**5.8353**	**23.9350**	**0.0327**	**2.5194**	**0.0796**	**2.5990**	**0.6721**	**0.0729**	**0.7450**		**2,924.4144**	**2,924.4144**	**0.1517**		**2,927.6006**

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		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4869	3.5316	6.1055	7.4300e-003	0.1995	0.0479	0.2474	0.0568	0.0440	0.1008		739.9670	739.9670	6.1700e-003		740.0966
Worker	1.0230	1.6095	15.0352	0.0252	2.3199	0.0176	2.3375	0.6153	0.0160	0.6313		2,099.1930	2,099.1930	0.1287		2,101.8955
Total	**1.5099**	**5.1411**	**21.1407**	**0.0327**	**2.5194**	**0.0655**	**2.5849**	**0.6721**	**0.0600**	**0.7321**		**2,839.1600**	**2,839.1600**	**0.1349**		**2,841.9922**

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	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4869	3.5316	6.1055	7.4300e-003	0.1995	0.0479	0.2474	0.0568	0.0440	0.1008		739.9670	739.9670	6.1700e-003		740.0966
Worker	1.0230	1.6095	15.0352	0.0252	2.3199	0.0176	2.3375	0.6153	0.0160	0.6313		2,099.1930	2,099.1930	0.1287		2,101.8955
Total	**1.5099**	**5.1411**	**21.1407**	**0.0327**	**2.5194**	**0.0655**	**2.5849**	**0.6721**	**0.0600**	**0.7321**		**2,839.1600**	**2,839.1600**	**0.1349**		**2,841.9922**

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		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0660	0.1038	0.9700	1.6300e-003	0.1497	1.1300e-003	0.1508	0.0397	1.0300e-003	0.0407		135.4318	135.4318	8.3000e-003		135.6062
Total	**0.0660**	**0.1038**	**0.9700**	**1.6300e-003**	**0.1497**	**1.1300e-003**	**0.1508**	**0.0397**	**1.0300e-003**	**0.0407**		**135.4318**	**135.4318**	**8.3000e-003**		**135.6062**

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	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0660	0.1038	0.9700	1.6300e-003	0.1497	1.1300e-003	0.1508	0.0397	1.0300e-003	0.0407		135.4318	135.4318	8.3000e-003		135.6062
Total	**0.0660**	**0.1038**	**0.9700**	**1.6300e-003**	**0.1497**	**1.1300e-003**	**0.1508**	**0.0397**	**1.0300e-003**	**0.0407**		**135.4318**	**135.4318**	**8.3000e-003**		**135.6062**

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	305.4871					0.0000	0.0000		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		281.4481	281.4481	0.0332		282.1449
Total	**305.8555**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2062	0.3245	3.0313	5.0900e-003	0.4677	3.5400e-003	0.4713	0.1241	3.2300e-003	0.1273		423.2244	423.2244	0.0260		423.7693
Total	**0.2062**	**0.3245**	**3.0313**	**5.0900e-003**	**0.4677**	**3.5400e-003**	**0.4713**	**0.1241**	**3.2300e-003**	**0.1273**		**423.2244**	**423.2244**	**0.0260**		**423.7693**

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	305.4871					0.0000	0.0000		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	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**305.8555**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2062	0.3245	3.0313	5.0900e-003	0.4677	3.5400e-003	0.4713	0.1241	3.2300e-003	0.1273		423.2244	423.2244	0.0260		423.7693
Total	**0.2062**	**0.3245**	**3.0313**	**5.0900e-003**	**0.4677**	**3.5400e-003**	**0.4713**	**0.1241**	**3.2300e-003**	**0.1273**		**423.2244**	**423.2244**	**0.0260**		**423.7693**

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					
Unmitigated	15.4081	29.2192	136.9381	0.2282	16.6625	0.3325	16.9950	4.4543	0.3058	4.7601		19,277.7980	19,277.7980	0.9502		19,297.7513

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,255.80	1,255.80	1255.80	3,464,917	3,464,917
City Park	0.00	0.00	0.00		
Regional Shopping Center	3,630.30	3,630.30	3630.30	4,396,506	4,396,506
Total	4,886.10	4,886.10	4,886.10	7,861,423	7,861,423

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.30	5.90	6.40	37.50	15.00	47.50	86	11	3
City Park	8.80	4.60	4.60	33.00	48.00	19.00	66	28	6
Regional Shopping Center	8.80	4.60	4.60	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.488515	0.036101	0.211699	0.155053	0.049887	0.007463	0.020047	0.014289	0.001917	0.002185	0.008106	0.001606	0.003132

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0648	0.5558	0.2517	3.5300e-003		0.0448	0.0448		0.0448	0.0448		706.6879	706.6879	0.0135	0.0130	710.9887
NaturalGas Unmitigated	0.0807	0.6921	0.3118	4.4000e-003		0.0558	0.0558		0.0558	0.0558		880.2969	880.2969	0.0169	0.0161	885.6543

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	426.288	4.6000e-003	0.0418	0.0351	2.5000e-004		3.1800e-003	3.1800e-003		3.1800e-003	3.1800e-003		50.1515	50.1515	9.6000e-004	9.2000e-004	50.4567
Apartments Mid Rise	7056.24	0.0761	0.6503	0.2767	4.1500e-003		0.0526	0.0526		0.0526	0.0526		830.1454	830.1454	0.0159	0.0152	835.1976
Total		**0.0807**	**0.6921**	**0.3118**	**4.4000e-003**		**0.0558**	**0.0558**		**0.0558**	**0.0558**		**880.2969**	**880.2969**	**0.0169**	**0.0161**	**885.6543**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Regional Shopping Center	0.374301	4.0400e-003	0.0367	0.0308	2.2000e-004		2.7900e-003	2.7900e-003		2.7900e-003	2.7900e-003		44.0355	44.0355	8.4000e-004	8.1000e-004	44.3035
Apartments Mid Rise	5.63255	0.0607	0.5191	0.2209	3.3100e-003		0.0420	0.0420		0.0420	0.0420		662.6524	662.6524	0.0127	0.0122	666.6852
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0648**	**0.5558**	**0.2517**	**3.5300e-003**		**0.0448**	**0.0448**		**0.0448**	**0.0448**		**706.6879**	**706.6879**	**0.0135**	**0.0130**	**710.9887**

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					
Unmitigated	13.7021	0.2905	24.9243	1.3000e-003		0.1353	0.1353		0.1353	0.1353	0.0000	44.4339	44.4339	0.0446	0.0000	45.3710

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	1.6739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.2517					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.7766	0.2905	24.9243	1.3000e-003		0.1353	0.1353		0.1353	0.1353		44.4339	44.4339	0.0446		45.3710
Total	**13.7021**	**0.2905**	**24.9243**	**1.3000e-003**		**0.1353**	**0.1353**		**0.1353**	**0.1353**	**0.0000**	**44.4339**	**44.4339**	**0.0446**	**0.0000**	**45.3710**

Westar - Amended Project

Santa Barbara-South of Santa Ynez Range County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.42	Acre	0.42	18,295.20	0
Apartments Mid Rise	299.00	Dwelling Unit	14.99	431,584.00	813
Regional Shopping Center	75.90	1000sqft	8.15	75,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Westar Final Phase. Santa Barbara County (South Central Coast Air Basin).

Land Use - Original project includes development of 299 apartment dwelling units, 75,900 square feet in retail, and 0.42 acre for parks on 23.56 acres.

Construction Phase - Soil hauling for triangle site would occur over 12 days, default phasing assumed for

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Construction equipment based on previous analysis.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Trips and VMT - Rounded trips to even amount. 834 trucks used during soil hauling of triangle site and a 35-mile per one-way trip for soil hauling. 30-mile haul length for the original project.

Demolition - Demolition of 9,546 square feet of building material.

Grading - 300 cubic yards exported during mass grading of project site. 7,500 cubic yards of soil exported at triangle site.

Architectural Coating - Comply with SBCAPCD's Rule 323.

Vehicle Trips - Trip rates updated based on traffic analysis.

Consumer Products - Calculated consumer product emissions in separate spreadsheet.

Area Coating - Comply with SBCAPCD's Rule 323.

Construction Off-road Equipment Mitigation - Water exposed surface areas three times daily for a 61% reduction in fugitive dust emissions.

Energy Mitigation - Exceed Title 24 by 25%.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	47,098.00	39,048.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	141,293.00	113,850.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblAreaCoating	Area_Nonresidential_Exterior	47098	39048
tblAreaCoating	Area_Nonresidential_Interior	141293	113850
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	250
tblConstructionPhase	NumDays	35.00	12.00
tblGrading	MaterialExported	0.00	300.00
tblGrading	MaterialExported	0.00	7,500.00
tblLandUse	LandUseSquareFeet	299,000.00	431,584.00
tblLandUse	LotAcreage	7.87	14.99
tblLandUse	LotAcreage	1.74	8.15
tblProjectCharacteristics	OperationalYear	2014	2017

tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripNumber	43.00	44.00
tblTripsAndVMT	HaulingTripNumber	38.00	68.00
tblTripsAndVMT	HaulingTripNumber	938.00	1,668.00
tblTripsAndVMT	VendorTripNumber	47.00	48.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	247.00	248.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	49.00	50.00
tblVehicleTrips	ST_TR	7.16	4.20
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	49.97	47.83
tblVehicleTrips	SU_TR	6.07	4.20
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	25.24	47.83
tblVehicleTrips	WD_TR	6.59	4.20
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	42.94	47.83

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	12.5269	165.2688	120.4139	0.2409	13.1582	5.0952	18.2534	4.8093	4.6873	9.4966	0.0000	24,648.6943	24,648.6943	2.0933	0.0000	24,692.6529
2016	306.0816	33.9285	43.0144	0.0589	2.5194	2.0338	4.5532	0.6721	1.9094	2.5814	0.0000	5,451.2750	5,451.2750	0.7971	0.0000	5,468.0145
Total	**318.6084**	**199.1973**	**163.4283**	**0.2997**	**15.6776**	**7.1290**	**22.8066**	**5.4814**	**6.5966**	**12.0780**	**0.0000**	**30,099.9692**	**30,099.9692**	**2.8904**	**0.0000**	**30,160.6673**

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	12.5269	165.2688	120.4139	0.2409	7.8112	5.0952	12.9064	2.6069	4.6873	7.2942	0.0000	24,648.6943	24,648.6943	2.0933	0.0000	24,692.6529
2016	306.0816	33.9285	43.0144	0.0589	2.5194	2.0338	4.5532	0.6721	1.9094	2.5814	0.0000	5,451.2750	5,451.2750	0.7971	0.0000	5,468.0145
Total	**318.6084**	**199.1973**	**163.4283**	**0.2997**	**10.3306**	**7.1290**	**17.4596**	**3.2790**	**6.5966**	**9.8756**	**0.0000**	**30,099.9692**	**30,099.9692**	**2.8904**	**0.0000**	**30,160.6673**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**34.11**	**0.00**	**23.44**	**40.18**	**0.00**	**18.23**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	13.7021	0.2905	24.9243	1.3000e-003		0.1353	0.1353		0.1353	0.1353	0.0000	44.4339	44.4339	0.0446	0.0000	45.3710
Energy	0.0807	0.6921	0.3118	4.4000e-003		0.0558	0.0558		0.0558	0.0558		880.2969	880.2969	0.0169	0.0161	885.6543
Mobile	17.1295	31.2507	160.0926	0.2243	16.6625	0.3357	16.9981	4.4543	0.3087	4.7630		18,923.9255	18,923.9255	0.9510		18,943.8955
Total	**30.9123**	**32.2333**	**185.3287**	**0.2300**	**16.6625**	**0.5267**	**17.1892**	**4.4543**	**0.4998**	**4.9540**	**0.0000**	**19,848.6563**	**19,848.6563**	**1.0125**	**0.0161**	**19,874.9208**

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	13.7021	0.2905	24.9243	1.3000e-003		0.1353	0.1353		0.1353	0.1353	0.0000	44.4339	44.4339	0.0446	0.0000	45.3710
Energy	0.0648	0.5558	0.2517	3.5300e-003		0.0448	0.0448		0.0448	0.0448		706.6879	706.6879	0.0135	0.0130	710.9887
Mobile	17.1295	31.2507	160.0926	0.2243	16.6625	0.3357	16.9981	4.4543	0.3087	4.7630		18,923.9255	18,923.9255	0.9510		18,943.8955
Total	**30.8964**	**32.0970**	**185.2686**	**0.2291**	**16.6625**	**0.5157**	**17.1782**	**4.4543**	**0.4888**	**4.9430**	**0.0000**	**19,675.0473**	**19,675.0473**	**1.0091**	**0.0130**	**19,700.2552**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.05**	**0.42**	**0.03**	**0.38**	**0.00**	**2.09**	**0.06**	**0.00**	**2.20**	**0.22**	**0.00**	**0.87**	**0.87**	**0.33**	**19.70**	**0.88**

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	Mass Grading	Grading	1/29/2015	3/18/2015	5	35	
3	Grading/Soil Hauling	Grading	3/19/2015	4/3/2015	5	12	
4	Building Construction	Building Construction	4/4/2015	9/2/2016	5	370	
5	Paving	Paving	9/3/2016	9/30/2016	5	20	
6	Architectural Coating	Architectural Coating	10/1/2016	10/28/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 873,958; Residential Outdoor: 291,319; Non-Residential Indoor: 113,850; Non-Residential Outdoor: 39,048

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
Mass Grading	Excavators	2	8.00	162	0.38
Mass Grading	Graders	1	8.00	174	0.41
Mass Grading	Rubber Tired Dozers	1	8.00	255	0.40
Mass Grading	Scrapers	2	8.00	361	0.48
Mass Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading/Soil Hauling	Excavators	2	8.00	162	0.38
Grading/Soil Hauling	Graders	1	8.00	174	0.41
Grading/Soil Hauling	Rubber Tired Dozers	1	8.00	255	0.40
Grading/Soil Hauling	Scrapers	2	8.00	361	0.48
Grading/Soil Hauling	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	16.00	0.00	44.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Mass Grading	8	20.00	0.00	68.00	12.30	4.60	30.00	LD_Mix	HDT_Mix	HHDT
Grading/Soil Hauling	8	20.00	0.00	1,668.00	12.30	4.60	35.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	248.00	48.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	12.30	4.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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					0.4772	0.0000	0.4772	0.0723	0.0000	0.0723			0.0000			0.0000
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858		4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**4.5083**	**48.3629**	**36.0738**	**0.0399**	**0.4772**	**2.4508**	**2.9280**	**0.0723**	**2.2858**	**2.3580**		**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

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	0.0662	0.8016	0.8608	1.6200e-003	0.0381	0.0118	0.0499	0.0104	0.0109	0.0213		164.2944	164.2944	1.3700e-003		164.3232
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0846	0.1351	1.1827	1.5900e-003	0.1497	1.2300e-003	0.1509	0.0397	1.1100e-003	0.0408		137.1852	137.1852	9.3300e-003		137.3812
Total	**0.1507**	**0.9367**	**2.0435**	**3.2100e-003**	**0.1877**	**0.0130**	**0.2008**	**0.0501**	**0.0120**	**0.0621**		**301.4796**	**301.4796**	**0.0107**		**301.7044**

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					0.1861	0.0000	0.1861	0.0282	0.0000	0.0282			0.0000			0.0000
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858	0.0000	4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**4.5083**	**48.3629**	**36.0738**	**0.0399**	**0.1861**	**2.4508**	**2.6369**	**0.0282**	**2.2858**	**2.3140**	**0.0000**	**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

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	0.0662	0.8016	0.8608	1.6200e-003	0.0381	0.0118	0.0499	0.0104	0.0109	0.0213		164.2944	164.2944	1.3700e-003		164.3232
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0846	0.1351	1.1827	1.5900e-003	0.1497	1.2300e-003	0.1509	0.0397	1.1100e-003	0.0408		137.1852	137.1852	9.3300e-003		137.3812
Total	**0.1507**	**0.9367**	**2.0435**	**3.2100e-003**	**0.1877**	**0.0130**	**0.2008**	**0.0501**	**0.0120**	**0.0621**		**301.4796**	**301.4796**	**0.0107**		**301.7044**

3.3 Mass 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					8.6746	0.0000	8.6746	3.5967	0.0000	3.5967			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**8.6746**	**3.8022**	**12.4768**	**3.5967**	**3.4980**	**7.0947**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0721	1.0378	0.8879	2.1300e-003	0.0504	0.0155	0.0659	0.0138	0.0143	0.0280		216.0082	216.0082	1.7600e-003		216.0451
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1057	0.1688	1.4784	1.9900e-003	0.1871	1.5400e-003	0.1886	0.0496	1.3900e-003	0.0510		171.4815	171.4815	0.0117		171.7265
Total	**0.1778**	**1.2067**	**2.3663**	**4.1200e-003**	**0.2375**	**0.0171**	**0.2545**	**0.0634**	**0.0157**	**0.0790**		**387.4898**	**387.4898**	**0.0134**		**387.7716**

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					3.3831	0.0000	3.3831	1.4027	0.0000	1.4027			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**3.3831**	**3.8022**	**7.1853**	**1.4027**	**3.4980**	**4.9007**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

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	0.0721	1.0378	0.8879	2.1300e-003	0.0504	0.0155	0.0659	0.0138	0.0143	0.0280		216.0082	216.0082	1.7600e-003		216.0451
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1057	0.1688	1.4784	1.9900e-003	0.1871	1.5400e-003	0.1886	0.0496	1.3900e-003	0.0510		171.4815	171.4815	0.0117		171.7265
Total	**0.1778**	**1.2067**	**2.3663**	**4.1200e-003**	**0.2375**	**0.0171**	**0.2545**	**0.0634**	**0.0157**	**0.0790**		**387.4898**	**387.4898**	**0.0134**		**387.7716**

3.4 Grading/Soil Hauling - 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					8.7656	0.0000	8.7656	3.6105	0.0000	3.6105			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**8.7656**	**3.8022**	**12.5678**	**3.6105**	**3.4980**	**7.1085**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.6461	86.0533	68.0956	0.1771	4.2055	1.2915	5.4970	1.1492	1.1879	2.3371		17,990.9694	17,990.9694	0.1452		17,994.0184
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1057	0.1688	1.4784	1.9900e-003	0.1871	1.5400e-003	0.1886	0.0496	1.3900e-003	0.0510		171.4815	171.4815	0.0117		171.7265
Total	**5.7518**	**86.2221**	**69.5739**	**0.1791**	**4.3926**	**1.2930**	**5.6857**	**1.1988**	**1.1892**	**2.3881**		**18,162.4510**	**18,162.4510**	**0.1569**		**18,165.7449**

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					3.4186	0.0000	3.4186	1.4081	0.0000	1.4081			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**3.4186**	**3.8022**	**7.2208**	**1.4081**	**3.4980**	**4.9061**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

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	5.6461	86.0533	68.0956	0.1771	4.2055	1.2915	5.4970	1.1492	1.1879	2.3371		17,990.9694	17,990.9694	0.1452		17,994.0184
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1057	0.1688	1.4784	1.9900e-003	0.1871	1.5400e-003	0.1886	0.0496	1.3900e-003	0.0510		171.4815	171.4815	0.0117		171.7265
Total	**5.7518**	**86.2221**	**69.5739**	**0.1791**	**4.3926**	**1.2930**	**5.6857**	**1.1988**	**1.1892**	**2.3881**		**18,162.4510**	**18,162.4510**	**0.1569**		**18,165.7449**

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		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6992	4.0623	9.3136	7.4000e-003	0.1995	0.0619	0.2614	0.0568	0.0568	0.1136		739.1795	739.1795	7.3400e-003		739.3337
Worker	1.3107	2.0934	18.3318	0.0247	2.3199	0.0191	2.3390	0.6153	0.0173	0.6326		2,126.3710	2,126.3710	0.1446		2,129.4080
Total	**2.0099**	**6.1557**	**27.6454**	**0.0321**	**2.5194**	**0.0810**	**2.6003**	**0.6721**	**0.0741**	**0.7462**		**2,865.5505**	**2,865.5505**	**0.1520**		**2,868.7417**

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	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6992	4.0623	9.3136	7.4000e-003	0.1995	0.0619	0.2614	0.0568	0.0568	0.1136		739.1795	739.1795	7.3400e-003		739.3337
Worker	1.3107	2.0934	18.3318	0.0247	2.3199	0.0191	2.3390	0.6153	0.0173	0.6326		2,126.3710	2,126.3710	0.1446		2,129.4080
Total	**2.0099**	**6.1557**	**27.6454**	**0.0321**	**2.5194**	**0.0810**	**2.6003**	**0.6721**	**0.0741**	**0.7462**		**2,865.5505**	**2,865.5505**	**0.1520**		**2,868.7417**

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		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6067	3.5849	8.6272	7.3900e-003	0.1995	0.0489	0.2484	0.0568	0.0449	0.1017		731.2159	731.2159	6.4000e-003		731.3503
Worker	1.1212	1.8373	15.8806	0.0247	2.3199	0.0176	2.3375	0.6153	0.0160	0.6313		2,050.7726	2,050.7726	0.1287		2,053.4752
Total	**1.7279**	**5.4222**	**24.5078**	**0.0321**	**2.5194**	**0.0664**	**2.5859**	**0.6721**	**0.0609**	**0.7330**		**2,781.9886**	**2,781.9886**	**0.1351**		**2,784.8255**

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	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6067	3.5849	8.6272	7.3900e-003	0.1995	0.0489	0.2484	0.0568	0.0449	0.1017		731.2159	731.2159	6.4000e-003		731.3503
Worker	1.1212	1.8373	15.8806	0.0247	2.3199	0.0176	2.3375	0.6153	0.0160	0.6313		2,050.7726	2,050.7726	0.1287		2,053.4752
Total	**1.7279**	**5.4222**	**24.5078**	**0.0321**	**2.5194**	**0.0664**	**2.5859**	**0.6721**	**0.0609**	**0.7330**		**2,781.9886**	**2,781.9886**	**0.1351**		**2,784.8255**

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		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0723	0.1185	1.0246	1.5900e-003	0.1497	1.1300e-003	0.1508	0.0397	1.0300e-003	0.0407		132.3079	132.3079	8.3000e-003		132.4823
Total	**0.0723**	**0.1185**	**1.0246**	**1.5900e-003**	**0.1497**	**1.1300e-003**	**0.1508**	**0.0397**	**1.0300e-003**	**0.0407**		**132.3079**	**132.3079**	**8.3000e-003**		**132.4823**

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	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0723	0.1185	1.0246	1.5900e-003	0.1497	1.1300e-003	0.1508	0.0397	1.0300e-003	0.0407		132.3079	132.3079	8.3000e-003		132.4823
Total	**0.0723**	**0.1185**	**1.0246**	**1.5900e-003**	**0.1497**	**1.1300e-003**	**0.1508**	**0.0397**	**1.0300e-003**	**0.0407**		**132.3079**	**132.3079**	**8.3000e-003**		**132.4823**

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	305.4871					0.0000	0.0000		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		281.4481	281.4481	0.0332		282.1449
Total	**305.8555**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2260	0.3704	3.2017	4.9700e-003	0.4677	3.5400e-003	0.4713	0.1241	3.2300e-003	0.1273		413.4622	413.4622	0.0260		414.0071
Total	**0.2260**	**0.3704**	**3.2017**	**4.9700e-003**	**0.4677**	**3.5400e-003**	**0.4713**	**0.1241**	**3.2300e-003**	**0.1273**		**413.4622**	**413.4622**	**0.0260**		**414.0071**

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	305.4871					0.0000	0.0000		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	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**305.8555**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2260	0.3704	3.2017	4.9700e-003	0.4677	3.5400e-003	0.4713	0.1241	3.2300e-003	0.1273		413.4622	413.4622	0.0260		414.0071
Total	**0.2260**	**0.3704**	**3.2017**	**4.9700e-003**	**0.4677**	**3.5400e-003**	**0.4713**	**0.1241**	**3.2300e-003**	**0.1273**		**413.4622**	**413.4622**	**0.0260**		**414.0071**

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					
Unmitigated	17.1295	31.2507	160.0926	0.2243	16.6625	0.3357	16.9981	4.4543	0.3087	4.7630		18,923.9255	18,923.9255	0.9510		18,943.8955

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,255.80	1,255.80	1255.80	3,464,917	3,464,917
City Park	0.00	0.00	0.00		
Regional Shopping Center	3,630.30	3,630.30	3630.30	4,396,506	4,396,506
Total	4,886.10	4,886.10	4,886.10	7,861,423	7,861,423

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.30	5.90	6.40	37.50	15.00	47.50	86	11	3
City Park	8.80	4.60	4.60	33.00	48.00	19.00	66	28	6
Regional Shopping Center	8.80	4.60	4.60	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.488515	0.036101	0.211699	0.155053	0.049887	0.007463	0.020047	0.014289	0.001917	0.002185	0.008106	0.001606	0.003132

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0648	0.5558	0.2517	3.5300e-003		0.0448	0.0448		0.0448	0.0448		706.6879	706.6879	0.0135	0.0130	710.9887
NaturalGas Unmitigated	0.0807	0.6921	0.3118	4.4000e-003		0.0558	0.0558		0.0558	0.0558		880.2969	880.2969	0.0169	0.0161	885.6543

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	426.288	4.6000e-003	0.0418	0.0351	2.5000e-004		3.1800e-003	3.1800e-003		3.1800e-003	3.1800e-003		50.1515	50.1515	9.6000e-004	9.2000e-004	50.4567
Apartments Mid Rise	7056.24	0.0761	0.6503	0.2767	4.1500e-003		0.0526	0.0526		0.0526	0.0526		830.1454	830.1454	0.0159	0.0152	835.1976
Total		**0.0807**	**0.6921**	**0.3118**	**4.4000e-003**		**0.0558**	**0.0558**		**0.0558**	**0.0558**		**880.2969**	**880.2969**	**0.0169**	**0.0161**	**885.6543**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Regional Shopping Center	0.374301	4.0400e-003	0.0367	0.0308	2.2000e-004		2.7900e-003	2.7900e-003		2.7900e-003	2.7900e-003		44.0355	44.0355	8.4000e-004	8.1000e-004	44.3035
Apartments Mid Rise	5.63255	0.0607	0.5191	0.2209	3.3100e-003		0.0420	0.0420		0.0420	0.0420		662.6524	662.6524	0.0127	0.0122	666.6852
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0648**	**0.5558**	**0.2517**	**3.5300e-003**		**0.0448**	**0.0448**		**0.0448**	**0.0448**		**706.6879**	**706.6879**	**0.0135**	**0.0130**	**710.9887**

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					
Unmitigated	13.7021	0.2905	24.9243	1.3000e-003		0.1353	0.1353		0.1353	0.1353	0.0000	44.4339	44.4339	0.0446	0.0000	45.3710

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	1.6739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.2517					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.7766	0.2905	24.9243	1.3000e-003		0.1353	0.1353		0.1353	0.1353		44.4339	44.4339	0.0446		45.3710
Total	**13.7021**	**0.2905**	**24.9243**	**1.3000e-003**		**0.1353**	**0.1353**		**0.1353**	**0.1353**	**0.0000**	**44.4339**	**44.4339**	**0.0446**	**0.0000**	**45.3710**