

Memorandum

To	Peterson Z. Vollmann, Planner III	Page	1
Subject	Greenhouse Gases and Climate Change Screening Analysis – Broadstone on Broadway Project		
From	Michael Kay, Project Manager		
Date	May 8, 2016		

This memorandum contains the greenhouse gas (GHG) emissions analysis for the Broadstone on Broadway Project (Project) to determine the applicability of the requirements under Broadway Valdez District Specific Plan (BVDSP) Area Environmental Impact Report (EIR). AECOM assessed the applicability of Standard Condition of Approval (SCA) 38 (equivalent to SCA F referenced in the BVDSP EIR).

SCA 38 – GHG Reduction Plan

SCA 38 requires project applicants develop a GHG Reduction Plan for City Approval, and requires implementation of the approved GHG Reduction Plan. SCA 38 applies under any of the following scenarios for projects which result in a net increase in GHG emissions:

- a. Scenario A: Projects which (a) involve a land use development (i.e., a project that does not require a permit from the Bay Area Air Quality Management District [BAAQMD] to operate), (b) exceed the GHG emissions screening criteria contained in the BAAQMD CEQA Guidelines, and (c) after a GHG analysis is prepared would produce total GHG emissions of more than 1,100 metric tons of CO₂e annually and more than 4.6 metric tons of CO₂e per service population annually (with “service population” defined as the total number of employees and residents of the project).
- b. Scenario B: Projects which (a) involve a land use development, (b) exceed the GHG emissions screening criteria contained in the BAAQMD CEQA Guidelines, (c) after a GHG analysis is prepared would exceed at least one of the BAAQMD Thresholds of Significance (more than 1,100 metric tons of CO₂e annually OR more than 4.6 metric tons of CO₂e per service population annually), and (d) are considered to be “Very Large Projects.”
- c. Scenario C: Projects which (a) involve a stationary source of GHG (i.e., a project that requires a permit from BAAQMD to operate) and (b) after a GHG analysis is prepared would produce total GHG emissions of more than 10,000 metric tons of CO₂e annually.

The Project would not involve a stationary source of GHG emissions, and therefore, Scenario C does not apply. Scenarios A and B may be applicable to the Project, as the Project involves a land use development. The Project includes the development of 218 residential dwelling units and

18,000 square feet of retail space. The residential land use of the Project exceeds the BAAQMD GHG emissions screening size of 87 dwelling units for mid-rise apartments¹. To further evaluate the applicability of Scenarios A and B, a GHG analysis was prepared to determine if the Project would meet the criteria of Scenario A condition (c) or Scenario B condition (c). The GHG analysis evaluated the Project against the BAAQMD annual threshold of significance of 1,100 metric tons of CO₂e² per year, and the BAAQMD GHG efficiency metric threshold of 4.6 metric tons of CO₂e per service population per year.

GHG Emissions Analysis

GHG emissions from Project construction and operation were estimated using the most recent version of the CalEEMod emissions modeling software (CalEEMod 2013.2.2).

Project construction would generate GHG emissions from the use of off-road construction equipment, hauling truck activity, and construction worker vehicle trips. Emissions from the construction of Phase 1 and Phase 2 of the Project were estimated. Phase 1 construction was assumed to begin in January 2017 ; Phase 2 construction was assumed to begin in January 2018. Project specific information, such as number of units, building square footage, site acreage, and land use type, was used where available. CalEEMod default construction phasing and schedules were used in the analysis, as Project specific-construction equipment schedules were not available. Further modeling details and assumptions can be found in the CalEEMod outputs included in Attachment A.

Project operations would generate GHG emissions from on-road vehicle activity, area sources (such as on-site fuel combustion), energy usage, waste disposal, and water usage. Phase 1 operational emissions were calculated for an assumed opening year of 2019; Phase 2 operational emissions were calculated for an assumed opening year of 2020. Project-specific trip generation rates were used in the analysis (Fehr & Peers 2016). These trip generation rates account for the trip reductions from the removal of the existing auto dealership, and therefore represent the net new Project trips. GHG intensity factors for PG&E electricity were updated to the latest available emissions data (The Climate Registry 2013). This is consistent with the calculation methods used in the GHG analysis of the BVDSP EIR. CalEEMod defaults for area sources and energy usage were used in the analysis, as Project-specific data for these inputs were not available. Further modeling details and assumptions can be found in the CalEEMod outputs included in Attachment A.

Project construction and operational GHG emissions are shown in Table 1. For comparison with the BAAQMD annual threshold of 1,100 metric tons of CO₂e per year, annual operational emissions from Phase 1 and Phase 2 were totaled. Construction emissions were amortized over the lifetime of the Project (assumed to be 40 years based on the GHG analysis assumptions contained in the BVDSP EIR), and the amortized emissions were added to the operational emissions to develop an annual GHG emission rate for the total Project.

¹ Note that the City's Housing Element EIR also contains screening criteria for residential development projects of 172 units. The project's residential component exceeds the City's screening criteria as well as the BAAQMD screening size.

² To account for the warming potential of different GHGs, emissions are often quantified and reported as CO₂ equivalents (CO₂e). With the warming potential of CO₂ set at a reference value of 1, CH₄ has a warming potential of 25 (i.e., one ton of methane has the same warming potential as 25 tons of CO₂ [IPCC 2007]), while N₂O has a warming potential of 298.

For comparison with the BAAQMD service population threshold of 4.6 metric tons of CO₂e per service population per year, the annual GHG emission rate for the total Project was divided by the service population of the Project. The service population used in this analysis was conservatively based on the number of residents, estimated by CalEEMod to be 623 residents for the total Project. This service population value does not include the number of employees, as an employee estimate was not available. This provides a more conservative estimate because if employees were included in the service population, the Project’s emissions per service population per year would be lower than the value shown in Table 1.

Table 1: Project Construction and Operational GHG Emissions

Category	CO₂e Emissions (metric tons)
Construction GHG Emissions	
Phase 1	522.3
Phase 2	113.1
<i>Total Construction GHG Emissions</i>	635.4
<i>Amortized Construction GHG Emissions (metric tons/year)</i>	15.9
Operational GHG Emissions	
Phase 1 Annual Emissions (metric tons/year)	771.3
Phase 2 Annual Emissions (metric tons/year)	278.3
<i>Total Annual Operational Emissions (metric tons/year)</i>	1,049.5
Total Project GHG Emissions	
Total Annual GHG Emissions (metric tons/year)	1,065.4
Total Service Population (residents + employees)	623
Total Project GHG Emissions by Service Population (metric tons/SP/yr)	1.71
Notes:	
a. Amortized construction GHG emissions were calculated assuming a 40-year Project lifetime.	
b. Total annual GHG emissions were calculated as the sum of operational annual emissions (Phase 1 and Phase 2) and amortized construction GHG emissions.	
c. Total service population shown only includes residents, as employee estimates were not available.	

As shown in Table 1, the total Project annual GHG emissions of 1,065.4 metric tons of CO₂e per year would not exceed the BAAQMD threshold of 1,100 metric tons of CO₂e per year. The Project’s GHG efficiency metric of 1.71 metric tons of CO₂e per service population per year would not exceed the BAAQMD threshold of 4.6 metric tons of CO₂e per service population per year.

Because the Project would not exceed either of the BAAQMD thresholds, Scenario A condition (c) and Scenario B condition (c) do not apply. Therefore, SCA 38 does not apply, and a GHG Reduction Plan is not required.

Attachment

CalEEMod Outputs

References

Tabibnia, Sam. 2016. Fehr & Peers. Email correspondence with Michael Kay, Project Manager, AECOM, regarding existing traffic volumes. April 21, 2016.

Intergovernmental Panel on Climate Change (IPCC). 2007. Fourth Assessment Report by Working Group I, "Climate Change 2007: The Physical Science Basis". https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html. Accessed July 2015.

The Climate Registry. 2013. Climate Registry Information System (CRIS): Pacific Gas & Electric: 2013 Emissions Information. Electric Power Sector Report 1.2.

Broadway and 28th - Phase 1 Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	207.00	Space	0.00	88,548.00	0
Apartments Mid Rise	171.00	Dwelling Unit	1.07	181,057.00	489
Regional Shopping Center	11.57	1000sqft	0.00	11,574.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	63
Climate Zone	5	Operational Year	2019		
Utility Company	User Defined				
CO2 Intensity (lb/MW hr)	427.27	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with BVDSP EIR GHG analysis, updated PG&E CO2 intensity factor has been used. Latest available data from The Climate Registry has been used (year 2013).

Land Use - Total Phase 1 lot acreage included in Residential land use. Residential land use includes residential, circulation, and amenity square footage.

Construction Phase - Construction anticipated to start in January 2017. Default CalEEMod construction schedule and activity used.

Demolition - Demolition amount distributed between phases based on site acreage.

Grading - Soil off-haul amount distributed between phases based on site acreage.

Architectural Coating -

Vehicle Trips - Project specific trip generation used. Trips from existing uses have been removed from the residential trips to represent the net increase in trips.

Woodstoves - Assumed no woodstoves. Assumed all fireplaces would be natural gas fired, no wood fireplaces.

Energy Use -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	94.05	117.99
tblFireplaces	NumberWood	23.94	0.00
tblGrading	MaterialExported	0.00	21,070.00
tblLandUse	LandUseSquareFeet	82,800.00	88,548.00
tblLandUse	LandUseSquareFeet	171,000.00	181,057.00
tblLandUse	LandUseSquareFeet	11,570.00	11,574.00
tblLandUse	LotAcreage	1.86	0.00
tblLandUse	LotAcreage	4.50	1.07
tblLandUse	LotAcreage	0.27	0.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.029
tblProjectCharacteristics	CO2IntensityFactor	0	427.27
tblProjectCharacteristics	N2OIntensityFactor	0	0.006
tblProjectCharacteristics	OperationalYear	2014	2019
tblVehicleTrips	ST_TR	7.16	0.31
tblVehicleTrips	ST_TR	49.97	33.65
tblVehicleTrips	SU_TR	6.07	0.31
tblVehicleTrips	SU_TR	25.24	33.65
tblVehicleTrips	WD_TR	6.59	0.31
tblVehicleTrips	WD_TR	42.94	33.65
tblWoodstoves	NumberCatalytic	0.86	0.00
tblWoodstoves	NumberNoncatalytic	0.86	0.00

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					
2017	2.2589	3.0885	3.3640	6.2700e-003	0.2315	0.1573	0.3888	0.0641	0.1505	0.2146	0.0000	521.1311	521.1311	0.0561	0.0000	522.3086
Total	2.2589	3.0885	3.3640	6.2700e-003	0.2315	0.1573	0.3888	0.0641	0.1505	0.2146	0.0000	521.1311	521.1311	0.0561	0.0000	522.3086

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					
2017	2.2589	3.0885	3.3640	6.2700e-003	0.2315	0.1573	0.3888	0.0641	0.1505	0.2146	0.0000	521.1308	521.1308	0.0561	0.0000	522.3083
Total	2.2589	3.0885	3.3640	6.2700e-003	0.2315	0.1573	0.3888	0.0641	0.1505	0.2146	0.0000	521.1308	521.1308	0.0561	0.0000	522.3083

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.3176	0.0148	1.2780	7.0000e-005		7.3900e-003	7.3900e-003		7.3900e-003	7.3900e-003	0.0000	7.7504	7.7504	2.1600e-003	1.0000e-004	7.8279
Energy	8.4600e-003	0.0725	0.0320	4.6000e-004		5.8500e-003	5.8500e-003		5.8500e-003	5.8500e-003	0.0000	345.2810	345.2810	0.0194	5.2100e-003	347.3020
Mobile	0.2338	0.5908	2.3523	4.6400e-003	0.2996	7.9900e-003	0.3076	0.0805	7.3700e-003	0.0879	0.0000	341.8803	341.8803	0.0124	0.0000	342.1410
Waste						0.0000	0.0000		0.0000	0.0000	18.4336	0.0000	18.4336	1.0894	0.0000	41.3109
Water						0.0000	0.0000		0.0000	0.0000	3.8065	17.7033	21.5098	0.3922	9.4800e-003	32.6842
Total	1.5599	0.6780	3.6623	5.1700e-003	0.2996	0.0212	0.3208	0.0805	0.0206	0.1011	22.2401	712.6150	734.8551	1.5155	0.0148	771.2660

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.3176	0.0148	1.2780	7.0000e-005		7.3900e-003	7.3900e-003		7.3900e-003	7.3900e-003	0.0000	7.7504	7.7504	2.1600e-003	1.0000e-004	7.8279
Energy	8.4600e-003	0.0725	0.0320	4.6000e-004		5.8500e-003	5.8500e-003		5.8500e-003	5.8500e-003	0.0000	345.2810	345.2810	0.0194	5.2100e-003	347.3020
Mobile	0.2338	0.5908	2.3523	4.6400e-003	0.2996	7.9900e-003	0.3076	0.0805	7.3700e-003	0.0879	0.0000	341.8803	341.8803	0.0124	0.0000	342.1410
Waste						0.0000	0.0000		0.0000	0.0000	18.4336	0.0000	18.4336	1.0894	0.0000	41.3109
Water						0.0000	0.0000		0.0000	0.0000	3.8065	17.7033	21.5098	0.3921	9.4700e-003	32.6781
Total	1.5599	0.6780	3.6623	5.1700e-003	0.2996	0.0212	0.3208	0.0805	0.0206	0.1011	22.2401	712.6150	734.8551	1.5154	0.0148	771.2599

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00
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3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/27/2017	5	20	
2	Site Preparation	Site Preparation	1/28/2017	1/31/2017	5	2	
3	Grading	Grading	2/1/2017	2/6/2017	5	4	
4	Building Construction	Building Construction	2/7/2017	11/13/2017	5	200	
5	Paving	Paving	11/14/2017	11/27/2017	5	10	
6	Architectural Coating	Architectural Coating	11/28/2017	12/11/2017	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 366,640; Residential Outdoor: 122,213; Non-Residential Indoor: 150,183; Non-Residential Outdoor: 50,061

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	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	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	5	13.00	0.00	150.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	2,634.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	164.00	35.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	33.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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
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Category	tons/yr										MT/yr					
	Fugitive Dust					0.0162	0.0000	0.0162	2.4500e-003	0.0000	2.4500e-003	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0272	0.2659	0.2087	2.4000e-004		0.0161	0.0161		0.0150	0.0150	0.0000	22.2938	22.2938	5.6600e-003	0.0000	22.4126
Total	0.0272	0.2659	0.2087	2.4000e-004	0.0162	0.0161	0.0323	2.4500e-003	0.0150	0.0175	0.0000	22.2938	22.2938	5.6600e-003	0.0000	22.4126

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	1.6000e-003	0.0202	0.0179	6.0000e-005	1.2700e-003	2.6000e-004	1.5300e-003	3.5000e-004	2.4000e-004	5.9000e-004	0.0000	5.0868	5.0868	4.0000e-005	0.0000	5.0876
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	4.4000e-004	6.6000e-004	6.3100e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0324	1.0324	6.0000e-005	0.0000	1.0336
Total	2.0400e-003	0.0208	0.0242	7.0000e-005	2.4500e-003	2.7000e-004	2.7200e-003	6.6000e-004	2.5000e-004	9.1000e-004	0.0000	6.1192	6.1192	1.0000e-004	0.0000	6.1212

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					0.0162	0.0000	0.0162	2.4500e-003	0.0000	2.4500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0272	0.2659	0.2087	2.4000e-004		0.0161	0.0161		0.0150	0.0150	0.0000	22.2938	22.2938	5.6600e-003	0.0000	22.4125

Total	0.0272	0.2659	0.2087	2.4000e-004	0.0162	0.0161	0.0323	2.4500e-003	0.0150	0.0175	0.0000	22.2938	22.2938	5.6600e-003	0.0000	22.4125
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6000e-003	0.0202	0.0179	6.0000e-005	1.2700e-003	2.6000e-004	1.5300e-003	3.5000e-004	2.4000e-004	5.9000e-004	0.0000	5.0868	5.0868	4.0000e-005	0.0000	5.0876
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	4.4000e-004	6.6000e-004	6.3100e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0324	1.0324	6.0000e-005	0.0000	1.0336
Total	2.0400e-003	0.0208	0.0242	7.0000e-005	2.4500e-003	2.7000e-004	2.7200e-003	6.6000e-004	2.5000e-004	9.1000e-004	0.0000	6.1192	6.1192	1.0000e-004	0.0000	6.1212

3.3 Site Preparation - 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					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3100e-003	0.0242	0.0159	2.0000e-005		1.3100e-003	1.3100e-003		1.2000e-003	1.2000e-003	0.0000	1.5895	1.5895	4.9000e-004	0.0000	1.5997
Total	2.3100e-003	0.0242	0.0159	2.0000e-005	5.8000e-003	1.3100e-003	7.1100e-003	2.9500e-003	1.2000e-003	4.1500e-003	0.0000	1.5895	1.5895	4.9000e-004	0.0000	1.5997

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	3.9000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0635	0.0635	0.0000	0.0000	0.0636
Total	3.0000e-005	4.0000e-005	3.9000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0635	0.0635	0.0000	0.0000	0.0636

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					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3100e-003	0.0242	0.0159	2.0000e-005		1.3100e-003	1.3100e-003		1.2000e-003	1.2000e-003	0.0000	1.5895	1.5895	4.9000e-004	0.0000	1.5997
Total	2.3100e-003	0.0242	0.0159	2.0000e-005	5.8000e-003	1.3100e-003	7.1100e-003	2.9500e-003	1.2000e-003	4.1500e-003	0.0000	1.5895	1.5895	4.9000e-004	0.0000	1.5997

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	3.9000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0635	0.0635	0.0000	0.0000	0.0636
Total	3.0000e-005	4.0000e-005	3.9000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0635	0.0635	0.0000	0.0000	0.0636

3.4 Grading - 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					
Fugitive Dust					0.0110	0.0000	0.0110	5.2300e-003	0.0000	5.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7700e-003	0.0396	0.0264	3.0000e-005		2.1300e-003	2.1300e-003		1.9600e-003	1.9600e-003	0.0000	2.6112	2.6112	8.0000e-004	0.0000	2.6280
Total	3.7700e-003	0.0396	0.0264	3.0000e-005	0.0110	2.1300e-003	0.0132	5.2300e-003	1.9600e-003	7.1900e-003	0.0000	2.6112	2.6112	8.0000e-004	0.0000	2.6280

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	0.0282	0.3543	0.3138	9.9000e-004	0.0222	4.5600e-003	0.0268	6.1100e-003	4.2000e-003	0.0103	0.0000	89.3242	89.3242	6.5000e-004	0.0000	89.3378
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	5.0000e-005	8.0000e-005	7.8000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1271	0.1271	1.0000e-005	0.0000	0.1272
Total	0.0282	0.3543	0.3145	9.9000e-004	0.0224	4.5600e-003	0.0269	6.1500e-003	4.2000e-003	0.0103	0.0000	89.4512	89.4512	6.6000e-004	0.0000	89.4651

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					0.0110	0.0000	0.0110	5.2300e-003	0.0000	5.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7700e-003	0.0396	0.0264	3.0000e-005		2.1300e-003	2.1300e-003		1.9600e-003	1.9600e-003	0.0000	2.6112	2.6112	8.0000e-004	0.0000	2.6280
Total	3.7700e-003	0.0396	0.0264	3.0000e-005	0.0110	2.1300e-003	0.0132	5.2300e-003	1.9600e-003	7.1900e-003	0.0000	2.6112	2.6112	8.0000e-004	0.0000	2.6280

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	0.0282	0.3543	0.3138	9.9000e-004	0.0222	4.5600e-003	0.0268	6.1100e-003	4.2000e-003	0.0103	0.0000	89.3242	89.3242	6.5000e-004	0.0000	89.3378
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	5.0000e-005	8.0000e-005	7.8000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1271	0.1271	1.0000e-005	0.0000	0.1272
Total	0.0282	0.3543	0.3145	9.9000e-004	0.0224	4.5600e-003	0.0269	6.1500e-003	4.2000e-003	0.0103	0.0000	89.4512	89.4512	6.6000e-004	0.0000	89.4651

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	0.2955	1.9109	1.4311	2.2000e-003		0.1226	0.1226		0.1182	0.1182	0.0000	184.5473	184.5473	0.0387	0.0000	185.3605
Total	0.2955	1.9109	1.4311	2.2000e-003		0.1226	0.1226		0.1182	0.1182	0.0000	184.5473	184.5473	0.0387	0.0000	185.3605

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	0.0394	0.3171	0.4809	8.4000e-004	0.0226	4.6100e-003	0.0272	6.5000e-003	4.2400e-003	0.0107	0.0000	74.9924	74.9924	5.9000e-004	0.0000	75.0047
Worker	0.0556	0.0831	0.7962	1.7800e-003	0.1489	1.2100e-003	0.1501	0.0396	1.1200e-003	0.0407	0.0000	130.2467	130.2467	7.0000e-003	0.0000	130.3936
Total	0.0949	0.4001	1.2771	2.6200e-003	0.1715	5.8200e-003	0.1773	0.0461	5.3600e-003	0.0515	0.0000	205.2391	205.2391	7.5900e-003	0.0000	205.3983

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	0.2955	1.9109	1.4311	2.2000e-003		0.1226	0.1226		0.1182	0.1182	0.0000	184.5471	184.5471	0.0387	0.0000	185.3603

Total	0.2955	1.9109	1.4311	2.2000e-003		0.1226	0.1226		0.1182	0.1182	0.0000	184.5471	184.5471	0.0387	0.0000	185.3603
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0394	0.3171	0.4809	8.4000e-004	0.0226	4.6100e-003	0.0272	6.5000e-003	4.2400e-003	0.0107	0.0000	74.9924	74.9924	5.9000e-004	0.0000	75.0047
Worker	0.0556	0.0831	0.7962	1.7800e-003	0.1489	1.2100e-003	0.1501	0.0396	1.1200e-003	0.0407	0.0000	130.2467	130.2467	7.0000e-003	0.0000	130.3936
Total	0.0949	0.4001	1.2771	2.6200e-003	0.1715	5.8200e-003	0.1773	0.0461	5.3600e-003	0.0515	0.0000	205.2391	205.2391	7.5900e-003	0.0000	205.3983

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	5.9300e-003	0.0605	0.0452	7.0000e-005		3.6700e-003	3.6700e-003		3.3800e-003	3.3800e-003	0.0000	6.1129	6.1129	1.8400e-003	0.0000	6.1515
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.9300e-003	0.0605	0.0452	7.0000e-005		3.6700e-003	3.6700e-003		3.3800e-003	3.3800e-003	0.0000	6.1129	6.1129	1.8400e-003	0.0000	6.1515

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	2.2000e-004	3.3000e-004	3.1600e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5162	0.5162	3.0000e-005	0.0000	0.5168
Total	2.2000e-004	3.3000e-004	3.1600e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5162	0.5162	3.0000e-005	0.0000	0.5168

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.9300e-003	0.0605	0.0452	7.0000e-005		3.6700e-003	3.6700e-003		3.3800e-003	3.3800e-003	0.0000	6.1129	6.1129	1.8400e-003	0.0000	6.1515
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.9300e-003	0.0605	0.0452	7.0000e-005		3.6700e-003	3.6700e-003		3.3800e-003	3.3800e-003	0.0000	6.1129	6.1129	1.8400e-003	0.0000	6.1515

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	2.2000e-004	3.3000e-004	3.1600e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5162	0.5162	3.0000e-005	0.0000	0.5168
Total	2.2000e-004	3.3000e-004	3.1600e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5162	0.5162	3.0000e-005	0.0000	0.5168

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	1.7966					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6600e-003	0.0109	9.3400e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	1.2766	1.2766	1.3000e-004	0.0000	1.2795
Total	1.7983	0.0109	9.3400e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	1.2766	1.2766	1.3000e-004	0.0000	1.2795

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	5.6000e-004	8.4000e-004	8.0100e-003	2.0000e-005	1.5000e-003	1.0000e-005	1.5100e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3104	1.3104	7.0000e-005	0.0000	1.3119
Total	5.6000e-004	8.4000e-004	8.0100e-003	2.0000e-005	1.5000e-003	1.0000e-005	1.5100e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3104	1.3104	7.0000e-005	0.0000	1.3119

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	1.7966					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6600e-003	0.0109	9.3400e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	1.2766	1.2766	1.3000e-004	0.0000	1.2795
Total	1.7983	0.0109	9.3400e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	1.2766	1.2766	1.3000e-004	0.0000	1.2795

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	5.6000e-004	8.4000e-004	8.0100e-003	2.0000e-005	1.5000e-003	1.0000e-005	1.5100e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3104	1.3104	7.0000e-005	0.0000	1.3119
Total	5.6000e-004	8.4000e-004	8.0100e-003	2.0000e-005	1.5000e-003	1.0000e-005	1.5100e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3104	1.3104	7.0000e-005	0.0000	1.3119

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2338	0.5908	2.3523	4.6400e-003	0.2996	7.9900e-003	0.3076	0.0805	7.3700e-003	0.0879	0.0000	341.8803	341.8803	0.0124	0.0000	342.1410
Unmitigated	0.2338	0.5908	2.3523	4.6400e-003	0.2996	7.9900e-003	0.3076	0.0805	7.3700e-003	0.0879	0.0000	341.8803	341.8803	0.0124	0.0000	342.1410

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	53.01	53.01	53.01	118,338	118,338
Enclosed Parking with Elevator	0.00	0.00	0.00		
Regional Shopping Center	389.33	389.33	389.33	682,615	682,615
Total	442.34	442.34	442.34	800,953	800,953

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.542590	0.062129	0.167184	0.110637	0.030730	0.004573	0.019109	0.050292	0.001784	0.003671	0.005678	0.000201	0.001421

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 Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	261.5248	261.5248	0.0178	3.6700e-003	263.0360
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	261.5248	261.5248	0.0178	3.6700e-003	263.0360
NaturalGas Mitigated	8.4600e-003	0.0725	0.0320	4.6000e-004		5.8500e-003	5.8500e-003		5.8500e-003	5.8500e-003	0.0000	83.7563	83.7563	1.6100e-003	1.5400e-003	84.2660
NaturalGas Unmitigated	8.4600e-003	0.0725	0.0320	4.6000e-004		5.8500e-003	5.8500e-003		5.8500e-003	5.8500e-003	0.0000	83.7563	83.7563	1.6100e-003	1.5400e-003	84.2660

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					
Regional Shopping Center	55555.2	3.0000e-004	2.7200e-003	2.2900e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	2.9646	2.9646	6.0000e-005	5.0000e-005	2.9827
Apartments Mid Rise	1.51398e+006	8.1600e-003	0.0698	0.0297	4.5000e-004		5.6400e-003	5.6400e-003		5.6400e-003	5.6400e-003	0.0000	80.7916	80.7916	1.5500e-003	1.4800e-003	81.2833
Enclosed Parking with Elevator	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		8.4600e-003	0.0725	0.0320	4.7000e-004		5.8500e-003	5.8500e-003		5.8500e-003	5.8500e-003	0.0000	83.7563	83.7563	1.6100e-003	1.5300e-003	84.2660

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Regional Shopping Center	55555.2	3.0000e-004	2.7200e-003	2.2900e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	2.9646	2.9646	6.0000e-005	5.0000e-005	2.9827
Apartments Mid Rise	1.51398e+006	8.1600e-003	0.0698	0.0297	4.5000e-004		5.6400e-003	5.6400e-003		5.6400e-003	5.6400e-003	0.0000	80.7916	80.7916	1.5500e-003	1.4800e-003	81.2833
Enclosed Parking with Elevator	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		8.4600e-003	0.0725	0.0320	4.7000e-004		5.8500e-003	5.8500e-003		5.8500e-003	5.8500e-003	0.0000	83.7563	83.7563	1.6100e-003	1.5300e-003	84.2660

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	618225	119.8159	8.1300e-003	1.6800e-003	120.5083
Enclosed Parking with Elevator	596814	115.6663	7.8500e-003	1.6200e-003	116.3347
Regional Shopping Center	134374	26.0426	1.7700e-003	3.7000e-004	26.1931
Total		261.5248	0.0178	3.6700e-003	263.0360

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
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Consumer Products	1.0981				0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.7000e-004	0.0000	3.0000e-005	0.0000	4.0000e-004	4.0000e-004		3.9000e-004	3.9000e-004	0.0000	5.6724	5.6724	1.1000e-004	1.0000e-004	5.7069
Landscaping	0.0393	0.0148	1.2780	7.0000e-005	7.0000e-003	7.0000e-003		7.0000e-003	7.0000e-003	0.0000	2.0779	2.0779	2.0500e-003	0.0000	2.1209
Total	1.3176	0.0148	1.2780	7.0000e-005	7.4000e-003	7.4000e-003		7.3900e-003	7.3900e-003	0.0000	7.7504	7.7504	2.1600e-003	1.0000e-004	7.8278

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1797					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0981					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.7000e-004	0.0000	3.0000e-005	0.0000	4.0000e-004	4.0000e-004		3.9000e-004	3.9000e-004	0.0000	5.6724	5.6724	1.1000e-004	1.0000e-004	5.7069	
Landscaping	0.0393	0.0148	1.2780	7.0000e-005	7.0000e-003	7.0000e-003		7.0000e-003	7.0000e-003	0.0000	2.0779	2.0779	2.0500e-003	0.0000	2.1209	
Total	1.3176	0.0148	1.2780	7.0000e-005	7.4000e-003	7.4000e-003		7.3900e-003	7.3900e-003	0.0000	7.7504	7.7504	2.1600e-003	1.0000e-004	7.8278	

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	21.5098	0.3921	9.4700e-003	32.6781

Unmitigated	21.5098	0.3922	9.4800e-003	32.6842
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7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	11.1413 / 7.02389	19.9829	0.3642	8.8000e-003	30.3591
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.857019 / 0.52527	1.5269	0.0280	6.8000e-004	2.3251
Total		21.5098	0.3922	9.4800e-003	32.6842

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	11.1413 / 7.02389	19.9829	0.3641	8.7900e-003	30.3535
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.857019 / 0.52527	1.5269	0.0280	6.8000e-004	2.3246
Total		21.5098	0.3921	9.4700e-003	32.6781

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	18.4336	1.0894	0.0000	41.3109
Unmitigated	18.4336	1.0894	0.0000	41.3109

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	78.66	15.9673	0.9436	0.0000	35.7837
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	12.15	2.4663	0.1458	0.0000	5.5272
Total		18.4336	1.0894	0.0000	41.3109

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	78.66	15.9673	0.9436	0.0000	35.7837
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	12.15	2.4663	0.1458	0.0000	5.5272
Total		18.4336	1.0894	0.0000	41.3109

9.0 Operational Offroad

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

Broadway and 28th - Phase 2

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	56.00	Space	0.00	12,861.00	0
Apartments Mid Rise	47.00	Dwelling Unit	0.30	46,000.00	134
Regional Shopping Center	6.41	1000sqft	0.00	6,412.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	63
Climate Zone	5	Operational Year	2020		
Utility Company	User Defined				
CO2 Intensity (lb/MW hr)	427.27	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with BVDSP EIR GHG analysis, updated PG&E CO2 intensity factor has been used. Latest available data from The Climate Registry has been used (year 2013).

Land Use - Total Phase 2 lot acreage included in Residential land use. Residential land use includes residential and circulation square footage.

Construction Phase - Construction anticipated to start in January 2018. Default CalEEMod construction schedule and activity used.

Demolition - Demolition amount distributed between phases based on site acreage.

Grading - Soil off-haul amount distributed between phases based on site acreage.

Architectural Coating -

Vehicle Trips - Project specific trip generation used. Trips from existing uses have been removed from the residential trips to represent the net increase in trips.

Woodstoves - Assumed no woodstoves. Assumed all fireplaces would be natural gas fired, no wood fireplaces.

Energy Use -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	25.85	32.43
tblFireplaces	NumberWood	6.58	0.00
tblGrading	MaterialExported	0.00	5,930.00
tblLandUse	LandUseSquareFeet	22,400.00	12,861.00
tblLandUse	LandUseSquareFeet	47,000.00	46,000.00
tblLandUse	LandUseSquareFeet	6,410.00	6,412.00
tblLandUse	LotAcreage	0.50	0.00
tblLandUse	LotAcreage	1.24	0.30
tblLandUse	LotAcreage	0.15	0.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.029
tblProjectCharacteristics	CO2IntensityFactor	0	427.27
tblProjectCharacteristics	N2OIntensityFactor	0	0.006
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleTrips	ST_TR	7.16	0.20
tblVehicleTrips	ST_TR	49.97	33.65
tblVehicleTrips	SU_TR	6.07	0.20
tblVehicleTrips	SU_TR	25.24	33.65
tblVehicleTrips	WD_TR	6.59	0.20
tblVehicleTrips	WD_TR	42.94	33.65
tblWoodstoves	NumberCatalytic	0.24	0.00
tblWoodstoves	NumberNoncatalytic	0.24	0.00

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					
2018	0.5070	0.7743	0.6999	1.3000e-003	0.0349	0.0429	0.0778	9.0000e-003	0.0396	0.0486	0.0000	112.7325	112.7325	0.0193	0.0000	113.1382
Total	0.5070	0.7743	0.6999	1.3000e-003	0.0349	0.0429	0.0778	9.0000e-003	0.0396	0.0486	0.0000	112.7325	112.7325	0.0193	0.0000	113.1382

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					
2018	0.5070	0.7743	0.6999	1.3000e-003	0.0349	0.0429	0.0778	9.0000e-003	0.0396	0.0486	0.0000	112.7325	112.7325	0.0193	0.0000	113.1381
Total	0.5070	0.7743	0.6999	1.3000e-003	0.0349	0.0429	0.0778	9.0000e-003	0.0396	0.0486	0.0000	112.7325	112.7325	0.0193	0.0000	113.1381

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	0.3082	4.0600e-003	0.3507	2.0000e-005		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	2.1303	2.1303	5.9000e-004	3.0000e-005	2.1515
Energy	2.4100e-003	0.0207	9.4300e-003	1.3000e-004		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003	0.0000	88.0075	88.0075	4.8100e-003	1.3400e-003	88.5234
Mobile	0.1113	0.2667	1.1177	2.3100e-003	0.1493	3.8400e-003	0.1532	0.0401	3.5400e-003	0.0437	0.0000	164.9624	164.9624	5.8500e-003	0.0000	165.0853
Waste						0.0000	0.0000		0.0000	0.0000	5.7548	0.0000	5.7548	0.3401	0.0000	12.8969
Water						0.0000	0.0000		0.0000	0.0000	1.1221	5.2162	6.3383	0.1156	2.7900e-003	9.6325
Total	0.4219	0.2915	1.4779	2.4600e-003	0.1493	7.5400e-003	0.1569	0.0401	7.2400e-003	0.0474	6.8769	260.3163	267.1933	0.4670	4.1600e-003	278.2895

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	0.3082	4.0600e-003	0.3507	2.0000e-005		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	2.1303	2.1303	5.9000e-004	3.0000e-005	2.1515
Energy	2.4100e-003	0.0207	9.4300e-003	1.3000e-004		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003	0.0000	88.0075	88.0075	4.8100e-003	1.3400e-003	88.5234
Mobile	0.1113	0.2667	1.1177	2.3100e-003	0.1493	3.8400e-003	0.1532	0.0401	3.5400e-003	0.0437	0.0000	164.9624	164.9624	5.8500e-003	0.0000	165.0853
Waste						0.0000	0.0000		0.0000	0.0000	5.7548	0.0000	5.7548	0.3401	0.0000	12.8969
Water						0.0000	0.0000		0.0000	0.0000	1.1221	5.2162	6.3383	0.1156	2.7900e-003	9.6307
Total	0.4219	0.2915	1.4779	2.4600e-003	0.1493	7.5400e-003	0.1569	0.0401	7.2400e-003	0.0474	6.8769	260.3163	267.1933	0.4669	4.1600e-003	278.2877

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	1/12/2018	5	10	
2	Site Preparation	Site Preparation	1/13/2018	1/15/2018	5	1	
3	Grading	Grading	1/16/2018	1/17/2018	5	2	
4	Building Construction	Building Construction	1/18/2018	6/6/2018	5	100	
5	Paving	Paving	6/7/2018	6/13/2018	5	5	
6	Architectural Coating	Architectural Coating	6/14/2018	6/20/2018	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 93,150; Residential Outdoor: 31,050; Non-Residential Indoor: 28,910; Non-Residential Outdoor: 9,637 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	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	42.00	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	741.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	41.00	8.00	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	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

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					4.5600e-003	0.0000	4.5600e-003	6.9000e-004	0.0000	6.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2600e-003	0.0466	0.0418	6.0000e-005		3.0700e-003	3.0700e-003		2.9300e-003	2.9300e-003	0.0000	5.3245	5.3245	1.0300e-003	0.0000	5.3461
Total	5.2600e-003	0.0466	0.0418	6.0000e-005	4.5600e-003	3.0700e-003	7.6300e-003	6.9000e-004	2.9300e-003	3.6200e-003	0.0000	5.3245	5.3245	1.0300e-003	0.0000	5.3461

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	4.4000e-004	5.1300e-003	4.8700e-003	2.0000e-005	3.5000e-004	7.0000e-005	4.3000e-004	1.0000e-004	7.0000e-005	1.6000e-004	0.0000	1.3996	1.3996	1.0000e-005	0.0000	1.3999
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	1.5000e-004	2.3000e-004	2.1700e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3824	0.3824	2.0000e-005	0.0000	0.3828
Total	5.9000e-004	5.3600e-003	7.0400e-003	3.0000e-005	8.0000e-004	7.0000e-005	8.9000e-004	2.2000e-004	7.0000e-005	2.8000e-004	0.0000	1.7820	1.7820	3.0000e-005	0.0000	1.7826

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.5600e-003	0.0000	4.5600e-003	6.9000e-004	0.0000	6.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2600e-003	0.0466	0.0418	6.0000e-005		3.0700e-003	3.0700e-003		2.9300e-003	2.9300e-003	0.0000	5.3245	5.3245	1.0300e-003	0.0000	5.3461
Total	5.2600e-003	0.0466	0.0418	6.0000e-005	4.5600e-003	3.0700e-003	7.6300e-003	6.9000e-004	2.9300e-003	3.6200e-003	0.0000	5.3245	5.3245	1.0300e-003	0.0000	5.3461

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	4.4000e-004	5.1300e-003	4.8700e-003	2.0000e-005	3.5000e-004	7.0000e-005	4.3000e-004	1.0000e-004	7.0000e-005	1.6000e-004	0.0000	1.3996	1.3996	1.0000e-005	0.0000	1.3999
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	1.5000e-004	2.3000e-004	2.1700e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3824	0.3824	2.0000e-005	0.0000	0.3828
Total	5.9000e-004	5.3600e-003	7.0400e-003	3.0000e-005	8.0000e-004	7.0000e-005	8.9000e-004	2.2000e-004	7.0000e-005	2.8000e-004	0.0000	1.7820	1.7820	3.0000e-005	0.0000	1.7826

3.3 Site Preparation - 2018

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	5.5000e-004	5.4700e-003	3.5000e-003	0.0000		3.3000e-004	3.3000e-004		3.0000e-004	3.0000e-004	0.0000	0.4257	0.4257	1.3000e-004	0.0000	0.4285
Total	5.5000e-004	5.4700e-003	3.5000e-003	0.0000	2.7000e-004	3.3000e-004	6.0000e-004	3.0000e-005	3.0000e-004	3.3000e-004	0.0000	0.4257	0.4257	1.3000e-004	0.0000	0.4285

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	1.0000e-005	1.0000e-005	1.1000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0191	0.0191	0.0000	0.0000	0.0191
Total	1.0000e-005	1.0000e-005	1.1000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0191	0.0191	0.0000	0.0000	0.0191

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-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	5.5000e-004	5.4700e-003	3.5000e-003	0.0000		3.3000e-004	3.3000e-004		3.0000e-004	3.0000e-004	0.0000	0.4257	0.4257	1.3000e-004	0.0000	0.4285
Total	5.5000e-004	5.4700e-003	3.5000e-003	0.0000	2.7000e-004	3.3000e-004	6.0000e-004	3.0000e-005	3.0000e-004	3.3000e-004	0.0000	0.4257	0.4257	1.3000e-004	0.0000	0.4285

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.1000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0191	0.0191	0.0000	0.0000	0.0191
Total	1.0000e-005	1.0000e-005	1.1000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0191	0.0191	0.0000	0.0000	0.0191

3.4 Grading - 2018

Unmitigated Construction On-Site

Off-Road	1.0500e-003	9.3200e-003	8.3500e-003	1.0000e-005		6.1000e-004	6.1000e-004		5.9000e-004	5.9000e-004	0.0000	1.0649	1.0649	2.1000e-004	0.0000	1.0692
Total	1.0500e-003	9.3200e-003	8.3500e-003	1.0000e-005	1.0900e-003	6.1000e-004	1.7000e-003	4.6000e-004	5.9000e-004	1.0500e-003	0.0000	1.0649	1.0649	2.1000e-004	0.0000	1.0692

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	7.6800e-003	0.0906	0.0859	2.8000e-004	6.2500e-003	1.2700e-003	7.5200e-003	1.7200e-003	1.1700e-003	2.8900e-003	0.0000	24.6936	24.6936	1.8000e-004	0.0000	24.6975
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	5.0000e-005	4.3000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0765	0.0765	0.0000	0.0000	0.0766
Total	7.7100e-003	0.0906	0.0863	2.8000e-004	6.3400e-003	1.2700e-003	7.6100e-003	1.7400e-003	1.1700e-003	2.9100e-003	0.0000	24.7701	24.7701	1.8000e-004	0.0000	24.7741

3.5 Building Construction - 2018

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	0.0539	0.5479	0.3862	5.7000e-004		0.0353	0.0353		0.0325	0.0325	0.0000	51.7208	51.7208	0.0161	0.0000	52.0589
Total	0.0539	0.5479	0.3862	5.7000e-004		0.0353	0.0353		0.0325	0.0325	0.0000	51.7208	51.7208	0.0161	0.0000	52.0589

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	4.2300e-003	0.0328	0.0526	1.0000e-004	2.5900e-003	4.9000e-004	3.0700e-003	7.4000e-004	4.5000e-004	1.1900e-003	0.0000	8.4229	8.4229	7.0000e-005	0.0000	8.4243
Worker	6.1600e-003	9.3300e-003	0.0888	2.2000e-004	0.0186	1.5000e-004	0.0188	4.9500e-003	1.3000e-004	5.0800e-003	0.0000	15.6762	15.6762	8.0000e-004	0.0000	15.6930
Total	0.0104	0.0422	0.1414	3.2000e-004	0.0212	6.4000e-004	0.0218	5.6900e-003	5.8000e-004	6.2700e-003	0.0000	24.0991	24.0991	8.7000e-004	0.0000	24.1173

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	0.0539	0.5479	0.3862	5.7000e-004		0.0353	0.0353		0.0325	0.0325	0.0000	51.7208	51.7208	0.0161	0.0000	52.0589
Total	0.0539	0.5479	0.3862	5.7000e-004		0.0353	0.0353		0.0325	0.0325	0.0000	51.7208	51.7208	0.0161	0.0000	52.0589

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.2300e-003	0.0328	0.0526	1.0000e-004	2.5900e-003	4.9000e-004	3.0700e-003	7.4000e-004	4.5000e-004	1.1900e-003	0.0000	8.4229	8.4229	7.0000e-005	0.0000	8.4243
Worker	6.1600e-003	9.3300e-003	0.0888	2.2000e-004	0.0186	1.5000e-004	0.0188	4.9500e-003	1.3000e-004	5.0800e-003	0.0000	15.6762	15.6762	8.0000e-004	0.0000	15.6930
Total	0.0104	0.0422	0.1414	3.2000e-004	0.0212	6.4000e-004	0.0218	5.6900e-003	5.8000e-004	6.2700e-003	0.0000	24.0991	24.0991	8.7000e-004	0.0000	24.1173

3.6 Paving - 2018

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	2.2700e-003	0.0216	0.0178	3.0000e-005		1.2600e-003	1.2600e-003		1.1700e-003	1.1700e-003	0.0000	2.3909	2.3909	6.7000e-004	0.0000	2.4051
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.2700e-003	0.0216	0.0178	3.0000e-005		1.2600e-003	1.2600e-003		1.1700e-003	1.1700e-003	0.0000	2.3909	2.3909	6.7000e-004	0.0000	2.4051

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	1.4000e-004	2.0000e-004	1.9500e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3441	0.3441	2.0000e-005	0.0000	0.3445
Total	1.4000e-004	2.0000e-004	1.9500e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3441	0.3441	2.0000e-005	0.0000	0.3445

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	2.2700e-003	0.0216	0.0178	3.0000e-005		1.2600e-003	1.2600e-003		1.1700e-003	1.1700e-003	0.0000	2.3909	2.3909	6.7000e-004	0.0000	2.4051
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.2700e-003	0.0216	0.0178	3.0000e-005		1.2600e-003	1.2600e-003		1.1700e-003	1.1700e-003	0.0000	2.3909	2.3909	6.7000e-004	0.0000	2.4051

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	2.0000e-004	1.9500e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3441	0.3441	2.0000e-005	0.0000	0.3445
Total	1.4000e-004	2.0000e-004	1.9500e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3441	0.3441	2.0000e-005	0.0000	0.3445

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

Off-Road	7.5000e-004	5.0100e-003	4.6400e-003	1.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004	0.0000	0.6383	0.6383	6.0000e-005	0.0000	0.6396
Total	0.4251	5.0100e-003	4.6400e-003	1.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004	0.0000	0.6383	0.6383	6.0000e-005	0.0000	0.6396

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	6.0000e-005	9.0000e-005	8.7000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1529	0.1529	1.0000e-005	0.0000	0.1531
Total	6.0000e-005	9.0000e-005	8.7000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1529	0.1529	1.0000e-005	0.0000	0.1531

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1113	0.2667	1.1177	2.3100e-003	0.1493	3.8400e-003	0.1532	0.0401	3.5400e-003	0.0437	0.0000	164.9624	164.9624	5.8500e-003	0.0000	165.0853
Unmitigated	0.1113	0.2667	1.1177	2.3100e-003	0.1493	3.8400e-003	0.1532	0.0401	3.5400e-003	0.0437	0.0000	164.9624	164.9624	5.8500e-003	0.0000	165.0853

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	9.40	9.40	9.40	20,984	20,984
Enclosed Parking with Elevator	0.00	0.00	0.00		
Regional Shopping Center	215.70	215.70	215.70	378,182	378,182
Total	225.10	225.10	225.10	399,166	399,166

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.543091	0.062201	0.166716	0.110184	0.030625	0.004564	0.019041	0.050825	0.001789	0.003661	0.005684	0.000199	0.001418

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	64.1592	64.1592	4.3500e-003	9.0000e-004	64.5300
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	64.1592	64.1592	4.3500e-003	9.0000e-004	64.5300

NaturalGas Mitigated	2.4100e-003	0.0207	9.4300e-003	1.3000e-004		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003	0.0000	23.8483	23.8483	4.6000e-004	4.4000e-004	23.9934
NaturalGas Unmitigated	2.4100e-003	0.0207	9.4300e-003	1.3000e-004		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003	0.0000	23.8483	23.8483	4.6000e-004	4.4000e-004	23.9934

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					
Regional Shopping Center	30777.6	1.7000e-004	1.5100e-003	1.2700e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.6424	1.6424	3.0000e-005	3.0000e-005	1.6524
Apartments Mid Rise	416122	2.2400e-003	0.0192	8.1600e-003	1.2000e-004		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	22.2059	22.2059	4.3000e-004	4.1000e-004	22.3410
Enclosed Parking with Elevator	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		2.4100e-003	0.0207	9.4300e-003	1.3000e-004		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003	0.0000	23.8483	23.8483	4.6000e-004	4.4000e-004	23.9934

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	30777.6	1.7000e-004	1.5100e-003	1.2700e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.6424	1.6424	3.0000e-005	3.0000e-005	1.6524
Apartments Mid Rise	416122	2.2400e-003	0.0192	8.1600e-003	1.2000e-004		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	22.2059	22.2059	4.3000e-004	4.1000e-004	22.3410
Enclosed Parking with Elevator	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		2.4100e-003	0.0207	9.4300e-003	1.3000e-004		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003	0.0000	23.8483	23.8483	4.6000e-004	4.4000e-004	23.9934

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	169921	32.9319	2.2400e-003	4.6000e-004	33.1222
Enclosed Parking with Elevator	86683.1	16.7998	1.1400e-003	2.4000e-004	16.8968
Regional Shopping Center	74443.3	14.4276	9.8000e-004	2.0000e-004	14.5110
Total		64.1592	4.3600e-003	9.0000e-004	64.5300

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	169921	32.9319	2.2400e-003	4.6000e-004	33.1222
Enclosed Parking with Elevator	86683.1	16.7998	1.1400e-003	2.4000e-004	16.8968
Regional Shopping Center	74443.3	14.4276	9.8000e-004	2.0000e-004	14.5110
Total		64.1592	4.3600e-003	9.0000e-004	64.5300

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3082	4.0600e-003	0.3507	2.0000e-005		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	2.1303	2.1303	5.9000e-004	3.0000e-005	2.1515
Unmitigated	0.3082	4.0600e-003	0.3507	2.0000e-005		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	2.1303	2.1303	5.9000e-004	3.0000e-005	2.1515

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	0.0424					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.6000e-004	0.0000	1.0000e-005	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5591	1.5591	3.0000e-005	3.0000e-005	1.5686
Landscaping	0.0107	4.0600e-003	0.3507	2.0000e-005		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	0.5712	0.5712	5.6000e-004	0.0000	0.5829
Total	0.3082	4.0600e-003	0.3507	2.0000e-005		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	2.1303	2.1303	5.9000e-004	3.0000e-005	2.1515

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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SubCategory	tons/yr								MT/yr							
Architectural Coating	0.0424					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.6000e-004	0.0000	1.0000e-005	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5591	1.5591	3.0000e-005	3.0000e-005	1.5686
Landscaping	0.0107	4.0600e-003	0.3507	2.0000e-005		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	0.5712	0.5712	5.6000e-004	0.0000	0.5829
Total	0.3082	4.0600e-003	0.3507	2.0000e-005		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	2.1303	2.1303	5.9000e-004	3.0000e-005	2.1515

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.3383	0.1156	2.7900e-003	9.6307
Unmitigated	6.3383	0.1156	2.7900e-003	9.6325

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	3.06224 / 1.93054	5.4924	0.1001	2.4200e-003	8.3443

Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.474805 / 0.291009	0.8460	0.0155	3.8000e-004	1.2881
Total		6.3383	0.1156	2.8000e-003	9.6325

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	3.06224 / 1.93054	5.4924	0.1001	2.4200e-003	8.3428
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.474805 / 0.291009	0.8460	0.0155	3.7000e-004	1.2879
Total		6.3383	0.1156	2.7900e-003	9.6307

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.7548	0.3401	0.0000	12.8969
Unmitigated	5.7548	0.3401	0.0000	12.8969

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	21.62	4.3887	0.2594	0.0000	9.8353
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.73	1.3661	0.0807	0.0000	3.0616
Total		5.7548	0.3401	0.0000	12.8969

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	21.62	4.3887	0.2594	0.0000	9.8353
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.73	1.3661	0.0807	0.0000	3.0616
Total		5.7548	0.3401	0.0000	12.8969

9.0 Operational Offroad

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