SAN MATEO COUNTY ANIMAL SHELTER AIR QUALITY AND GHG EMISSIONS ASSESSMENT

San Mateo County, California

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Project 15-040

Introduction

The purpose of this report is to address Air Quality and Greenhouse Gas (GHG) emission impacts associated with the proposed San Mateo County Animal Shelter at 12 Airport Boulevard in San Mateo, California. We understand that the proposed project includes the demolition of the existing SPCA facilities and construction of a new SPCA animal shelter facility. The new facility is anticipated to operate at a similar to less capacity than the existing animal shelter. The site is relatively flat and would not require substantial grading. Air Quality and GHG impacts could occur due to temporary construction emissions and as a result of direct and indirect emissions from use of the new shelter. This analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).

Setting

The project is located in the northern portion of the San Mateo County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and Federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NOx). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and Federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of diesel particulate matter (DPM). Several of these regulatory programs affect medium and heavy duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.[1] The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The BAAQMD is the regional agency tasked with managing air quality in the region. At the State level, the CARB (a part of the California Environmental Protection Agency [EPA]) oversees regional air district activities and regulates air quality at the State level. The BAAQMD has recently published the California Environmental Quality Act (CEQA) Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.[2]

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. The closest off-site sensitive receptors are residences located over 600 feet to the southwest of the project site on N. Idaho Street. The project would not introduce any new sensitive receptors to the area.

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. These Thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on BAAQMD's website and included in the Air District's updated CEQA Guidelines (updated May 2011). The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 1.

BAAQMD's adoption of significance thresholds contained in the 2011 CEQA Air Quality Guidelines was called into question by an order issued March 5, 2012, in California Building Industry Association (CBIA) v. BAAQMD (Alameda Superior Court Case No. RGI0548693). The order requires BAAQMD to set aside its approval of the thresholds until it has conducted environmental review under CEQA. The ruling made in the case concerned the environmental impacts of adopting the thresholds and how the thresholds would indirectly affect land use development patterns. In August 2013, the Appellate Court struck down the lower court's order to set aside the thresholds. However, this litigation remains pending as the California Supreme Court recently accepted a portion of CBIA's petition to review the appellate court's decision to uphold BAAQMD's adoption of the thresholds. The specific portion of the argument to be considered is in regard to whether CEQA requires consideration of the effects of the environment on a project (as contrasted to the effects of a proposed project on the environment). Therefore, the significance thresholds contained in the 2011 CEQA Air Quality Guidelines are applied to this project.

[1] Available online: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed: March 31, 2015.
[2] Bay Area Air Quality Management District, 2011. BAAQMD CEQA Air Quality Guidelines. May.

Table 1. Air Quality Significance Thresholds

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82	82	15
$PM_{2.5}$	54	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards for New Sources			
Excess Cancer Risk	10 per one million		
Chronic or Acute Hazard Index	1.0		
Incremental annual average $PM_{2.5}$	0.3 µg/m^3		
Health Risks and Hazards for Sensitive Receptors (Cumulative from all sources within 1,000 foot zone of influence) and Cumulative Thresholds for New Sources			
Excess Cancer Risk	100 per one million		
Chronic Hazard Index	10.0		
Annual Average $PM_{2.5}$	0.8 µg/m^3		
Greenhouse Gas Emissions			
GHG Annual Emissions	Not Applicable	1,100 metric tons, 4.6 metric tons per capita, or consistency with a Qualified GHG Reduction Strategy	

Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less; and GHG = greenhouse gas.

Impacts and Mitigation Measures

Impact 1: Conflict with or obstruct implementation of the applicable air quality plan? ***Less than significant.***

The most recent clean air plan is the *Bay Area 2010 Clean Air Plan* that was adopted by BAAQMD in September 2010. The proposed project would not conflict with the latest Clean Air planning efforts since the project would have emissions well below the BAAQMD thresholds (see Impact 2). The project, at approximately 29,000 square feet (s.f.), is too small to exceed any of the significance thresholds and, thus, it is not required to incorporate project-specific transportation control measures listed in the latest Clean Air Plan

Impact 2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? ***Less than significant.***

The Bay Area is considered a non-attainment area for ground-level ozone and $PM_{2.5}$ under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM_{10} under the California Clean Air Act, but not the Federal Act. The area has attained both State and Federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM_{10}, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for ozone precursor pollutants (ROG and NOx), PM_{10} and $PM_{2.5}$, and apply to both construction period and operational period impacts.

Due to the project size, operational period emissions would be less than significant. In their 2011 update to the CEQA Air Quality Guidelines, BAAQMD identified the size of land use projects that could result in significant air pollutant emissions. For construction exhaust impacts, the medical office building size was identified at 277,000 s.f. For operational impacts, the project size was identified at 117,000 s.f. Since the project proposes 29,000 s.f., it is concluded that emissions would be below the BAAQMD significance thresholds for both construction exhaust and operational emissions. However, because the project proposes to demolish the existing building on-site, modeling of construction emissions was conducted to quantify project impacts. The California Emissions Estimator Model (CalEEMod) Version 2013.2.2 was used to predict emissions from demolition and construction of the site assuming full build out of the project. The project land use types and size were input to CalEEMod.

Construction Period Emissions

CalEEMod provided annual emissions for construction. CalEEMod provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker and vendor truck traffic. The model default for construction equipment was based on a project of this type and size. The expected construction duration of 460 days was used in the model. The anticipated 29,645 s.f. for building demolition was entered into the model. *Attachment 1* includes the CalEEMod input and output values for construction emissions.

The proposed project land uses were input into CalEEMod, which included 29,000 s.f. entered as "Medical Office Building."

Average daily emissions were computed by dividing the total construction emissions by the number of construction days (approximately 460). Table 2 shows average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. As indicated in Table 2, predicted project emissions would not exceed the BAAQMD significance thresholds.

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. Fugitive dust emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. Fugitive dust emissions would also depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger

dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if Best Management Practices are employed to reduce these emissions. Implementation of Mitigation Measure AQ-1 would reduce this impact to a level of *less than significant*.

Table 2. Construction Period Emissions

Scenario	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
2016 Construction emissions (tons)	0.19 tons	1.81 tons	0.15 tons	0.12 tons
2017 Construction emissions (tons)	0.28 tons	1.18 tons	0.08 tons	0.07 tons
Average daily emissions (pounds)[1]	2.0 lbs.	13.0 lbs.	1.0 lbs.	0.8 lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**No**	**No**	**No**	**No**
Note: [1] Assumes 460 workdays.				

Mitigation Measure AQ-1: Include measures to control dust emissions.
Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality and fugitive dust-related impacts associated with grading and new construction to a less than significant. The contractor shall implement the following Best Management Practices that are required of all projects:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

4. All vehicle speeds on unpaved roads shall be limited to 15 mph.

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Impact 3: Violate any air quality standard or contribute substantially to an existing or projected air quality violation? ***Less than significant.***

As discussed under Impact 2, the project would have emissions less than the BAAQMD screening size for evaluating impacts related to ozone and particulate matter. Therefore, the project would not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below State and Federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard. The highest measured level over any 8-hour averaging period during the last 3 years in the Bay Area is less than 3.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. Intersections affected by the project would have traffic volumes less than the BAAQMD screening criteria and, thus, would not cause a violation of an ambient air quality standard or have a considerable contribution to cumulative violations of these standards.[3]

Impact 4: Expose sensitive receptors to substantial pollutant concentrations? ***Less than significant.***

Operation of the project is not expected to cause any localized emissions that could expose sensitive receptors to unhealthy air pollutant levels. No stationary sources of TACs, such as generators, are proposed as part of the project. Construction activity would generate dust and equipment exhausts on a temporary basis. The project would not introduce any new sensitive receptors to the area. Construction equipment and associated heavy-duty truck traffic generate diesel exhaust, which is a known TAC. Diesel exhaust and $PM_{2.5}$ can pose both potential health and nuisance impacts to nearby receptors. However, the nearest sensitive receptors are residences located over 600 feet to the southwest of the project site on N. Idaho Street. At this distance, excess cancer risk and non-cancer impacts to residences are not expected to exceed BAAQMD significance thresholds. Implementation of the Mitigation Measure AQ-1 would reduce impacts from fugitive dust to a level of *less than significant*.

Impact 5: Create objectionable odors affecting a substantial number of people? ***Less than significant.***

The project would generate localized emissions of diesel exhaust during construction equipment operation and truck activity. These emissions may be noticeable from time to time by adjacent receptors. However, they would be localized and are not likely to adversely affect people off site by resulting in confirmed odor complaints. The project would not include any sources of significant odors that would cause complaints from surrounding uses. This would be a *less-than-significant* impact.

Impact 6: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? ***Less than significant.***

The BAAQMD May 2011 CEQA Guidelines included GHG emissions-based significance thresholds. These thresholds include a "bright-line" emissions level of 1,100 metric tons (MT) per year for land-use type projects and 10,000 MT per year for stationary sources. Land use projects with emissions above the

[3] For a land-use project type, the BAAQMD CEQA Air Quality Guidelines state that a proposed project would result in a less than significant impact to localized carbon monoxide concentrations if the project would not increase traffic at affected intersections to more than 44,000 vehicles per hour.

1,100 MT per year threshold would then be subject to a GHG efficiency threshold of 4.6 MT per year per capita. Projects with emissions above the thresholds would be considered to have an impact, which, cumulatively, would be significant. The City of San Mateo is in the process of adopting a Qualified GHG Reduction Strategy. However, because the Strategy has not been formally adopted, GHG emissions from the proposed project are quantified and evaluated below.

CalEEMod Modeling

CalEEMod was also used to predict GHG emissions from operation of the site assuming full build-out of the project. The project land use types, size, and other project-specific information were input to the model. The use of this model for evaluating emissions from land use projects is recommended by BAAQMD. Unless otherwise noted below, the CalEEMod model defaults for San Mateo County were used. CalEEMod provides emissions for transportation, areas sources, electricity consumption, natural gas combustion, electricity usage associated with water usage and wastewater discharge, and solid waste land filling and transport. CalEEMod output worksheets are included in *Attachment 1*.

Land Use Descriptions
The proposed project land uses were input into CalEEMod, which included 29,000 s.f. of "Medical Office Building."

Trip Generation Rates
The default trip rate, lengths, and trip types specified by CalEEMod for San Mateo County were used.

Model Year
The model uses mobile emission factors from the CARB's EMFAC2011 model. This model is sensitive to the year selected, since vehicle emissions have and continue to be reduced due to fuel efficiency standards and low carbon fuels. The year 2018 was analyzed since it is the first full year that the built-out project could conceivably be occupied based on the proposed construction duration.

Energy
Emissions rates associated with electricity consumption were adjusted to account for Pacific Gas & Electric utility's (PG&E) most recent independently verified carbon dioxide (CO_2) intensity rate. CalEEMod uses a default rate of 641.35 pounds of CO_2 per megawatt of electricity produced. The most recent verified rate for PG&E is 445 pounds of CO_2 per megawatt of electricity delivered.[4]

The 2013 Title 24 Building Standards became effective July 1, 2014 and are predicted to use 25 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2008 standards that CalEEMod incorporates.[5] Therefore, the CalEEMod run was adjusted to account for the greater energy efficiency.

Other Inputs
Default model assumptions for GHG emissions associated with area sources, solid waste generation, and water/wastewater use were applied to the project.

Construction Emissions

GHG emissions associated with construction were computed to be 279 MT of CO_2e, anticipated to occur

[4] PG&E, 2015. *Fighting Climate Change*. Available on-line at: http://www.pge.com/en/about/environment/pge/climate/index.page. Accessed: March 31, 2015.
[5] California Energy Commission, 2012. *2013 Building Energy Efficiency Standards FAQ*. May.

over the entire construction period. These are the emissions from on-site operation of construction equipment, vendor truck trips, and worker trips. Neither the County, the City, nor BAAQMD have an adopted Threshold of Significance for construction-related GHG emissions, though BAAQMD recommends quantifying emissions and disclosing that GHG emissions would occur during construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable. Best management practices assumed to be incorporated into construction of the proposed project include, but are not limited to: using local building materials of at least 10 percent and recycling or reusing at least 50 percent of construction waste or demolition materials.

Operational Emissions

The CalEEMod model was used to predict daily emissions associated with operation of the fully-developed site under the proposed project. In 2017, annual emissions resulting from operation of the proposed project are predicted to be 810 MT of CO_2e, as shown in Table 3. These emissions would not exceed the BAAQMD threshold of 1,100 MT of CO_2e/yr even without netting out Existing GHG emissions, and, therefore, *this would be considered a less-than-significant impact*.

Table 3. Annual Project GHG Emissions (CO_2e) in Metric Tons

Source Category	2018 Project Emissions
Area	<1
Energy Consumption	92
Mobile	566
Solid Waste Generation	143
Water Usage	9
Project Total	810
BAAQMD Threshold	1,100 MT CO_2e/year

Impact 7: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? ***No Impact.***

The project would be subject to new requirements under rule making developed at the State and local level regarding GHG emissions and be subject to local policies, such as the City Climate Action Plan, that may affect emissions of greenhouse gases.

Attachment 1: CalEEMod Emission Computations

San Mateo County Animal Shelter

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	29.00	1000sqft	0.67	29,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	445	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Using the most recent verified PG&E CO2 factor.

Construction Phase - Based on 460 day construction period

Demolition - 29,645 s.f. building demo.

Energy Use - 2013 Title 24 Standards 25% more efficient than 2008 Title 24.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	18.00
tblConstructionPhase	NumDays	100.00	373.00
tblConstructionPhase	NumDays	10.00	37.00
tblConstructionPhase	NumDays	2.00	9.00
tblConstructionPhase	NumDays	5.00	18.00
tblConstructionPhase	NumDays	1.00	5.00

tblEnergyUse	LightingElect	4.07	3.05
tblEnergyUse	T24E	5.01	3.76
tblEnergyUse	T24NG	19.28	14.46
tblGrading	AcresOfGrading	2.50	0.50
tblProjectCharacteristics	CO2IntensityFactor	641.35	445
tblProjectCharacteristics	OperationalYear	2014	2018

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					
2016	0.1915	1.8118	1.2589	1.7900e-003	0.0335	0.1204	0.1538	8.2300e-003	0.1114	0.1196	0.0000	164.6349	164.6349	0.0402	0.0000	165.4782
2017	0.2753	1.1828	0.8478	1.2400e-003	0.0109	0.0773	0.0881	2.9400e-003	0.0712	0.0742	0.0000	112.4146	112.4146	0.0294	0.0000	113.0314
Total	**0.4668**	**2.9946**	**2.1067**	**3.0300e-003**	**0.0443**	**0.1976**	**0.2419**	**0.0112**	**0.1826**	**0.1938**	**0.0000**	**277.0495**	**277.0495**	**0.0695**	**0.0000**	**278.5096**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1284	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.2000e-004	5.2000e-004	0.0000	0.0000	5.5000e-004

Energy	2.4200e-003	0.0220	0.0185	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	91.9010	91.9010	4.8900e-003	1.3600e-003	92.4238
Mobile	0.3734	0.6540	3.4942	7.6400e-003	0.5727	9.0100e-003	0.5817	0.1536	8.3000e-003	0.1619	0.0000	565.0210	565.0210	0.0241	0.0000	565.5268
Waste						0.0000	0.0000		0.0000	0.0000	63.5768	0.0000	63.5768	3.7573	0.0000	142.4796
Water						0.0000	0.0000		0.0000	0.0000	1.1545	4.4641	5.6186	0.1189	2.8600e-003	9.0014
Total	**0.5042**	**0.6760**	**3.5130**	**7.7700e-003**	**0.5727**	**0.0107**	**0.5833**	**0.1536**	**9.9700e-003**	**0.1636**	**64.7312**	**661.3867**	**726.1179**	**3.9051**	**4.2200e-003**	**809.4322**

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	1/1/2016	2/22/2016	5	37	
2	Site Preparation	Site Preparation	2/23/2016	2/29/2016	5	5	
3	Grading	Grading	3/1/2016	3/11/2016	5	9	
4	Building Construction	Building Construction	3/12/2016	8/16/2017	5	373	
5	Paving	Paving	8/17/2017	9/11/2017	5	18	
6	Architectural Coating	Architectural Coating	9/12/2017	10/5/2017	5	18	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 43,500; Non-Residential Outdoor: 14,500 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41

Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
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	4	10.00	0.00	135.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	9.00	5.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					0.0146	0.0000	0.0146	2.2100e-003	0.0000	2.2100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0243	0.2079	0.1610	2.2000e-004		0.0149	0.0149		0.0142	0.0142	0.0000	20.0323	20.0323	4.0000e-003	0.0000	20.1164
Total	**0.0243**	**0.2079**	**0.1610**	**2.2000e-004**	**0.0146**	**0.0149**	**0.0295**	**2.2100e-003**	**0.0142**	**0.0164**	**0.0000**	**20.0323**	**20.0323**	**4.0000e-003**	**0.0000**	**20.1164**

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	1.7200e-003	0.0203	0.0241	5.0000e-005	1.1300e-003	2.5000e-004	1.3800e-003	3.1000e-004	2.3000e-004	5.4000e-004	0.0000	4.4751	4.4751	3.0000e-005	0.0000	4.4758
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	6.6000e-004	1.0300e-003	9.7900e-003	2.0000e-005	1.6700e-003	1.0000e-005	1.6900e-003	4.4000e-004	1.0000e-005	4.6000e-004	0.0000	1.5079	1.5079	8.0000e-005	0.0000	1.5097
Total	**2.3800e-003**	**0.0213**	**0.0339**	**7.0000e-005**	**2.8000e-003**	**2.6000e-004**	**3.0700e-003**	**7.5000e-004**	**2.4000e-004**	**1.0000e-003**	**0.0000**	**5.9830**	**5.9830**	**1.1000e-004**	**0.0000**	**5.9854**

3.3 Site Preparation - 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					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-003	0.0341	0.0184	2.0000e-005		2.0800e-003	2.0800e-003		1.9200e-003	1.9200e-003	0.0000	2.2069	2.2069	6.7000e-004	0.0000	2.2209

Total	**3.4000e-003**	**0.0341**	**0.0184**	**2.0000e-005**	**2.7000e-004**	**2.0800e-003**	**2.3500e-003**	**3.0000e-005**	**1.9200e-003**	**1.9500e-003**	**0.0000**	**2.2069**	**2.2069**	**6.7000e-004**	**0.0000**	**2.2209**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	7.0000e-005	6.6000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1019	0.1019	1.0000e-005	0.0000	0.1020
Total	**4.0000e-005**	**7.0000e-005**	**6.6000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1019**	**0.1019**	**1.0000e-005**	**0.0000**	**0.1020**

3.4 Grading - 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					
Fugitive Dust					3.3900e-003	0.0000	3.3900e-003	1.8600e-003	0.0000	1.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9100e-003	0.0506	0.0392	5.0000e-005		3.6200e-003	3.6200e-003		3.4500e-003	3.4500e-003	0.0000	4.8727	4.8727	9.7000e-004	0.0000	4.8932
Total	**5.9100e-003**	**0.0506**	**0.0392**	**5.0000e-005**	**3.3900e-003**	**3.6200e-003**	**7.0100e-003**	**1.8600e-003**	**3.4500e-003**	**5.3100e-003**	**0.0000**	**4.8727**	**4.8727**	**9.7000e-004**	**0.0000**	**4.8932**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.5000e-004	2.3800e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3668	0.3668	2.0000e-005	0.0000	0.3672
Total	**1.6000e-004**	**2.5000e-004**	**2.3800e-003**	**0.0000**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3668**	**0.3668**	**2.0000e-005**	**0.0000**	**0.3672**

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	0.1451	1.4391	0.8623	1.1900e-003		0.0987	0.0987		0.0908	0.0908	0.0000	112.2625	112.2625	0.0339	0.0000	112.9736
Total	**0.1451**	**1.4391**	**0.8623**	**1.1900e-003**		**0.0987**	**0.0987**		**0.0908**	**0.0908**	**0.0000**	**112.2625**	**112.2625**	**0.0339**	**0.0000**	**112.9736**

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	6.8700e-003	0.0532	0.0911	1.2000e-004	3.3500e-003	7.6000e-004	4.1100e-003	9.6000e-004	7.0000e-004	1.6600e-003	0.0000	11.1062	11.1062	9.0000e-005	0.0000	11.1081
Worker	3.3800e-003	5.2600e-003	0.0500	1.0000e-004	8.5400e-003	7.0000e-005	8.6100e-003	2.2700e-003	6.0000e-005	2.3400e-003	0.0000	7.7026	7.7026	4.2000e-004	0.0000	7.7114
Total	**0.0103**	**0.0585**	**0.1411**	**2.2000e-004**	**0.0119**	**8.3000e-004**	**0.0127**	**3.2300e-003**	**7.6000e-004**	**4.0000e-003**	**0.0000**	**18.8088**	**18.8088**	**5.1000e-004**	**0.0000**	**18.8195**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1038	1.0329	0.6552	9.2000e-004		0.0697	0.0697		0.0641	0.0641	0.0000	85.7306	85.7306	0.0263	0.0000	86.2822
Total	**0.1038**	**1.0329**	**0.6552**	**9.2000e-004**		**0.0697**	**0.0697**		**0.0641**	**0.0641**	**0.0000**	**85.7306**	**85.7306**	**0.0263**	**0.0000**	**86.2822**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9900e-003	0.0371	0.0675	1.0000e-004	2.6000e-003	5.1000e-004	3.1100e-003	7.5000e-004	4.7000e-004	1.2200e-003	0.0000	8.4887	8.4887	7.0000e-005	0.0000	8.4900

Worker	2.3300e-003	3.6700e-003	0.0346	8.0000e-005	6.6300e-003	5.0000e-005	6.6800e-003	1.7600e-003	5.0000e-005	1.8100e-003	0.0000	5.7572	5.7572	3.0000e-004	0.0000	5.7634
Total	**7.3200e-003**	**0.0408**	**0.1021**	**1.8000e-004**	**9.2300e-003**	**5.6000e-004**	**9.7900e-003**	**2.5100e-003**	**5.2000e-004**	**3.0300e-003**	**0.0000**	**14.2458**	**14.2458**	**3.7000e-004**	**0.0000**	**14.2535**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.3700e-003	0.0885	0.0652	1.0000e-004		5.4200e-003	5.4200e-003		5.0100e-003	5.0100e-003	0.0000	8.7275	8.7275	2.4200e-003	0.0000	8.7784
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.3700e-003**	**0.0885**	**0.0652**	**1.0000e-004**		**5.4200e-003**	**5.4200e-003**		**5.0100e-003**	**5.0100e-003**	**0.0000**	**8.7275**	**8.7275**	**2.4200e-003**	**0.0000**	**8.7784**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	8.1000e-004	7.6500e-003	2.0000e-005	1.4600e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2715	1.2715	7.0000e-005	0.0000	1.2729
Total	**5.1000e-004**	**8.1000e-004**	**7.6500e-003**	**2.0000e-005**	**1.4600e-003**	**1.0000e-005**	**1.4800e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2715**	**1.2715**	**7.0000e-005**	**0.0000**	**1.2729**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1512					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0197	0.0168	3.0000e-005		1.5600e-003	1.5600e-003		1.5600e-003	1.5600e-003	0.0000	2.2979	2.2979	2.4000e-004	0.0000	2.3030
Total	**0.1542**	**0.0197**	**0.0168**	**3.0000e-005**		**1.5600e-003**	**1.5600e-003**		**1.5600e-003**	**1.5600e-003**	**0.0000**	**2.2979**	**2.2979**	**2.4000e-004**	**0.0000**	**2.3030**

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	6.0000e-005	9.0000e-005	8.5000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1413	0.1413	1.0000e-005	0.0000	0.1414
Total	**6.0000e-005**	**9.0000e-005**	**8.5000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1413**	**0.1413**	**1.0000e-005**	**0.0000**	**0.1414**

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	0.3734	0.6540	3.4942	7.6400e-003	0.5727	9.0100e-003	0.5817	0.1536	8.3000e-003	0.1619	0.0000	565.0210	565.0210	0.0241	0.0000	565.5268

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	1,047.77	259.84	44.95	1,550,041	1,550,041
Total	1,047.77	259.84	44.95	1,550,041	1,550,041

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
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.579415	0.062669	0.176431	0.113724	0.029579	0.004153	0.015740	0.004138	0.002638	0.003681	0.006622	0.000227	0.000983

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	67.9604	67.9604	4.4300e-003	9.2000e-004	68.3375
NaturalGas Unmitigated	2.4200e-003	0.0220	0.0185	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.9406	23.9406	4.6000e-004	4.4000e-004	24.0863

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					
Medical Office Building	448630	2.4200e-003	0.0220	0.0185	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.9406	23.9406	4.6000e-004	4.4000e-004	24.0863
Total		**2.4200e-003**	**0.0220**	**0.0185**	**1.3000e-004**		**1.6700e-003**	**1.6700e-003**		**1.6700e-003**	**1.6700e-003**	**0.0000**	**23.9406**	**23.9406**	**4.6000e-004**	**4.4000e-004**	**24.0863**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	336690	67.9604	4.4300e-003	9.2000e-004	68.3375
Total		**67.9604**	**4.4300e-003**	**9.2000e-004**	**68.3375**

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	0.1284	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.2000e-004	5.2000e-004	0.0000	0.0000	5.5000e-004

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	0.0151					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1133					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.2000e-004	5.2000e-004	0.0000	0.0000	5.5000e-004
Total	**0.1284**	**0.0000**	**2.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.2000e-004**	**5.2000e-004**	**0.0000**	**0.0000**	**5.5000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	5.6186	0.1189	2.8600e-003	9.0014

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	3.63894 / 0.693131	5.6186	0.1189	2.8600e-003	9.0014
Total		**5.6186**	**0.1189**	**2.8600e-003**	**9.0014**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	63.5768	3.7573	0.0000	142.4796

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	313.2	63.5768	3.7573	0.0000	142.4796
Total		**63.5768**	**3.7573**	**0.0000**	**142.4796**

9.0 Operational Offroad

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

10.0 Vegetation