
Attachment 14

The Lumber Yard Mixed Use Development

Santa Cruz County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	1.92	1000sqft	0.04	1,920.00	0
Parking Lot	15.65	1000sqft	0.36	15,648.00	0
Condo/Townhouse	8.00	Dwelling Unit	0.23	10,014.00	23
Strip Mall	9.60	1000sqft	0.00	9,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	61
Climate Zone	5			Operational Year	2017

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MW/hr)	641.35	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Actual size of both parcels combined in acres. 8 units at 9,600 square feet.

Construction Phase - Site grading cannot begin until mid April due to restriction on winter grading. Grading will take longer than 2 days due to the requirement for excavation and recompaction.

Demolition -

Grading - Entire site will require excavation and recompaction as per the requirements of the Geotechnical Report.

Woodstoves - No wood stoves or fireplaces are proposed.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Construction Off-road Equipment Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	106.00
tblConstructionPhase	NumDays	2.00	10.00
tblConstructionPhase	NumDays	1.00	2.00
tblConstructionPhase	PhaseEndDate	10/26/2016	10/25/2016
tblConstructionPhase	PhaseStartDate	10/20/2016	10/19/2016
tblConstructionPhase	PhaseStartDate	4/30/2016	5/2/2016
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	4.40	0.00
tblFireplaces	NumberNoFireplace	0.80	0.00
tblFireplaces	NumberWood	2.80	0.00
tblGrading	AcresOfGrading	0.00	0.81
tblGrading	AcresOfGrading	1.00	0.81
tblLandUse	LandUseSquareFeet	15,650.00	15,648.00
tblLandUse	LandUseSquareFeet	8,000.00	10,014.00
tblLandUse	LotAcreage	0.50	0.23
tblLandUse	LotAcreage	0.22	0.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblWoodstoves	NumberCatalytic	0.40	0.00
tblWoodstoves	NumberNoncatalytic	0.40	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

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
Percent Reduction	0.00	0.00	0.00	0.00	30.40	0.00	8.25	30.24	0.00	2.95	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational Unmitigated Operational

Category	ROG	NOx	CO	SO2	tons/yr					MT/yr					N2O	CO2e
					Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4		
Area	0.1774	9.7000e-004	0.0837	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1354	0.1354	1.4000e-004	0.0000	0.1383
Energy	1.3000e-003	0.0112	5.7100e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	62.9432	62.9432	2.5100e-003	7.0000e-004	63.2142
Mobile	0.2961	0.4847	2.6398	4.0100e-003	0.2789	5.6200e-003	0.2845	0.0747	5.1700e-003	0.0799	0.0000	304.1438	304.1438	0.0181	0.0000	304.5242
Waste						0.0000	0.0000		0.0000	0.0000	2.7932	0.0000	2.7932	0.1651	0.0000	6.2596
Water						0.0000	0.0000		0.0000	0.0000	0.3910	2.7182	3.1091	0.0403	9.7000e-004	4.2568
Total	0.4748	0.4969	2.7292	4.0800e-003	0.2789	6.9700e-003	0.2859	0.0747	6.5200e-003	0.0812	3.1841	369.9407	373.1248	0.2261	1.6700e-003	378.3932

2.2 Overall Operational

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Area	0.1774	9.7000e-004	0.0837	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1354	0.1354	1.4000e-004	0.0000	0.1383
Energy	1.3000e-003	0.0112	5.7100e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	58.3047	58.3047	2.3000e-003	6.6000e-004	58.5578
Mobile	0.2763	0.3906	2.2266	3.0700e-003	0.2103	4.4200e-003	0.2147	0.0563	4.0600e-003	0.0604	0.0000	232.5973	232.5973	0.0145	0.0000	232.9009
Waste						0.0000	0.0000		0.0000	0.0000	0.5586	0.0000	0.5586	0.0330	0.0000	1.2519
Water						0.0000	0.0000		0.0000	0.0000	0.3128	2.2827	2.5955	0.0322	7.8000e-004	3.5135
Total	0.4550	0.4028	2.3160	3.1400e-003	0.2103	5.7700e-003	0.2161	0.0563	5.4100e-003	0.0617	0.8714	293.3202	294.1916	0.0821	1.4400e-003	296.3625

	ROG	NOx	CO	SO2	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	4.15	18.94	15.14	23.04	24.61	17.22	24.43	24.61	17.02	23.99	72.63	20.71	21.15	63.68	13.77	21.68

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	4/18/2016	4/29/2016	5	10	
2	Site Preparation	Site Preparation	5/2/2016	5/3/2016	5	2	
3	Grading	Grading	5/4/2016	5/17/2016	5	10	
4	Building Construction	Building Construction	5/18/2016	10/12/2016	5	106	
5	Paving	Paving	10/13/2016	10/19/2016	5	5	
6	Architectural Coating	Architectural Coating	10/19/2016	10/25/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.81

Acres of Grading (Grading Phase): 0.81

Acres of Paving: 0

Residential Indoor: 20,278; Residential Outdoor: 6,759; Non-Residential Indoor: 17,984; Non-Residential Outdoor: 5,995 (Architectural Coating – sqft)

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	74.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	16.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Demolition - 2016**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	8.6000e-004	9.8600e-003	0.0119	3.0000e-005	6.2000e-004	1.5000e-004	7.7000e-004	1.7000e-004	1.3000e-004	3.0000e-004	0.0000	2.4299	2.4299	2.0000e-005	0.0000	2.4302
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	2.3000e-004	3.3000e-004	3.0300e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3655	0.3655	2.0000e-005	0.0000	0.3660
Total	1.0900e-003	0.0102	0.0150	3.0000e-005	1.0200e-003	1.5000e-004	1.1700e-003	2.8000e-004	1.3000e-004	4.1000e-004	0.0000	2.7954	2.7954	4.0000e-005	0.0000	2.7962

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					3.6200e-003	0.0000	3.6200e-003	5.5000e-004	0.0000	5.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005	4.0200e-003	4.0200e-003	4.0200e-003	3.8400e-003	3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	6.5600e-003	0.0562	0.0435	6.0000e-005	3.6200e-003	4.0200e-003	7.6400e-003	5.5000e-004	3.8400e-003	4.3900e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369

3.2 Demolition - 2016

Mitigated 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															
Hauling	8.6000e-004	9.8600e-003	0.0119	3.0000e-005	6.2000e-004	1.5000e-004	7.7000e-004	1.7000e-004	1.3000e-004	3.0000e-004	0.0000	2.4299	2.4299	2.0000e-005	0.0000	2.4302
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	2.3000e-004	3.3000e-004	3.0300e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3655	0.3655	2.0000e-005	0.0000	0.3660
Total	1.0900e-003	0.0102	0.0150	3.0000e-005	1.0200e-003	1.5000e-004	1.1700e-003	2.8000e-004	1.3000e-004	4.1000e-004	0.0000	2.7954	2.7954	4.0000e-005	0.0000	2.7962

3.3 Site Preparation - 2016

Unmitigated 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															
Fugitive Dust					4.3000e-004	0.0000	4.3000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3600e-003	0.0136	7.3400e-003	1.0000e-005		8.3000e-004	8.3000e-004	7.7000e-004	7.7000e-004	7.7000e-004	0.0000	0.8828	0.8828	2.7000e-004	0.0000	0.8884
Total	1.3600e-003	0.0136	7.3400e-003	1.0000e-005	4.3000e-004	8.3000e-004	1.2600e-003	5.0000e-005	7.7000e-004	8.2000e-004	0.0000	0.8828	0.8828	2.7000e-004	0.0000	0.8884

3.3 Site Preparation - 2016

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	0.0000	0.0000	0.0000	0.0000	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	2.0000e-005	3.0000e-005	3.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0366	0.0366	0.0000	0.0000	0.0366
Total	2.0000e-005	3.0000e-005	3.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0366	0.0366	0.0000	0.0000	0.0366

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	1.3600e-003	0.0136	7.3400e-003	1.0000e-005	1.9000e-004	0.0000	1.9000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3600e-003	0.0136	7.3400e-003	1.0000e-005	8.3000e-004	8.3000e-004	8.3000e-004	7.7000e-004	7.7000e-004	7.7000e-004	0.0000	0.8828	0.8828	2.7000e-004	0.0000	0.8884
Total	1.3600e-003	0.0136	7.3400e-003	1.0000e-005	1.9000e-004	8.3000e-004	1.0200e-003	2.0000e-005	7.7000e-004	7.9000e-004	0.0000	0.8828	0.8828	2.7000e-004	0.0000	0.8884

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO ₂	Fugitive PM ₁₀	Exhaust PM ₁₀	PM ₁₀ Total	Fugitive PM _{2.5}	Exhaust PM _{2.5}	PM _{2.5} Total	Bio- CO ₂	NBio- CO ₂	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
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	2.0000e-005	3.0000e-005	3.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0366	0.0366	0.0000	0.0000	0.0366
Total	2.0000e-005	3.0000e-005	3.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0366	0.0366	0.0000	0.0000	0.0366

3.4 Grading - 2016

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO ₂	Fugitive PM ₁₀	Exhaust PM ₁₀	PM ₁₀ Total	Fugitive PM _{2.5}	Exhaust PM _{2.5}	PM _{2.5} Total	Bio- CO ₂	NBio- CO ₂	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
tons/yr																
MT/yr																
Fugitive Dust					4.1900e-003	0.0000	4.1900e-003	2.1200e-003	0.0000	2.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005	4.0200e-003	4.0200e-003	4.0200e-003	3.8400e-003	3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	6.5600e-003	0.0562	0.0435	6.0000e-005	4.1900e-003	4.0200e-003	8.2100e-003	2.1200e-003	3.8400e-003	5.9600e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369

3.4 Grading - 2016**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																
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	2.3000e-004	3.3000e-004	3.0300e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3655	0.3655	2.0000e-005	0.0000	0.3660
Total	2.3000e-004	3.3000e-004	3.0300e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3655	0.3655	2.0000e-005	0.0000	0.3660

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																
Fugitive Dust					1.8900e-003	0.0000	1.8900e-003	9.5000e-004	0.0000	9.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005	4.0200e-003	4.0200e-003	4.0200e-003	3.8400e-003	3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	6.5600e-003	0.0562	0.0435	6.0000e-005	1.8900e-003	4.0200e-003	5.9100e-003	9.5000e-004	3.8400e-003	4.7900e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369

3.4 Grading - 2016

Mitigated Construction Off-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.3000e-004	3.3000e-004	3.0300e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3655	0.3655	2.0000e-005	0.0000	0.3660
Total	2.3000e-004	3.3000e-004	3.0300e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3655	0.3655	2.0000e-005	0.0000	0.3660

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	0.0732	0.7264	0.4353	6.0000e-004		0.0498	0.0498		0.0458	0.0458	0.0000	56.6659	56.6659	0.0171	0.0000	57.0248
Total	0.0732	0.7264	0.4353	6.0000e-004		0.0498	0.0498		0.0458	0.0458	0.0000	56.6659	56.6659	0.0171	0.0000	57.0248

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					
Off-Road	0.0732	0.7264	0.4352	6.0000e-004		0.0498	0.0498		0.0458	0.0458	0.0000	56.6658	56.6658	0.0171	0.0000	57.0247
Total	0.0732	0.7264	0.4352	6.0000e-004		0.0498	0.0498		0.0458	0.0458	0.0000	56.6658	56.6658	0.0171	0.0000	57.0247

Mitigated Construction On-Site

3.6 Paving - 2016**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																
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	2.1000e-004	3.0000e-004	2.7300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3289	0.3289	2.0000e-005	0.0000	0.3294
Total	2.1000e-004	3.0000e-004	2.7300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3289	0.3289	2.0000e-005	0.0000	0.3294

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																
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005	1.6500e-003	1.6500e-003	1.6500e-003	1.5300e-003	1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	4.7000e-004				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	3.2700e-003	0.0266	0.0182	3.0000e-005	1.6500e-003	1.6500e-003	1.6500e-003	1.5300e-003	1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717

3.6 Paving - 2016**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO ₂	Fugitive PM ₁₀	Exhaust PM ₁₀	PM ₁₀ Total	Fugitive PM _{2.5}	Exhaust PM _{2.5}	PM _{2.5} Total	Bio- CO ₂	NBio- CO ₂	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
tons/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	2.1000e-004	3.0000e-004	2.7300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3289	0.3289	2.0000e-005	0.0000	0.3294
Total	2.1000e-004	3.0000e-004	2.7300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3289	0.3289	2.0000e-005	0.0000	0.3294

3.7 Architectural Coating - 2016**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO ₂	Fugitive PM ₁₀	Exhaust PM ₁₀	PM ₁₀ Total	Fugitive PM _{2.5}	Exhaust PM _{2.5}	PM _{2.5} Total	Bio- CO ₂	NBio- CO ₂	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
tons/yr																
Archit. Coating	0.2956					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005	4.9000e-004	4.9000e-004	4.9000e-004	4.9000e-004	4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	0.2965	5.9300e-003	4.7100e-003	1.0000e-005	4.9000e-004	4.9000e-004	4.9000e-004	4.9000e-004	4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399

3.7 Architectural Coating - 2016

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																
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	5.0000e-005	4.5000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0548	0.0548	0.0000	0.0000	0.0549
Total	3.0000e-005	5.0000e-005	4.5000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0548	0.0548	0.0000	0.0000	0.0549

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																
Archit. Coating	0.2956					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005	4.9000e-004	4.9000e-004	4.9000e-004	4.9000e-004	4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	0.2965	5.9300e-003	4.7100e-003	1.0000e-005	4.9000e-004	4.9000e-004	4.9000e-004	4.9000e-004	4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399

3.7 Architectural Coating - 2016

Mitigated 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	0.0000	0.0000	0.0000	0.0000	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	5.0000e-005	4.5000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0548	0.0548	0.0000	0.0000	0.0549
Total	3.0000e-005	5.0000e-005	4.5000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0548	0.0548	0.0000	0.0000	0.0549

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive 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	0.2763	0.3906	2.2266	3.0700e-003	0.2103	4.4200e-003	0.2147	0.0563	4.0600e-003	0.0604	0.0000	232.5973	232.5973	0.0145	0.0000	232.9009
Unmitigated	0.2961	0.4847	2.6398	4.0700e-003	0.2789	5.6200e-003	0.2845	0.0747	5.1700e-003	0.0799	0.0000	304.1438	304.1438	0.0181	0.0000	304.5242

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate					Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT		Annual VMT		Annual VMT	
Condo/Townhouse	52.72	57.28	48.56	152,045		152,045		114,633	
Enclosed Parking with Elevator	0.00	0.00	0.00						
Parking Lot	0.00	0.00	0.00						
Strip Mall	425.47	403.58	196.13	599,969		599,969		452,342	
Total	478.19	460.86	244.69	752,014		752,014		566,976	

4.3 Trip Type Information

Land Use	Miles					Trip %					Trip Purpose %				
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by			
Condo/Townhouse	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3						
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0						
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0						
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15						

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.493611	0.037704	0.233719	0.143545	0.049889	0.006902	0.012747	0.004763	0.000945	0.002902	0.009119	0.000709	0.003446

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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	45.4763	45.4763	2.0600e-003	4.3000e-004	45.6514
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	50.1149	50.1149	2.2700e-003	4.7000e-004	50.3078
Natural Gas Mitigated	1.3000e-003	0.0112	5.7100e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	12.8283	12.8283	2.5000e-004	2.4000e-004	12.9064
Natural Gas Unmitigated	1.3000e-003	0.0112	5.7100e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	12.8283	12.8283	2.5000e-004	2.4000e-004	12.9064

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	46080	2.5000e-004	2.2600e-003	1.9000e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4590	2.4590	5.0000e-005	5.0000e-005	2.4740
Condo/Townhouse	194314	1.0500e-003	8.9500e-003	3.8100e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004	0.0000	10.3693	10.3693	2.0000e-004	1.9000e-004	10.4324
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		1.3000e-003	0.0112	5.7100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	12.8283	12.8283	2.5000e-004	2.4000e-004	12.9064

5.2 Energy by Land Use - NaturalGas

Mitigated

Land Use	Natural Gas Use kBtu/yr	ROG	NOx	CO	SO ₂	Fugitive PM ₁₀	Exhaust PM ₁₀	PM ₁₀ Total	Fugitive PM _{2.5}	Exhaust PM _{2.5}	PM _{2.5} Total	Bio- CO ₂	NBio- CO ₂	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
tons/yr																	
MT/yr																	
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	46080	2.5000e-004	2.2600e-003	1.9000e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4590	2.4590	5.0000e-005	5.0000e-005	2.4740
Condo/Townhouse	194314	1.0500e-003	8.9500e-003	3.8100e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004	0.0000	10.3693	10.3693	2.0000e-004	1.9000e-004	10.4324
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		1.3000e-003	0.0112	5.7100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	12.8283	12.8283	2.5000e-004	2.4000e-004	12.9064

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	34101.5	9.9205	4.5000e-004	9.0000e-005	9.9587
Enclosed Parking with Elevator	12940.8	3.7646	1.7000e-004	4.0000e-005	3.7791
Parking Lot	13770.2	4.0059	1.8000e-004	4.0000e-005	4.0213
Strip Mall	111456	32.4238	1.4700e-003	3.0000e-004	32.5487
Total		50.1149	2.2700e-003	4.7000e-004	50.3078

5.3 Energy by Land Use - Electricity

Mitigated

Land Use	Electricity Use	Total CO2	CH4	N2O	CO2e
	kWh/yr	MT/yr			
Condo/Townhouse	32499.8	9.4546	4.3000e-004	9.0000e-005	9.4910
Enclosed Parking with Elevator	11930.9	3.4708	1.6000e-004	3.0000e-005	3.4842
Parking Lot	11016.2	3.2047	1.4000e-004	3.0000e-005	3.2171
Strip Mall	100877	29.3462	1.3300e-003	2.7000e-004	29.4592
Total		45.4763	2.0600e-003	4.2000e-004	45.6514

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior
 Use Low VOC Paint - Residential Exterior
 Use Low VOC Paint - Non-Residential Interior
 Use Low VOC Paint - Non-Residential Exterior
 No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	0.1774	9.7000e-004	0.0837	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1354	0.1354	1.4000e-004	0.0000	0.1383
Unmitigated	0.1774	9.7000e-004	0.0837	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1354	0.1354	1.4000e-004	0.0000	0.1383

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	0.0296				0.0000		0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1452				0.0000		0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6300e-003	9.7000e-004	0.0837	0.0000	4.5000e-004	4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1354	0.1354	1.4000e-004	0.0000	0.1383
Total	0.1774	9.7000e-004	0.0837	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1354	0.1354	1.4000e-004	0.0000	0.1383

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	0.0296					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1452					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6300e-003	9.7000e-004	0.0837	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1354	0.1354	1.4000e-004	0.0000	0.1383
Total	0.1774	9.7000e-004	0.0837	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1354	0.1354	1.4000e-004	0.0000	0.1383

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System
- Use Water Efficient Landscaping

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.5955	0.0322	7.8000e-004	3.5135
Unmitigated	3.1091	0.0403	9.7000e-004	4.2568

7.2 Water by Land Use

Unmitigated

Land Use	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
	Mgal	MT/yr			
Condo/Townhouse	0.521232 / 0.328603	1.3204	0.0170	4.1000e-004	1.8059
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.711096 / 0.435833	1.7887	0.0232	5.6000e-004	2.4509
Total		3.1091	0.0403	9.7000e-004	4.2568

7.2 Water by Land Use

Mitigated

Land Use	Indoor/Outdoor Use	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
	Mgal	MT/yr			
Condo/Townhouse	0.416986 / 0.308558	1.1029	0.0136	3.3000e-004	1.4912
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.568877 / 0.409247	1.4927	0.0186	4.5000e-004	2.0224
Total		2.5955	0.0322	7.8000e-004	3.5136

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.5586	0.0330	0.0000	1.2519
Unmitigated	2.7932	0.1651	0.0000	6.2596

8.2 Waste by Land UseUnmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	3.68	0.7470	0.0442	0.0000	1.6741
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	10.08	2.0462	0.1209	0.0000	4.5856
Total		2.7932	0.1651	0.0000	6.2596

8.2 Waste by Land Use

Mitigated

Land Use	Waste Disposed tons	MT/yr			
		Total CO2	CH4	N2O	CO2e
Condo/Townhouse	0.736	0.1494	8.8300e-003	0.0000	0.3348
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.016	0.4092	0.0242	0.0000	0.9171
Total		0.5586	0.0330	0.0000	1.2519

9.0 Operational Offroad

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