

**APPENDIX D:  
AIR QUALITY AND  
GREENHOUSE GAS BACKGROUND AND MODELING  
DATA**





A P P E N D I X  
A I R Q U A L I T Y A N D G R E E N H O U S E G A S  
B A C K G R O U N D A N D M O D E L I N G D A T A

1 A S S U M P T I O N S A N D  
W O R K S H E E T S



## Construction Run - Phase 1: CalEEMod Land Use Inputs

All Information provided by Applicant, unless otherwise specified.

Type	Land Use Unit Amount	Land Use Size Metric	Lot Acreage	Land Use Square Feet	Population/ Employment <sup>1</sup>	Comments
General Office Building	100	1000bsf	2.30	100,000		
Government Civic Center	15	1000bsf	0.34	15,000		Conference Center
Library	2.5	1000bsf	0.06	2,500		
High Turnover (Sit Down Restaurant)	5	1000bsf	0.11	5,000		5000SF full service restaurant
High Turnover (Sit Down Restaurant)	8	1000bsf	0.18	8,000		8000SF full service restaurant
High Turnover (Sit Down Restaurant)	8	1000bsf	0.18	8,000		8000SF café/boat rental facility
Hotel	200	Room	2.47	107,550		
Apartments Low Rise	159	Units	1.18	51,585	436	
Condo/Townhouse	61	Units	0.47	20,665	167	
Park/Open Space	14.48	Acres	14.48	630,749		Open space acreage from TIA (2014).
Enclosed Parking with Elevator	800	Spaces	7.20	320,000		Parking Structure
Parking Lot	856	Spaces	5.30	342,400		Total 2057 spaces to be provided
	Total		34.3		603	

Source

<sup>1</sup> Based on a population of 2.74 person per household (US Census 2010)

Project Location: Alameda County  
 Climate Zone: 5  
 Operation Year: 2020  
 Land Use Setting: Urban  
 Utility Company: PG&E

### Demolition

Building Debris	Building SQFT	Tons	Comments
El Torito Restaurant	22,520		Source: Water Supply Assessment (2014)
Maintenance Building	940		
San Leandro Yacht Club	1,600		Source: Water Supply Assessment (2014)
Harbor Master Office	1,600		
Fuel pump/dock	130		
Mulford Branch Library	2,000		Source: Water Supply Assessment (2014)
Bathroom buildings	2,749		
<i>Building Debris Total</i>	<b>31,539</b>	<b>1,451</b>	<i>(see Demo Haul Trip Calculation Worksheet)</i>
Asphalt/Concrete Debris	SQFT	Tons	Comments
<i>Existing Parking Lot</i>		<b>6,352</b>	<i>(see Demo Haul Trip Calculation Worksheet)</i>
<i>Rip Rap</i>		<b>12,678</b>	Source: RipRap Repair San Leandro Marina - 1984
<i>Blue Dolphin Platform/Docks/Boat Slip</i>	<b>141,570</b>	<b>5,310</b>	Tons based on 100% moisture content, 2" thickness California Oak lumber. Source: Woodweb, Accessed July 2014, <a href="http://www.woodweb.com/cgi-bin/calculators/calc.pl">http://www.woodweb.com/cgi-bin/calculators/calc.pl</a>
<b>Total Demolition Volume</b>		<b>25,790</b>	<b>Tons</b>

**Construction Run - Phase 1: CalEEMod Land Use Inputs**

**For Construction HRA Only**

	Land Use Unit Amount	Land Use Size Metric	Lot Acreage	Land Use Square Feet	
Library	2.5	1000bsf	0.06	2,500	
Parking Lot	80	Spaces	1.24	32,000	80 spaces provided for Library
Total			1.30		
<i>Total Library Demolition Volume</i>		<b>403</b>	<b>Tons</b>	(see Demo Haul Trip Calculation Worksheet)	

**Soil Haul: Site Preparation**

Soil Haul	Total (CY)	Haul Truck Capacity (CY)	Total Round Trips	Total Trip Ends
Soil Export:	0	16	0	0
One-way haul distance:	N/A	miles		
Debris dumpsite:	N/A			

Assuming site balanced; no grading information.

**Architectural Coating**

Non-Residential Architectural Coating\*

Nonresidential Structures	Landuse SF	CalEEMod			
		Application Factor	Total Paintable Surface Area	Paintable Interior Area	Paintable Exterior Area
General Office Building	100,000	2	200,000	150,000	50,000
Government Civic Center	15,000	2	30,000	22,500	7,500
Library	2,500	2	5,000	3,750	1,250
High Turnover (Sit Down Restaurant)	5,000	2	10,000	7,500	2,500
High Turnover (Sit Down Restaurant)	8,000	2	16,000	12,000	4,000
High Turnover (Sit Down Restaurant)	8,000	2	16,000	12,000	4,000
Hotel	107,550	2	215,100	161,325	53,775
Park/Open Space	630,749	0	0	0	0
Enclosed Parking with Elevator	320,000	0.06	19,200	14,400	4,800
Parking Lot	342,400	0.06	20,544	0	20,544
<i>Total</i>	<i>1,539,199</i>		<i>531,844</i>	<i>383,475</i>	<i>148,369</i>

<b>For Construction HRA Only</b>		CalEEMod			
<u>Non-Residential Architectural Coating*</u>		Application Factor	Total Paintable Surface Area	Paintable Interior Area	Paintable Exterior Area
Library	2,500	2	5,000	3,750	1,250
Parking Lot	32,000	0.06	1,920	0	1,920
<i>Total</i>	<i>34,500</i>		<i>6,920</i>	<i>3,750</i>	<i>3,170</i>

\*CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively. Architectural coatings for the parking lot/structure are based on CalEEMod methodology applied to a surface parking lot (i.e., striping), in which 6% of surface area is painted. No painting assumed for park/open space.

## Construction Run - Phase 2: CalEEMod Land Use Inputs

All Information provided by Applicant, unless otherwise specified.

Type	Land Use Unit Amount	Land Use Size Metric	Lot Acreage	Land Use Square Feet	Population/ Employment <sup>1</sup>	Comments
General Office Building	50	1000bsf	1.15	50,000		Balance of office building space
Condo/Townhouse	64	Units	4.00	129,920	175	
Condo/Townhouse	28	Units	1.75	53,200	77	
Single Family	42	Units	4.34	98,400	115	
Parking Lot	401	Spaces	3.61	160,400		401 spaces provided in Phase 2
<b>Total</b>			<b>14.85</b>		<b>367</b>	

Source

1 Based on a population of 2.74 person per household (US Census 2010)

Project Location: Alameda County  
 Climate Zone: 5  
 Operation Year: 2020  
 Land Use Setting: Urban  
 Utility Company: PG&E

### Demolition

Building Debris	Building SQFT	Tons	Comments
Comcast Building	2,550		Source: Water Supply Assessment (2014)
Golf concession stands	490		Source: Water Supply Assessment (2014)
<b>Total</b>	<b>3,040</b>	<b>140</b>	<i>(see Demo Haul Trip Calculation Worksheet)</i>

### Soil Haul: Site Preparation

Soil Haul	Total (CY)	Haul Truck	
		Capacity (CY)	Total Round Trips Total Trip Ends
Soil Export:	0	16	0 0
One-way haul distance:	N/A	miles	
Debris dumpsite:	N/A		

Assuming site balanced; no grading information.

### Architectural Coating

#### Non-Residential Architectural Coating\*

Nonresidential Structures	Landuse SF	CalEEMod	Total Paintable Surface Area	Paintable Interior Area	Paintable Exterior Area
		Application Factor			
General Office Building	50,000	2	100,000	75,000	25,000
Parking Lot	160,400	0.06	9,624	0	9,624
<b>Total</b>	<b>210,400</b>		<b>109,624</b>	<b>75,000</b>	<b>34,624</b>

\*CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively. Architectural coatings for the parking lot/structure are based on CalEEMod methodology applied to a surface parking lot (i.e., striping), in which 6% of surface area is painted. No painting assumed for park/open space.

## Construction Activities and Schedule Assumptions

Construction Activities	Construction Schedule		
	Start Date	End Date	Duration (Workday)
<b>Phase 1</b>	1/1/2016	6/6/2019	895
Demolition	1/1/2016	3/10/2016	50
Site Preparation	3/11/2016	4/21/2016	30
Grading	4/22/2016	8/4/2016	75
Building Construction	8/5/2016	6/6/2019	740
Paving	3/22/2019	6/6/2019	55
Architectural Coating	3/22/2019	6/6/2019	55
<b>Phase 2</b>	6/7/2019	10/22/2020	360
Demolition	6/7/2019	7/4/2019	20
Site Preparation	7/5/2019	7/18/2019	10
Grading	7/19/2019	8/29/2019	30
Building Construction	8/30/2019	10/22/2020	300
Paving	9/25/2020	10/22/2020	20
Architectural Coating	9/25/2020	10/22/2020	20
<b>Phase 1 - Library (for Construction HRA)</b>	1/1/2016	11/11/2016	226
Demolition	1/1/2016	1/28/2016	20
Site Preparation	1/29/2016	2/1/2016	2
Grading	2/2/2016	2/5/2016	4
Building Construction	2/6/2016	11/11/2016	200
Paving	10/31/2016	11/11/2016	10
Architectural Coating	10/31/2016	11/11/2016	10

Notes: Construction activities are based on the preliminary information at the time of the analysis. Because detailed information on construction phasing and equipment use is not available, the analysis is based on the default construction schedule identified in CalEEMod. The CalEEMod phasing for the proposed Project is based on the Project land use characteristics and acreage disturbed during Phase 1 and Phase 2 construction activities. No overlap being Phase 1 and Phase 2 of construction is assumed.

Construction Activities	Annual Construction Days per Phase		
	Start Date	End Date	Duration (Workday)
Phase 1	1/1/2016	12/31/2016	261
Phase 1	1/1/2017	12/31/2017	260
Phase 1	1/1/2018	12/31/2018	261
Phase 1	1/1/2019	6/6/2019	113
Phase 2	6/7/2019	12/31/2019	148
Phase 2	1/1/2020	10/22/2020	212
Library (for Construction HRA)	1/1/2016	11/11/2016	226

**Criteria Air Pollutant Emissions Summary - Construction**

	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total		8.44	30.13	43.82	0.08	3.87	1.28	5.15	1.11	1.19	2.31
Total Mit		7.11	21.71	43.17	0.08	3.87	0.31	4.18	1.11	0.30	1.41

**Average Annual Emissions With Best Control Measures for Fugitive Dust**

	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016	Phase 1	0.98	8.38	9.10	0.01	0.84	0.37	1.22	0.27	0.34	0.61
2017		1.16	7.21	12.29	0.02	1.08	0.29	1.37	0.29	0.27	0.56
2018		1.04	6.46	11.51	0.02	1.08	0.25	1.33	0.30	0.23	0.53
2019		2.39	3.02	5.30	0.01	0.51	0.12	0.63	0.14	0.11	0.25
2019	Phase 2	0.27	2.48	2.42	0.00	0.17	0.12	0.30	0.07	0.12	0.18
2020		2.61	2.58	3.21	0.01	0.18	0.13	0.31	0.05	0.12	0.17

**FOR CONSTRUCTION HRA - Unmitigated Run**

	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Onsite	Phase 1	0.61	6.28	4.32	0.01	0.37	0.34	0.71	0.14	0.32	0.46
2016 Offsite		0.37	2.11	4.78	0.01	0.47	0.03	0.50	0.13	0.03	0.16
2017 Onsite		0.40	3.43	2.36	0.00	0.00	0.23	0.23	0.00	0.22	0.22
2017 Offsite		0.75	3.77	9.94	0.02	1.08	0.05	1.13	0.29	0.05	0.34
2018 Onsite		0.35	3.04	2.29	0.00	0.00	0.20	0.20	0.00	0.18	0.18
2018 Offsite		0.69	3.43	9.22	0.02	1.08	0.05	1.14	0.30	0.05	0.34
2019 Onsite		2.10	1.65	1.41	0.00	0.00	0.10	0.10	0.00	0.09	0.09
2019 Offsite		0.29	1.37	3.89	0.01	0.51	0.02	0.53	0.14	0.02	0.16
2019 Onsite	Phase 2	0.23	2.29	1.84	0.00	0.09	0.12	0.22	0.04	0.11	0.16
2019 Offsite		0.04	0.20	0.58	0.00	0.08	0.00	0.08	0.02	0.00	0.02
2020 Onsite		2.52	2.18	1.94	0.00	0.00	0.13	0.13	0.00	0.12	0.12
2020 Offsite		0.09	0.40	1.27	0.00	0.18	0.01	0.19	0.05	0.01	0.06
2016 Onsite	Library	0.39	2.48	1.78	0.00	0.01	0.16	0.17	0.00	0.16	0.16
2016 Offsite		0.01	0.08	0.18	0.00	0.02	0.00	0.02	0.00	0.00	0.01

**Migated Run**

	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Onsite Mit	Phase 1	0.15	2.63	3.37	0.01	0.37	0.03	0.40	0.14	0.03	0.17
2016 Offsite Mit		0.37	2.11	4.78	0.01	0.47	0.03	0.50	0.13	0.03	0.16
2017 Onsite Mit		0.14	1.85	2.37	0.00	0.00	0.03	0.03	0.00	0.03	0.03
2017 Offsite Mit		0.75	3.77	9.94	0.02	1.08	0.05	1.13	0.29	0.05	0.34
2018 Onsite Mit		0.13	1.85	2.37	0.00	0.00	0.03	0.03	0.00	0.03	0.03
2018 Offsite Mit		0.69	3.43	9.22	0.02	1.08	0.05	1.14	0.30	0.05	0.34
2019 Onsite Mit		1.99	1.14	1.54	0.00	0.00	0.02	0.02	0.00	0.02	0.02
2019 Offsite Mit		0.29	1.37	3.89	0.01	0.51	0.02	0.53	0.14	0.02	0.16
2019 Onsite Mit	Phase 2	0.08	1.35	1.74	0.00	0.09	0.01	0.11	0.04	0.01	0.06
2019 Offsite Mit		0.04	0.20	0.58	0.00	0.08	0.00	0.08	0.02	0.00	0.02
2020 Onsite Mit		2.38	1.61	2.10	0.00	0.00	0.02	0.02	0.00	0.02	0.02
2020 Offsite Mit		0.09	0.40	1.27	0.00	0.18	0.01	0.19	0.05	0.01	0.06
2016 Onsite Mit	Library	0.23	1.42	1.73	0.00	0.01	0.05	0.06	0.00	0.05	0.05
2016 Offsite Mit		0.01	0.08	0.18	0.00	0.02	0.00	0.02	0.00	0.00	0.01





**Criteria Air Pollutant Emissions Summary - Construction**

**Grading - 2016 - Phase 1**

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.14	0.00	0.14	0.06	0.00	0.06
Off-Road		0.24	2.81	1.84	0.00		0.13	0.13		0.12	0.12
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00
<b>Total</b>		<b>0.25</b>	<b>2.81</b>	<b>1.88</b>	<b>0.00</b>	<b>0.15</b>	<b>0.13</b>	<b>0.28</b>	<b>0.06</b>	<b>0.12</b>	<b>0.18</b>
<b>TOTAL ONSITE</b>		<b>0.24</b>	<b>2.81</b>	<b>1.84</b>	<b>0.00</b>	<b>0.14</b>	<b>0.13</b>	<b>0.27</b>	<b>0.06</b>	<b>0.12</b>	<b>0.18</b>
<b>TOTAL OFFSITE</b>		<b>0.00</b>	<b>0.00</b>	<b>0.04</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Mitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.14	0.00	0.14	0.06	0.00	0.06
Off-Road		0.06	1.12	1.42	0.00		0.01	0.01		0.01	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00
<b>Total</b>		<b>0.06</b>	<b>1.12</b>	<b>1.46</b>	<b>0.00</b>	<b>0.15</b>	<b>0.01</b>	<b>0.15</b>	<b>0.06</b>	<b>0.01</b>	<b>0.07</b>
<b>TOTAL ONSITE MIT</b>		<b>0.06</b>	<b>1.12</b>	<b>1.42</b>	<b>0.00</b>	<b>0.14</b>	<b>0.01</b>	<b>0.15</b>	<b>0.06</b>	<b>0.01</b>	<b>0.07</b>
<b>TOTAL OFFSITE MIT</b>		<b>0.00</b>	<b>0.00</b>	<b>0.04</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Building Construction - 2016 - Phase 1**

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.18	1.51	0.98	0.00		0.10	0.10		0.10	0.10
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.18	1.48	2.09	0.00	0.09	0.02	0.11	0.03	0.02	0.05
Worker		0.16	0.24	2.30	0.00	0.35	0.00	0.36	0.09	0.00	0.10
<b>Total</b>		<b>0.52</b>	<b>3.23</b>	<b>5.37</b>	<b>0.01</b>	<b>0.44</b>	<b>0.13</b>	<b>0.57</b>	<b>0.12</b>	<b>0.12</b>	<b>0.24</b>
<b>TOTAL ONSITE</b>		<b>0.18</b>	<b>1.51</b>	<b>0.98</b>	<b>0.00</b>	<b>0.00</b>	<b>0.10</b>	<b>0.10</b>	<b>0.00</b>	<b>0.10</b>	<b>0.10</b>
<b>TOTAL OFFSITE</b>		<b>0.34</b>	<b>1.72</b>	<b>4.39</b>	<b>0.01</b>	<b>0.44</b>	<b>0.03</b>	<b>0.47</b>	<b>0.12</b>	<b>0.02</b>	<b>0.14</b>

Mitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.06	0.76	0.97	0.00		0.01	0.01		0.01	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.18	1.48	2.09	0.00	0.09	0.02	0.11	0.03	0.02	0.05
Worker		0.16	0.24	2.30	0.00	0.35	0.00	0.36	0.09	0.00	0.10
<b>Total</b>		<b>0.40</b>	<b>2.47</b>	<b>5.36</b>	<b>0.01</b>	<b>0.44</b>	<b>0.04</b>	<b>0.48</b>	<b>0.12</b>	<b>0.04</b>	<b>0.16</b>
<b>TOTAL ONSITE MIT</b>		<b>0.06</b>	<b>0.76</b>	<b>0.97</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>
<b>TOTAL OFFSITE MIT</b>		<b>0.34</b>	<b>1.72</b>	<b>4.39</b>	<b>0.01</b>	<b>0.44</b>	<b>0.03</b>	<b>0.47</b>	<b>0.12</b>	<b>0.02</b>	<b>0.14</b>

**Criteria Air Pollutant Emissions Summary - Construction**

**Building Construction - 2017 - Phase 1**

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.40	3.43	2.36	0.00		0.23	0.23		0.22	0.22
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.40	3.25	4.93	0.01	0.22	0.05	0.26	0.06	0.04	0.11
Worker		0.35	0.52	5.01	0.01	0.86	0.01	0.87	0.23	0.01	0.24
<b>Total</b>		<b>1.16</b>	<b>7.21</b>	<b>12.29</b>	<b>0.02</b>	<b>1.08</b>	<b>0.29</b>	<b>1.37</b>	<b>0.29</b>	<b>0.27</b>	<b>0.56</b>
<b>TOTAL ONSITE</b>		<b>0.40</b>	<b>3.43</b>	<b>2.36</b>	<b>0.00</b>	<b>0.00</b>	<b>0.23</b>	<b>0.23</b>	<b>0.00</b>	<b>0.22</b>	<b>0.22</b>
<b>TOTAL OFFSITE</b>		<b>0.75</b>	<b>3.77</b>	<b>9.94</b>	<b>0.02</b>	<b>1.08</b>	<b>0.05</b>	<b>1.13</b>	<b>0.29</b>	<b>0.05</b>	<b>0.34</b>

Mitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.14	1.85	2.37	0.00		0.03	0.03		0.03	0.03
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.40	3.25	4.93	0.01	0.22	0.05	0.26	0.06	0.04	0.11
Worker		0.35	0.52	5.01	0.01	0.86	0.01	0.87	0.23	0.01	0.24
<b>Total</b>		<b>0.89</b>	<b>5.62</b>	<b>12.31</b>	<b>0.02</b>	<b>1.08</b>	<b>0.09</b>	<b>1.17</b>	<b>0.29</b>	<b>0.08</b>	<b>0.38</b>
<b>TOTAL ONSITE MIT</b>		<b>0.14</b>	<b>1.85</b>	<b>2.37</b>	<b>0.00</b>	<b>0.00</b>	<b>0.03</b>	<b>0.03</b>	<b>0.00</b>	<b>0.03</b>	<b>0.03</b>
<b>TOTAL OFFSITE MIT</b>		<b>0.75</b>	<b>3.77</b>	<b>9.94</b>	<b>0.02</b>	<b>1.08</b>	<b>0.05</b>	<b>1.13</b>	<b>0.29</b>	<b>0.05</b>	<b>0.34</b>

**Building Construction - 2018 - Phase 1**

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.35	3.04	2.29	0.00		0.20	0.20		0.18	0.18
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.38	2.96	4.74	0.01	0.22	0.04	0.26	0.06	0.04	0.10
Worker		0.31	0.47	4.48	0.01	0.87	0.01	0.87	0.23	0.01	0.24
<b>Total</b>		<b>1.04</b>	<b>6.46</b>	<b>11.51</b>	<b>0.02</b>	<b>1.08</b>	<b>0.25</b>	<b>1.33</b>	<b>0.30</b>	<b>0.23</b>	<b>0.53</b>
<b>TOTAL ONSITE</b>		<b>0.35</b>	<b>3.04</b>	<b>2.29</b>	<b>0.00</b>	<b>0.00</b>	<b>0.20</b>	<b>0.20</b>	<b>0.00</b>	<b>0.18</b>	<b>0.18</b>
<b>TOTAL OFFSITE</b>		<b>0.69</b>	<b>3.43</b>	<b>9.22</b>	<b>0.02</b>	<b>1.08</b>	<b>0.05</b>	<b>1.14</b>	<b>0.30</b>	<b>0.05</b>	<b>0.34</b>

Mitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.13	1.85	2.37	0.00		0.03	0.03		0.03	0.03
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.38	2.96	4.74	0.01	0.22	0.04	0.26	0.06	0.04	0.10
Worker		0.31	0.47	4.48	0.01	0.87	0.01	0.87	0.23	0.01	0.24
<b>Total</b>		<b>0.82</b>	<b>5.28</b>	<b>11.59</b>	<b>0.02</b>	<b>1.08</b>	<b>0.08</b>	<b>1.17</b>	<b>0.30</b>	<b>0.08</b>	<b>0.37</b>
<b>TOTAL ONSITE MIT</b>		<b>0.13</b>	<b>1.85</b>	<b>2.37</b>	<b>0.00</b>	<b>0.00</b>	<b>0.03</b>	<b>0.03</b>	<b>0.00</b>	<b>0.03</b>	<b>0.03</b>
<b>TOTAL OFFSITE MIT</b>		<b>0.69</b>	<b>3.43</b>	<b>9.22</b>	<b>0.02</b>	<b>1.08</b>	<b>0.05</b>	<b>1.14</b>	<b>0.30</b>	<b>0.05</b>	<b>0.34</b>







**Criteria Air Pollutant Emissions Summary - Construction**

**Building Construction - 2019 - Phase 2**

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.10	0.92	0.75	0.00		0.06	0.06		0.05	0.05
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.02	0.16	0.27	0.00	0.01	0.00	0.02	0.00	0.00	0.01
Worker		0.02	0.03	0.29	0.00	0.06	0.00	0.06	0.02	0.00	0.02
<b>Total</b>		<b>0.14</b>	<b>1.11</b>	<b>1.31</b>	<b>0.00</b>	<b>0.07</b>	<b>0.06</b>	<b>0.13</b>	<b>0.02</b>	<b>0.06</b>	<b>0.08</b>
<b>TOTAL ONSITE</b>		<b>0.10</b>	<b>0.92</b>	<b>0.75</b>	<b>0.00</b>	<b>0.00</b>	<b>0.06</b>	<b>0.06</b>	<b>0.00</b>	<b>0.05</b>	<b>0.05</b>
<b>TOTAL OFFSITE</b>		<b>0.04</b>	<b>0.19</b>	<b>0.55</b>	<b>0.00</b>	<b>0.07</b>	<b>0.00</b>	<b>0.08</b>	<b>0.02</b>	<b>0.00</b>	<b>0.02</b>

Mitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.04	0.62	0.80	0.00		0.01	0.01		0.01	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.02	0.16	0.27	0.00	0.01	0.00	0.02	0.00	0.00	0.01
Worker		0.02	0.03	0.29	0.00	0.06	0.00	0.06	0.02	0.00	0.02
<b>Total</b>		<b>0.08</b>	<b>0.81</b>	<b>1.35</b>	<b>0.00</b>	<b>0.07</b>	<b>0.01</b>	<b>0.09</b>	<b>0.02</b>	<b>0.01</b>	<b>0.03</b>
<b>TOTAL ONSITE MIT</b>		<b>0.04</b>	<b>0.62</b>	<b>0.80</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>
<b>TOTAL OFFSITE MIT</b>		<b>0.04</b>	<b>0.19</b>	<b>0.55</b>	<b>0.00</b>	<b>0.07</b>	<b>0.00</b>	<b>0.08</b>	<b>0.02</b>	<b>0.00</b>	<b>0.02</b>

**Building Construction - 2020 - Phase 2**

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.22	2.02	1.78	0.00		0.12	0.12		0.11	0.11
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.05	0.33	0.62	0.00	0.03	0.01	0.04	0.01	0.00	0.01
Worker		0.04	0.07	0.63	0.00	0.15	0.00	0.15	0.04	0.00	0.04
<b>Total</b>		<b>0.31</b>	<b>2.42</b>	<b>3.03</b>	<b>0.01</b>	<b>0.18</b>	<b>0.12</b>	<b>0.30</b>	<b>0.05</b>	<b>0.12</b>	<b>0.17</b>
<b>TOTAL ONSITE</b>		<b>0.22</b>	<b>2.02</b>	<b>1.78</b>	<b>0.00</b>	<b>0.00</b>	<b>0.12</b>	<b>0.12</b>	<b>0.00</b>	<b>0.11</b>	<b>0.11</b>
<b>TOTAL OFFSITE</b>		<b>0.09</b>	<b>0.40</b>	<b>1.25</b>	<b>0.00</b>	<b>0.18</b>	<b>0.01</b>	<b>0.18</b>	<b>0.05</b>	<b>0.01</b>	<b>0.05</b>

Mitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.10	1.49	1.92	0.00		0.02	0.02		0.02	0.02
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.05	0.33	0.62	0.00	0.03	0.01	0.04	0.01	0.00	0.01
Worker		0.04	0.07	0.63	0.00	0.15	0.00	0.15	0.04	0.00	0.04
<b>Total</b>		<b>0.19</b>	<b>1.89</b>	<b>3.17</b>	<b>0.01</b>	<b>0.18</b>	<b>0.03</b>	<b>0.21</b>	<b>0.05</b>	<b>0.03</b>	<b>0.08</b>
<b>TOTAL ONSITE MIT</b>		<b>0.10</b>	<b>1.49</b>	<b>1.92</b>	<b>0.00</b>	<b>0.00</b>	<b>0.02</b>	<b>0.02</b>	<b>0.00</b>	<b>0.02</b>	<b>0.02</b>
<b>TOTAL OFFSITE MIT</b>		<b>0.09</b>	<b>0.40</b>	<b>1.25</b>	<b>0.00</b>	<b>0.18</b>	<b>0.01</b>	<b>0.18</b>	<b>0.05</b>	<b>0.01</b>	<b>0.05</b>







**Criteria Air Pollutant Emissions Summary - Construction**

**Library Grading - 2016 - Phase 1 (Construction HRA Only)**

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.04	0.03	0.00		0.00	0.00		0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>		<b>0.00</b>	<b>0.04</b>	<b>0.03</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>TOTAL ONSITE</b>		<b>0.00</b>	<b>0.04</b>	<b>0.03</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>TOTAL OFFSITE</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Mitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.01	0.02	0.00		0.00	0.00		0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>		<b>0.00</b>	<b>0.01</b>	<b>0.02</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>TOTAL ONSITE MIT</b>		<b>0.00</b>	<b>0.01</b>	<b>0.02</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>TOTAL OFFSITE MIT</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Library Building Construction - 2016 - Phase 1 (Construction HRA Only)**

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.33	2.05	1.47	0.00		0.14	0.14		0.13	0.13
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.01	0.06	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.01	0.01	0.08	0.00	0.01	0.00	0.01	0.00	0.00	0.00
<b>Total</b>		<b>0.34</b>	<b>2.12</b>	<b>1.63</b>	<b>0.00</b>	<b>0.02</b>	<b>0.14</b>	<b>0.15</b>	<b>0.00</b>	<b>0.13</b>	<b>0.14</b>
<b>TOTAL ONSITE</b>		<b>0.33</b>	<b>2.05</b>	<b>1.47</b>	<b>0.00</b>	<b>0.00</b>	<b>0.14</b>	<b>0.14</b>	<b>0.00</b>	<b>0.13</b>	<b>0.13</b>
<b>TOTAL OFFSITE</b>		<b>0.01</b>	<b>0.07</b>	<b>0.16</b>	<b>0.00</b>	<b>0.02</b>	<b>0.00</b>	<b>0.02</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>

Mitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.20	1.24	1.48	0.00		0.05	0.05		0.05	0.05
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.01	0.06	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.01	0.01	0.08	0.00	0.01	0.00	0.01	0.00	0.00	0.00
<b>Total</b>		<b>0.21</b>	<b>1.31</b>	<b>1.65</b>	<b>0.00</b>	<b>0.02</b>	<b>0.05</b>	<b>0.07</b>	<b>0.00</b>	<b>0.05</b>	<b>0.05</b>
<b>TOTAL ONSITE MIT</b>		<b>0.20</b>	<b>1.24</b>	<b>1.48</b>	<b>0.00</b>	<b>0.00</b>	<b>0.05</b>	<b>0.05</b>	<b>0.00</b>	<b>0.05</b>	<b>0.05</b>
<b>TOTAL OFFSITE MIT</b>		<b>0.01</b>	<b>0.07</b>	<b>0.16</b>	<b>0.00</b>	<b>0.02</b>	<b>0.00</b>	<b>0.02</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>



## Average Daily Emission Calculations (lbs/day)

### Criteria Air Pollutant Emissions Summary - Construction

Annual emissions divided by total construction duration to obtain average daily emissions. Average construction emissions accounts for the duration of each construction phase and the time each piece of construction equipment is onsite.

#### Unmigated Run

Annual Average Emissions with Best Control Measures for Fugitive Dust											
	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total		13.46	48.02	69.84	0.13	6.17	2.04	8.21	1.77	1.90	3.67

#### FOR CONSTRUCTION HRA

##### Onsite Details with Best Control Measures for Fugitive Dust

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Onsite	Phase 1	4.65	48.10	33.07	0.04	2.86	2.606	5.46	1.07	2.42	3.487
2017 Onsite		3.10	26.41	18.13	0.03	0.00	1.782	1.78	0.00	1.67	1.673
2018 Onsite		2.67	23.26	17.53	0.03	0.00	1.494	1.49	0.00	1.40	1.405
2019 Onsite		37.16	29.13	25.01	0.04	0.00	1.742	1.74	0.00	1.63	1.634
2019 Onsite	Phase 2	3.11	30.91	24.86	0.04	1.28	1.641	2.92	0.60	1.53	2.127
2020 Onsite		23.78	20.54	18.33	0.03	0.00	1.193	1.19	0.00	1.12	1.121
2016 Onsite	Library	3.49	21.97	15.79	0.02	0.08	1.441	1.52	0.03	1.38	1.415

##### Offsite Details with Best Control Measures for Fugitive Dust

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Offsite	Phase 1	2.83	16.15	36.62	0.07	3.62	0.235	3.85	0.99	0.22	1.201
2017 Offsite		5.79	29.02	76.42	0.15	8.31	0.422	8.73	2.26	0.39	2.649
2018 Offsite		5.30	26.26	70.65	0.15	8.31	0.394	8.70	2.26	0.36	2.624
2019 Offsite		5.07	24.31	68.84	0.16	9.02	0.374	9.39	2.45	0.35	2.796
2019 Offsite	Phase 2	0.57	2.64	7.79	0.02	1.06	0.041	1.10	0.29	0.04	0.325
2020 Offsite		0.86	3.77	11.95	0.03	1.72	0.061	1.78	0.47	0.06	0.523
2016 Offsite	Library	0.12	0.67	1.59	0.00	0.16	0.010	0.17	0.04	0.01	0.052

#### Migated Run

#### FOR CONSTRUCTION HRA

##### Onsite Details with Best Control Measures for Fugitive Dust, Tier 3 Engines, Level 3 Diesel Particulate Filters

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Onsite	Phase 1	1.18	20.19	25.86	0.04	2.86	0.205	3.06	1.07	0.21	1.273
2017 Onsite		1.07	14.22	18.23	0.03	0.00	0.248	0.25	0.00	0.25	0.248
2018 Onsite		1.01	14.17	18.18	0.03	0.00	0.234	0.23	0.00	0.23	0.234
2019 Onsite		35.23	20.15	27.26	0.04	0.00	0.270	0.27	0.00	0.27	0.270
2019 Onsite	Phase 2	1.06	18.28	23.46	0.04	1.28	0.198	1.48	0.60	0.20	0.798
2020 Onsite		22.48	15.23	19.86	0.03	0.00	0.216	0.22	0.00	0.22	0.216
2016 Onsite	Library	2.04	12.57	15.28	0.02	0.08	0.448	0.52	0.03	0.45	0.481

##### Offsite Details with Best Control Measures for Fugitive Dust, Tier 3 Engines, Level 3 Diesel Particulate Filters

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Offsite	Phase 1	2.83	16.15	36.62	0.07	3.62	0.235	3.85	0.99	0.22	1.201
2017 Offsite		5.79	29.02	76.42	0.15	8.31	0.422	8.73	2.26	0.39	2.649
2018 Offsite		5.30	26.26	70.65	0.15	8.31	0.394	8.70	2.26	0.36	2.624
2019 Offsite		5.07	24.31	68.84	0.16	9.02	0.374	9.39	2.45	0.35	2.796
2019 Offsite	Phase 2	0.57	2.64	7.79	0.02	1.06	0.041	1.10	0.29	0.04	0.325
2020 Offsite		0.86	3.77	11.95	0.03	1.72	0.061	1.78	0.47	0.06	0.523
2016 Offsite	Library	0.12	0.67	1.59	0.00	0.16	0.010	0.17	0.04	0.01	0.052

**Operational Run - Existing Land Uses: CalEEMod Land Use Inputs**

All Information provided by Applicant, unless otherwise specified.

Type	Land Use Unit Amount	Land Use Size Metric	Lot Acreage	Land Use Square Feet	Population and Employment <sup>1</sup>	Comments
General Office Building	4.15	1000bsf	0.10	4,150	17	Water Supply Assessment, 2014
Library	2.0	1000bsf	0.05	2,000	8	WSA, 2014
High Turnover (Sit Down Restaurant)	22.52	1000bsf	0.52	22,520	45	El Torito Restaurant (WSA, 2014)
Health Club	1.6	1000bsf	0.04	1,600	6	San Leandro Yacht Club (WSA, 2014)
City Park	3.25	acres	3.25	141,570		Marina
Parking Lot	19.445	acres	19.45	846,868		Measured parking area
Total			23.4			
			Residents: <sup>2</sup>	384	Employees:	76
					Service Population:	460

Source

- 1 Based on a population of 1 employee per 250SF for office space/library/health club and 1 employee for 500 SF for restaurant (National Employment Matrix, US Bureau of Labor Statistics, 2012, Southern California Association of Governments).
- 2 Houseboat residents estimated as 2.74 resident per dwelling unit (466 boat slips, 30% occupied) .

*Existing Land Uses to remain*

*Horatio's Restaurant, The Marina Inn on San Francisco Bay, Spinnaker Yacht Club*

Project Location: Alameda County  
 Climate Zone: 5  
 Operation Year: 2014/2020  
 Land Use Setting: Urban  
 Utility Company: PG&E

**Architectural Coating**

Non-Residential Architectural Coating\*

Nonresidential Structures	Landuse SF	CalEEMod Application Factor	Total Paintable Surface Area	Paintable Interior Area	Paintable Exterior Area
General Office Building	4,150	2	8,300	6,225	2,075
Library	2,000	2	4,000	3,000	1,000
High Turnover (Sit Down Restaurant)	22,520	2	45,040	33,780	11,260
Health Club	1,600	2	3,200	2,400	800
City Park	141,570	0	0	0	0
Parking Lot	846,868	0.06	50,812	0	50,812
<b>Total</b>	<b>1,018,708</b>		<b>111,352</b>	<b>45,405</b>	<b>65,947</b>

\*CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively. Architectural coatings for the parking lot/structure are based on CalEEMod methodology applied to a surface parking lot (i.e., striping), in which 6% of surface area is painted. No painting assumed for Marina (City Park land use).

**Fireplaces:** No existing residential land uses, therefore no fireplaces.

**Energy:** Existing Modeled using "Historic" (2005 Building and Energy Efficiency) Standards.

**Operational Run - Existing Land Uses: CalEEMod Land Use Inputs**

**Water/Wastewater:**

	CalEEMod Defaults (gal/yr)			Water Supply Assessment (gal/yr) <sup>1</sup>		
	Indoor	Outdoor	indoor ratio <sup>2</sup>	Total	Indoor	Outdoor
City Park (Marina) <sup>3</sup>	0	3,872,314	NA	109,500	109,500	0
General Office Building	737,595	452,074	0.62	136,510	84,636	51,874
Health Club	94,629	57,998	0.62	122,640	76,037	46,603
High Turnover (Sit Down Restaurant)	6,835,579	436,314	0.94	4,907,060	4,612,636	294,424
Library	62,578	97,878	0.39	40,515	15,801	24,714
<b>TOTAL</b>				<b>5,316,225</b>		

<sup>1</sup> Source: Water Supply Assessment (WSA) - City of San Leandro Shhoreline Development Project, EBMUD 2014.

<sup>2</sup> Source: Indoor/Outdoor water use ratio based on CalEEMod defaults bases on *Waste Not, Want Not: The Potential for Urban Water Conservation in California* by the Pacific Institute for Studies in Development, Environment, and Security (Nov. 2003).

<sup>3</sup> Public bathroom water usage from the WSA applied to the Marina (City Park) land use as indoor water usage.

<sup>4</sup> Assumed 100% anaerobic treatment and digestion of wastewater.

**Waste: CalEEMod Defaults**

**Trip Generation and VMT \***

	Weekday Trips			Saturday Trips		
	Weekday Trips	Weekday Trips (minus internal trips)	Weekday Trip Rate	Saturday Trips	Saturday Trips (minus internal trips)	Saturday Trip Rate
City Park	675	666	204.93	879	875	269.23
General Office Building	117	115	27.82	40	40	9.59
Health Club	160	158	98.7	160	159	99.5
High Turnover (Sit Down Restaurant)	2,026	1999	88.77	2,125	2115	93.93
Library	252	249	124.32	93	93	46.29
<b>Total</b>	<b>3,230</b>	<b>2,521</b>		<b>3,297</b>	<b>2,407</b>	
Internal Trips	-43			-15		
<b>New External Trips</b>	<b>3,187</b>			<b>3,282</b>		
<b>Trip Capture %</b>	<b>1.3%</b>			<b>0.5%</b>		
Primary %	98.7%			99.5%		

\* Trip generation rates provided by Kittelson & Associates, Inc. (TIA, 2014), taking into account internal trip capture. CalEEMod defaults adjusted to reflect data provided by Kittelson & Assoc., and assume 100% of trips are primary trips to avoid double-counting of reductions.

**Operational Run - Full Project Buildout: CalEEMod Land Use Inputs**

All Information provided by Applicant, unless otherwise specified.

Type	Land Use Unit Amount	Land Use Size Metric	Lot Acreage	Land Use Square Feet	Population and Employment <sup>1</sup>	Comments
General Office Building	150	1000bsf	2.30	150,000	600	
Government Civic Center	15	1000bsf	0.34	15,000	60	Conference Center
Library	2.5	1000bsf	0.06	2,500	10	
High Turnover (Sit Down Restaurant)	5	1000bsf	0.11	5,000	20	5000SF full service restaurant
High Turnover (Sit Down Restaurant)	8	1000bsf	0.18	8,000	32	8000SF full service restaurant
High Turnover (Sit Down Restaurant)	8	1000bsf	0.18	8,000	56	8000SF café/boat rental facility
Hotel	200	Room	2.47	107,550	215	
Apartments Low Rise	159	Units	1.18	51,585	436	2010 Census (2.74 residents/Unit)
Condo/Townhouse	61	Units	0.47	20,665	167	2010 Census (2.74 residents/Unit)
Condo/Townhouse	64	Units	4.00	129,920	175	2010 Census (2.74 residents/Unit)
Condo/Townhouse	28	Units	1.75	53,200	77	2010 Census (2.74 residents/Unit)
Single Family	42	Units	4.34	98,400	115	2012 Census (2.74 residents/Unit)
Park/Open Space (City Park)	14.48	Acres	14.48	630,749	10	Acreage/empl. from TIA (2014)
Enclosed Parking with Elevator	800	Spaces	7.20	320,000		Parking Structure
Parking Lot	1,257	Spaces	8.91	502,800		Total 2057 spaces to be provided

Total  
 Residents: 970      Employees: 1003  
 Service Population: 1,973

Source

<sup>1</sup> Based on a population of 1 employee per 250SF for office space/library/conf. center, 1 employee for 500 SF for restaurant, and 0.9 employees per hotel room (National Employment Matrix, US Bureau of Labor Statistics, 2012, SCAG).

Project Location: Alameda County  
 Climate Zone: 5  
 Operation Year: 2020  
 Land Use Setting: Urban  
 Utility Company: PG&E

**Architectural Coating**  
Non-Residential Architectural Coating\*

Nonresidential Structures	Landuse SF	CalEEMod Application		Paintable		
		Factor	Total Paintable Surface Area	Interior Area	Exterior Area	
General Office Building	150,000	2	300,000	225,000	75,000	0
Government Civic Center	15,000	2	30,000	22,500	7,500	
Library	2,500	2	5,000	3,750	1,250	
High Turnover (Sit Down Restaurant)	5,000	2	10,000	7,500	2,500	
High Turnover (Sit Down Restaurant)	8,000	2	16,000	12,000	4,000	
High Turnover (Sit Down Restaurant)	8,000	2	16,000	12,000	4,000	
Hotel	107,550	2	215,100	161,325	53,775	
Park/Open Space (City Park)	630,749	0	0	0	0	
Enclosed Parking with Elevator	320,000	0.06	19,200	14,400	4,800	
Parking Lot	502,800	0.06	30,168	0	30,168	30,168
<b>Total</b>	<b>1,749,599</b>		<b>641,468</b>	<b>458,475</b>	<b>182,993</b>	<b>0</b>

\*CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively. Architectural coatings for the parking lot/structure are based on CalEEMod methodology applied to a surface parking lot (i.e., striping), in which 6% of surface area is painted. No painting assumed for park/open space.

**Fireplaces:** Assumes 100% gas fireplaces for residences.

**Energy:** The new residential are 25 more efficient than the 2008 Standards under 2013 Building and Energy Efficiency Standards while new non-residential buildings are 30 percent more efficient than the 2008 Standards than under the 2013 Building and Energy Efficiency Standards (effective July 1, 2014). Future cycle updates anticipated to be more efficient. For the purpose of modeling, buildings are assumed to be 25% more energy efficient than the 2008 standards in the CalEEMod program.

## Operational Run - Full Project Buildout: CalEEMod Land Use Inputs

### Water/Wastewater:

	CalEEMod Defaults (gal/yr)			Water Supply Assessment (gal/yr) <sup>1</sup>		
	Indoor	Outdoor	indoor ratio <sup>2</sup>	Total	Indoor	Outdoor
Apartments Low Rise	10,359,490	6,530,983	0.61	13,249,500	8,126,360	5,123,140
Park/Open Space (City Park) <sup>3</sup>	0	17,252,650	0.00	0	0	0
Condo/Townhouse	9,968,566	6,284,531	0.61	7,756,980	4,757,614	2,999,366
General Office Building	26,660,062	16,340,038	0.62	4,927,500	3,055,050	1,872,450
Government Civic Center	2,979,895	1,826,387	0.62	3,128,415	1,939,617	1,188,798
High Turnover (Sit Down Restaurant)	6,374,208	406,864	0.94	5,222,420	4,909,075	313,345
Hotel	5,073,354	563,706	0.90	9,731,995	8,758,796	973,200
Library	78,222	122,348	0.39	50,370	19,644	30,726
Single Family	2,736,469	1,725,165	0.61	3,541,230	2,171,954	1,369,276
<b>TOTAL</b>				<b>47,608,410</b>		

<sup>1</sup> Source: Water Supply Assessment (WSA) - City of San Leandro Shoreline Development Project, EBMUD 2014.

<sup>2</sup> Source: Indoor/Outdoor water use ratio based on CalEEMod defaults from *Waste Not, Want Not: The Potential for Urban Water Conservation in California* by the Pacific Institute for Studies in Development, Environment, and Security (Nov. 2003).

<sup>3</sup> No public restrooms or other significant water usage evaluated in WSA for the Open Space/Pedestrian Pier/Promenade areas.

<sup>4</sup> Assumed 100% anaerobic treatment and digestion of wastewater.

### Waste: CalEEMod Defaults

#### Trip Generation and VMT \*

	Weekday Trips			Saturday Trips		
	Weekday Trips	Weekday Trips (minus internal trips)	Weekday Trip Rate	Saturday Trips	Saturday Trips (minus internal trips)	Saturday Trip Rate
Apartments Low Rise	1,087	1,014	6.37	992	918	5.77
Park/Open Space (City Park)	27	25	1.74	329	304	21.02
Condo/Townhouse	931	868	5.67	982	909	5.94
General Office Building	1,787	1,666	11.11	336	311	2.07
Government Civic Center	1,500	1,399	93.24	1,500	1,388	92.53
Restaurants + Café	2,186	2,038	97.06	2,494	2,308	109.89
Hotel	1,417	1,321	6.61	1,629	1,507	7.54
Library	294	274	109.65	116	107	42.93
Single Family	473	441	10.50	453	419	9.98
<b>Total</b>	<b>9,702</b>	<b>9,046</b>		<b>8,831</b>	<b>8,171</b>	
Internal Trips		-656			-660	
<b>New External Trips</b>		<b>9,046</b>		<b>8,171</b>		
Trip Capture %	7%			7%		
Primary %	93%			93%		

\* Trip generation rates provided by Kittelson & Associates, Inc. (TIA, 2014), taking into account internal trip capture. CalEEMod defaults adjusted to reflect data provided by Kittelson & Assoc., and assume 100% of trips are primary trips to avoid double-counting of reductions.



**BOAT EMISSION RATES - SAN LEANDRO**

No. of slips	466 slips
% occupied <sup>1</sup>	0.3
No. of boats	140 boats

From Boat Registrations in the City of San Leandro<sup>2</sup>

		No. of boats
% sailboats	0.34	48
% motorboats	0.5	70
% liveaboards <sup>3</sup>	0.12	17
% commercial fishing boats	0.03	4
% passenger excursion - sportfishing	0.015	2

Total	140	
Boats with emissions	124	total boats - liveaboards

Vessel Type<sup>4</sup>

	Percent	Population	Load Factor	HP (avg)	Hours (ann. avg.)	HC EF		NOx EF		PM EF		SOx EF		CO EF	
						(g/bhp-hr)	g/yr	(g/bhp-hr)	g/yr	(g/bhp-hr)	g/yr	(g/bhp-hr)	g/yr	(g/bhp-hr)	g/yr
Gasoline - outboard - 2 stroke	0.3	37	0.21	95	48	107	18,110,078	1.1	186,178	7.1	1,201,697	0.04	6,770	213	36,050,903
Gasoline - inboard - 4 stroke	0.06	7	0.21	211	93	9.1	1,325,588	5.4	786,613	0.07	10,197	0.02	2,913	151	21,996,017
Gasoline - outboard - 4 stroke	0.01	1	0.21	36	48	9.1	19,455	5.4	11,545	0.07	150	0.02	43	151	322,828
Gasoline - stern drive - 4 stroke	0.19	24	0.21	211	73	9.1	3,294,965	5.4	1,955,254	0.07	25,346	0.02	7,242	151	54,674,687
Sailboat - auxiliary gasoline outboard - 2 stroke	0.1	12	0.32	27	10	107	357,436	1.1	3,675	7.1	23,718	0.04	134	213	711,531
Sailboat - auxiliary gasoline inboard - 4 stroke	0.1	12	0.32	27	10	9.1	30,399	5.4	18,039	0.07	234	0.02	67	151	504,419
Diesel - inboard	0.1	12	0.21	211	88	2.6	597,295	11.3	2,595,936	0.34	78,108	0.11	25,270	4.7	1,079,726
Sailboard - auxiliary diesel inboard - 4 stroke	0.09	11	0.32	27	10	2.6	7,817	11.3	33,973	0.34	1,022	0.11	331	4.7	14,130
Commercial fishing boats - diesel <sup>5</sup>	0.03	4	0.43	274	160	0.2	32,544	7.5	1,220,404	0.22	35,799	0.6	97,632	1.1	178,993
Passenger excursion - diesel <sup>5</sup>	0.02	2	0.43	335	200	0.2	33,158	7.5	1,243,416	0.22	36,474	0.6	99,473	1.1	182,368
Total	1	124				g/yr	23,808,734		8,055,032		1,412,743		239,875		115,715,600
						lb/yr	52,489		17,758		3,115		529		255,109
						lb/day	143.8		48.65		8.53		1.45		698.93
						tons/yr	26.2		8.88		1.56		0.26		127.55

(1) Percent occupied obtained from City of San Leandro (2014)

(2) Mix of boats in San Leandro Marina assumed based on boat registrations in the City

(3) Assumed based on similar percentage of liveaboards for marinas in southern California (Starcrest, 2005)

(4) Load factors, average horsepower, hours of operation, and emission factors from *Port of Los Angeles Baseline Air Emissions Inventory* (Starcrest, 2005)

(5) Hours for commercial fishing and passenger excursion boats accounts for time spent in harbor of 10% (Starcrest, 2005)

**BOAT EMISSION RATES - SAN LEANDRO**

**GREENHOUSE GAS EMISSIONS**

	Fuel sales - 2013 (gal) <sup>1</sup>	Emission Factors <sup>2</sup>											
		CO <sub>2</sub> (lb/1000 gal)	CH <sub>4</sub> (lb/1000 gal)	N <sub>2</sub> O (lb/1000 gal)	CO <sub>2</sub> Equiv. (lb/1000 gal)	CO <sub>2</sub> (lb/yr)	CH <sub>4</sub> (lb/yr)	N <sub>2</sub> O (lb/yr)	CO <sub>2</sub> Equiv. (lb/yr)	CO <sub>2</sub> (MT/yr)	CH <sub>4</sub> (MT/yr)	N <sub>2</sub> O (MT/yr)	CO <sub>2</sub> Equiv. (MT/yr)
Gasoline	2,257	20,020	1.4	1	20,202	45185.1	3.2	1.1	45595.9	20.5	0.0	0.0	20.7
Diesel	1,801	22,468	1.6	0.6	22,676	40464.9	2.9	1.1	40839.5	18.4	0.0	0.0	18.5
Total										38.9	0.003	0.001	39.2

(1) From fuel sales at San Leandro Marina dock (City of San Leandro, 2014)

(2) CO<sub>2</sub> emission factor from AP-42, Table 3.3-1, Gasoline Internal Combustion Engine  
CH<sub>4</sub> and N<sub>2</sub>O from US GHG, 2004, Annex A, Table 3-30.

**Criteria Air Pollutant Emissions Summary - Operations**

Existing Land Uses - 2014 Emission Rates											
	Tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		4.01	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Energy Use		0.02	0.20	0.17	0.00		0.02	0.02		0.02	0.02
Mobile Sources		2.90	9.51	32.35	0.05	3.36	0.15	3.51	0.90	0.14	1.04
Waste Generation							0.00	0.00		0.00	0.00
Water/Wastewater							0.00	0.00		0.00	0.00
Boats		26.2	8.88	127.6	0.26		1.56	1.56		1.56	1.56
<b>Total</b>		<b>33.17</b>	<b>18.59</b>	<b>160.07</b>	<b>0.32</b>	<b>3.36</b>	<b>1.72</b>	<b>5.08</b>	<b>0.90</b>	<b>1.71</b>	<b>2.61</b>

Existing Land Uses - 2020 Emission Rates											
	Tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		4.01	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Energy Use		0.02	0.20	0.17	0.00		0.02	0.02		0.02	0.02
Mobile Sources		1.80	5.45	20.30	0.05	3.37	0.08	3.45	0.90	0.08	0.98
Waste Generation							0.00	0.00		0.00	0.00
Water/Wastewater							0.00	0.00		0.00	0.00
Boats		26.2	8.88	127.6	0.26		1.56	1.56		1.56	1.56
<b>Total</b>		<b>32.08</b>	<b>14.52</b>	<b>148.02</b>	<b>0.32</b>	<b>3.37</b>	<b>1.66</b>	<b>5.02</b>	<b>0.90</b>	<b>1.65</b>	<b>2.55</b>

Proposed Project - 2020 Emission Rates											
	Tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		8.72	0.03	2.66	0.00		0.02	0.02		0.02	0.02
Energy Use		0.09	0.80	0.53	0.00		0.06	0.06		0.06	0.06
Mobile Sources		4.92	14.94	55.63	0.14	9.24	0.23	9.47	2.48	0.21	2.69
Waste Generation							0.00	0.00		0.00	0.00
Water/Wastewater							0.00	0.00		0.00	0.00
<b>Total</b>		<b>13.73</b>	<b>15.76</b>	<b>58.82</b>	<b>0.15</b>	<b>9.24</b>	<b>0.31</b>	<b>9.55</b>	<b>2.48</b>	<b>0.29</b>	<b>2.77</b>

Net GHG Emissions (2020 Project - 2020 Existing)											
	Tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		4.71	0.03	2.66	0.00	0.00	0.02	0.02	0.00	0.02	0.02
Energy Use		0.07	0.60	0.36	0.00	0.00	0.05	0.05	0.00	0.05	0.05
Mobile Sources		3.13	9.49	35.33	0.09	5.87	0.15	6.02	1.58	0.13	1.71
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boats		-26.24	-8.88	-127.55	-0.26	0.00	-1.56	-1.56	0.00	-1.56	-1.56
<b>Total</b>		<b>-18.34</b>	<b>1.24</b>	<b>-89.20</b>	<b>-0.17</b>	<b>5.87</b>	<b>-1.35</b>	<b>4.52</b>	<b>1.58</b>	<b>-1.36</b>	<b>0.22</b>
BAAQMD Threshold (Annual)		10	10 NA	NA	NA	NA	NA	15 NA	NA	NA	10
Exceeds Threshold		No	No NA	NA	NA	NA	NA	No NA	NA	NA	No

**Criteria Air Pollutant Emissions Summary - Operations**

Annual emissions divided by 365 days/year to obtain average daily emissions.

Existing Land Uses - 2014 Emission Rates											
	lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		21.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy Use		0.12	1.09	0.91	0.01	0.00	0.08	0.08	0.00	0.08	0.08
Mobile Sources		15.87	52.13	177.26	0.28	18.43	0.81	19.24	4.95	0.74	5.70
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boats		143.8	48.65	698.9	1.45		8.53	8.53		8.53	8.53
<b>Total</b>		<b>181.78</b>	<b>101.87</b>	<b>877.11</b>	<b>1.73</b>	<b>18.43</b>	<b>9.43</b>	<b>27.86</b>	<b>4.95</b>	<b>9.36</b>	<b>14.31</b>
Total Without Boats		37.97	53.21	178.18	0.28	18.43	0.89	19.33	4.95	0.83	5.78

Existing Land Uses - 2020 Emission Rates											
	lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		21.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy Use		0.12	1.09	0.91	0.01	0.00	0.08	0.08	0.00	0.08	0.08
Mobile Sources		9.85	29.85	111.22	0.28	18.45	0.46	18.91	4.96	0.42	5.38
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boats		143.8	48.65	698.9	1.45		8.53	8.53		8.53	8.53
<b>Total</b>		<b>175.76</b>	<b>79.58</b>	<b>811.06</b>	<b>1.74</b>	<b>18.45</b>	<b>9.07</b>	<b>27.52</b>	<b>4.96</b>	<b>9.04</b>	<b>14.00</b>
Total Without Boats		31.96	30.93	112.13	0.29	18.45	0.54	18.99	4.96	0.50	5.46

Proposed Project - 2020 Emission Rates											
	lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		47.78	0.17	14.58	0.00	0.00	0.09	0.09	0.00	0.09	0.09
Energy Use		0.49	4.36	2.88	0.03	0.00	0.34	0.34	0.00	0.34	0.34
Mobile Sources		26.99	81.85	304.82	0.77	50.62	1.26	51.88	13.60	1.16	14.76
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>		<b>75.26</b>	<b>86.38</b>	<b>322.28</b>	<b>0.80</b>	<b>50.62</b>	<b>1.69</b>	<b>52.31</b>	<b>13.60</b>	<b>1.59</b>	<b>15.20</b>

Net GHG Emissions (2020 Project - 2020 Existing)											
	lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		25.79	0.17	14.57	0.00	0.00	0.09	0.09	0.00	0.09	0.09
Energy Use		0.37	3.28	1.97	0.02	0.00	0.26	0.26	0.00	0.26	0.26
Mobile Sources		17.13	52.01	193.61	0.49	32.17	0.80	32.97	8.65	0.74	9.38
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boats		-143.81	-48.65	-698.93	-1.45	0.00	-8.53	-8.53	0.00	-8.53	-8.53
<b>Total</b>		<b>-100.51</b>	<b>6.80</b>	<b>-488.78</b>	<b>-0.94</b>	<b>32.17</b>	<b>-7.38</b>	<b>24.79</b>	<b>8.65</b>	<b>-7.45</b>	<b>1.20</b>
BAAQMD Threshold (Daily)		54	54	NA	NA	NA	NA	82	NA	NA	54
Exceeds Threshold		No	No	NA	NA	NA	NA	No	NA	NA	No
Net Increase without Boats		43.30	55.45	210.15	0.51	32.17	1.15	33.32	8.65	1.09	9.73

CalEEMod Output  
GHG Emissions

## Greenhouse Gas Emissions Summary

### Existing Land Uses - 2014 Emission Rates

	<b>MT/yr</b>	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	<b>CO2e</b>
Area Sources		0	0	0	0	0	<b>0</b>
Energy Use		0	661	661	0	0	<b>664</b>
Mobile Sources		0	4,294	4,294	0	0	<b>4,298</b>
Waste Generation		57	0	57	3	0	<b>129</b>
Water/Wastewater		2	8	10	0	0	<b>11</b>
Boat				39	0	0	<b>39</b>
Total		59	4,963	5,061	4	0	<b>5,141</b>
Total without Waste Generation		2	4,963	5,004	0	0	<b>5,013</b>
Service Population							<b>460</b>
MTCO2e/SP							<b>11.2</b>
MTCO2e/SP without Waste							<b>10.9</b>

### Proposed Project - 2020 Emission Rates

	<b>MT/yr</b>	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	<b>CO2e</b>
Area Sources		0	37	37	0	0	<b>37</b>
Energy Use		0	3,047	3,047	0	0	<b>3,060</b>
Mobile Sources		0	10,019	10,019	0	0	<b>10,027</b>
Waste Generation		158	0	158	9	0	<b>355</b>
Water/Wastewater		10	56	65	0	0	<b>73</b>
Total		168	13,159	13,327	10	0	<b>13,552</b>
Total without Waste Generation		10	13,159	13,168	0	0	<b>13,197</b>
Service Population							<b>1,973</b>
MTCO2e/SP							<b>6.9</b>
MTCO2e/SP without Waste							<b>6.7</b>

### Net GHG Emissions

	<b>MT/yr</b>	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	<b>CO2e</b>
Area Sources		0	37	37	0	0	<b>37</b>
Energy Use		0	2,385	2,385	0	0	<b>2,396</b>
Mobile Sources		0	5,726	5,726	0	0	<b>5,729</b>
Waste Generation		101	0	101	6	0	<b>226</b>
Water/Wastewater		8	48	55	0	0	<b>61</b>
Boat		0	0	-39	0	0	<b>-39</b>
Total		109	8,196	8,265	6	0	<b>8,410</b>
Total without Waste Generation		8	8,196	8,165	0	0	<b>8,184</b>

## Pavement Volume to Weight Conversion

Location	Total SF of Parking Lot	Assumed Thickness (foot) <sup>1</sup>	Parking Debris Volume (cu. ft)	Weight or Crushed Asphalt (lbs/cf) <sup>2</sup>	AC Mass (lbs)	AC Mass (tons)
Surface Lots	846,868	0.33	282289	45	12,703,020	6351.51
Library <sup>3</sup>	41,420	0.33	13807	45	621,300	310.65

Note: existing parking lot area estimated using Google Earth 7.1.2.2041

<sup>1</sup> *Pavements and Surface Materials*. Nonpoint Education for Municipal Officials, Technical Paper Number 8. University of Connecticut Cooperative Extension System, 1999.

<sup>2</sup> [http://www.reade.com/Particle\\_Briefings/spec\\_gra2.html](http://www.reade.com/Particle_Briefings/spec_gra2.html)

<sup>3</sup> Separation of Library demolition debris for Construction HRA only.

## Demo Haul Trip Calculation

### Conversion factors <sup>1</sup>

0.046 ton/SF	<<---CalEEMod Appendix A
1.2641662 tons/cy	<<---CalEEMod Appendix A
20 tons	<<---CalEEMod User's Guide
15.820705 CY	
0.7910352 CY/ton	

### Building Demolition Haul Trips (BSF and Haul Truck (CY) given)

Phase	BSF Demo	Tons/SF	Tons	Haul Truck (CY)	Haul Truck (Ton)	Round Trips	Total Trip Ends
1	31,539	0.046	1451	16	20.23	72	143
2	3,040	0.046	140	16	20.23	7	14
Library <sup>2</sup>	2,000	0.046	92	16	20.23	5	9

### Asphalt Demo Haul Trips (Asphalt in SF and Haul Truck in CY given)

Phase	Tons	Haul Truck (CY)	Haul Truck (Ton)	Round Trips	Total Trip Ends
1	6352	16	20.23	314	628
Library <sup>2</sup>	311	16	20.23	15	31

<sup>1</sup> CalEEMod User's Guide Version 2013.2.2, Appendix A

<sup>2</sup> Separation of Library demolition debris for Construction HRA only.

A P P E N D I X  
A I R Q U A L I T Y A N D G R E E N H O U S E G A S  
B A C K G R O U N D A N D M O D E L I N G D A T A

2 C A L E E M O D O U T P U T -  
C O N S T R U C T I O N P H A S E 1

.....



**San Leandro Shoreline - Construction Phase 1**  
Alameda County, Annual

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	100.00	1000sqft	2.30	100,000.00	0
Government (Civic Center)	15.00	1000sqft	0.34	15,000.00	0
Library	2.50	1000sqft	0.06	2,500.00	0
Enclosed Parking with Elevator	800.00	Space	7.20	320,000.00	0
Parking Lot	856.00	Space	5.30	342,400.00	0
City Park	14.48	Acre	14.48	630,748.80	0
High Turnover (Sit Down Restaurant)	5.00	1000sqft	0.11	5,000.00	0
High Turnover (Sit Down Restaurant)	8.00	1000sqft	0.18	8,000.00	0
High Turnover (Sit Down Restaurant)	8.00	1000sqft	0.18	8,000.00	0
Hotel	200.00	Room	2.47	107,550.00	0
Apartments Low Rise	159.00	Dwelling Unit	1.18	51,585.00	436
Condo/Townhouse	61.00	Dwelling Unit	0.47	20,665.00	167

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	63
<b>Climate Zone</b>	5	<b>Operational Year</b>	2020		
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

- Land Use - Project Description and TIA (Kittelson, 2014)
- Grading - Site balanced
- Architectural Coating - Modified non-residential interior/exterior painting areas
- Construction Off-road Equipment Mitigation - BAAQMD Best Control Measures

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	603,535.00	148,369.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	1,810,606.00	383,475.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstructionPhase	PhaseEndDate	8/22/2019	6/6/2019
tblConstructionPhase	PhaseEndDate	8/22/2019	6/6/2019
tblConstructionPhase	PhaseStartDate	6/7/2019	3/22/2019
tblConstructionPhase	PhaseStartDate	6/7/2019	3/22/2019
tblLandUse	LandUseSquareFeet	290,400.00	107,550.00
tblLandUse	LandUseSquareFeet	159,000.00	51,585.00
tblLandUse	LandUseSquareFeet	61,000.00	20,665.00
tblLandUse	LotAcreage	7.70	5.30
tblLandUse	LotAcreage	6.67	2.47
tblLandUse	LotAcreage	9.94	1.18
tblLandUse	LotAcreage	3.81	0.47
tblLandUse	Population	455.00	436.00
tblLandUse	Population	174.00	167.00
tblProjectCharacteristics	OperationalYear	2014	2020

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.9767	8.3846	9.0951	0.0145	1.3824	0.3707	1.7531	0.4635	0.3438	0.8073	0.0000	1,259.9229	1,259.9229	0.1631	0.0000	1,263.3479
2017	1.1558	7.2052	12.2919	0.0233	1.1677	0.2864	1.4541	0.3155	0.2679	0.5835	0.0000	1,898.8296	1,898.8296	0.1266	0.0000	1,901.4883
2018	1.0404	6.4628	11.5081	0.0233	1.1722	0.2463	1.4185	0.3168	0.2306	0.5473	0.0000	1,858.7774	1,858.7774	0.1221	0.0000	1,861.3409
2019	2.3858	3.0192	5.3026	0.0113	0.5509	0.1195	0.6704	0.1487	0.1117	0.2604	0.0000	882.6981	882.6981	0.0708	0.0000	884.1844
<b>Total</b>	<b>5.5587</b>	<b>25.0718</b>	<b>38.1976</b>	<b>0.0724</b>	<b>4.2732</b>	<b>1.0230</b>	<b>5.2962</b>	<b>1.2445</b>	<b>0.9540</b>	<b>2.1985</b>	<b>0.0000</b>	<b>5,900.2280</b>	<b>5,900.2280</b>	<b>0.4826</b>	<b>0.0000</b>	<b>5,910.3615</b>

#### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.9767	8.3846	9.0951	0.0145	0.8449	0.3707	1.2156	0.2678	0.3438	0.6115	0.0000	1,259.9223	1,259.9223	0.1631	0.0000	1,263.3473
2017	1.1558	7.2052	12.2919	0.0233	1.0800	0.2864	1.3664	0.2940	0.2679	0.5620	0.0000	1,898.8292	1,898.8292	0.1266	0.0000	1,901.4880
2018	1.0404	6.4628	11.5081	0.0233	1.0842	0.2463	1.3305	0.2952	0.2306	0.5257	0.0000	1,858.7770	1,858.7770	0.1221	0.0000	1,861.3405
2019	2.3858	3.0192	5.3026	0.0113	0.5094	0.1195	0.6290	0.1385	0.1117	0.2502	0.0000	882.6978	882.6978	0.0708	0.0000	884.1841
<b>Total</b>	<b>5.5587</b>	<b>25.0718</b>	<b>38.1976</b>	<b>0.0724</b>	<b>3.5185</b>	<b>1.0230</b>	<b>4.5415</b>	<b>0.9954</b>	<b>0.9540</b>	<b>1.9494</b>	<b>0.0000</b>	<b>5,900.2264</b>	<b>5,900.2264</b>	<b>0.4826</b>	<b>0.0000</b>	<b>5,910.3599</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>17.66</b>	<b>0.00</b>	<b>14.25</b>	<b>20.01</b>	<b>0.00</b>	<b>11.33</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 3.0 Construction Detail

### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	3/10/2016	5	50	
2	Site Preparation	Site Preparation	3/11/2016	4/21/2016	5	30	
3	Grading	Grading	4/22/2016	8/4/2016	5	75	
4	Building Construction	Building Construction	8/5/2016	6/6/2019	5	740	
5	Paving	Paving	3/22/2019	6/6/2019	5	55	
6	Architectural Coating	Architectural Coating	3/22/2019	6/6/2019	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 146,306; Residential Outdoor: 48,769; Non-Residential Indoor: 383,475; Non-Residential Outdoor: 148,369

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	2,550.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	793.00	276.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	159.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

### 3.2 Demolition - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2759	0.0000	0.2759	0.0418	0.0000	0.0418	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1072	1.1414	0.8758	1.0000e-003		0.0573	0.0573		0.0534	0.0534	0.0000	92.7434	92.7434	0.0252	0.0000	93.2731
<b>Total</b>	<b>0.1072</b>	<b>1.1414</b>	<b>0.8758</b>	<b>1.0000e-003</b>	<b>0.2759</b>	<b>0.0573</b>	<b>0.3332</b>	<b>0.0418</b>	<b>0.0534</b>	<b>0.0952</b>	<b>0.0000</b>	<b>92.7434</b>	<b>92.7434</b>	<b>0.0252</b>	<b>0.0000</b>	<b>93.2731</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0285	0.3825	0.3127	9.6000e-004	0.0215	5.0100e-003	0.0265	5.9100e-003	4.6100e-003	0.0105	0.0000	87.9831	87.9831	6.6000e-004	0.0000	87.9968
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	1.4300e-003	2.1200e-003	0.0205	4.0000e-005	3.4000e-003	3.0000e-005	3.4300e-003	9.1000e-004	3.0000e-005	9.3000e-004	0.0000	3.0961	3.0961	1.8000e-004	0.0000	3.0998
<b>Total</b>	<b>0.0299</b>	<b>0.3847</b>	<b>0.3331</b>	<b>1.0000e-003</b>	<b>0.0249</b>	<b>5.0400e-003</b>	<b>0.0300</b>	<b>6.8200e-003</b>	<b>4.6400e-003</b>	<b>0.0115</b>	<b>0.0000</b>	<b>91.0792</b>	<b>91.0792</b>	<b>8.4000e-004</b>	<b>0.0000</b>	<b>91.0966</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1180	0.0000	0.1180	0.0179	0.0000	0.0179	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1072	1.1414	0.8758	1.0000e-003		0.0573	0.0573		0.0534	0.0534	0.0000	92.7433	92.7433	0.0252	0.0000	93.2729
<b>Total</b>	<b>0.1072</b>	<b>1.1414</b>	<b>0.8758</b>	<b>1.0000e-003</b>	<b>0.1180</b>	<b>0.0573</b>	<b>0.1753</b>	<b>0.0179</b>	<b>0.0534</b>	<b>0.0713</b>	<b>0.0000</b>	<b>92.7433</b>	<b>92.7433</b>	<b>0.0252</b>	<b>0.0000</b>	<b>93.2729</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0285	0.3825	0.3127	9.6000e-004	0.0201	5.0100e-003	0.0251	5.5600e-003	4.6100e-003	0.0102	0.0000	87.9831	87.9831	6.6000e-004	0.0000	87.9968
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	1.4300e-003	2.1200e-003	0.0205	4.0000e-005	3.1400e-003	3.0000e-005	3.1700e-003	8.4000e-004	3.0000e-005	8.7000e-004	0.0000	3.0961	3.0961	1.8000e-004	0.0000	3.0998
<b>Total</b>	<b>0.0299</b>	<b>0.3847</b>	<b>0.3331</b>	<b>1.0000e-003</b>	<b>0.0232</b>	<b>5.0400e-003</b>	<b>0.0282</b>	<b>6.4000e-003</b>	<b>4.6400e-003</b>	<b>0.0110</b>	<b>0.0000</b>	<b>91.0792</b>	<b>91.0792</b>	<b>8.4000e-004</b>	<b>0.0000</b>	<b>91.0966</b>

### 3.3 Site Preparation - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0762	0.8195	0.6166	5.9000e-004		0.0441	0.0441		0.0406	0.0406	0.0000	55.3157	55.3157	0.0167	0.0000	55.6661
<b>Total</b>	<b>0.0762</b>	<b>0.8195</b>	<b>0.6166</b>	<b>5.9000e-004</b>	<b>0.2710</b>	<b>0.0441</b>	<b>0.3151</b>	<b>0.1490</b>	<b>0.0406</b>	<b>0.1895</b>	<b>0.0000</b>	<b>55.3157</b>	<b>55.3157</b>	<b>0.0167</b>	<b>0.0000</b>	<b>55.6661</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.0300e-003	1.5300e-003	0.0148	3.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2292	2.2292	1.3000e-004	0.0000	2.2319
<b>Total</b>	<b>1.0300e-003</b>	<b>1.5300e-003</b>	<b>0.0148</b>	<b>3.0000e-005</b>	<b>2.4500e-003</b>	<b>2.0000e-005</b>	<b>2.4700e-003</b>	<b>6.5000e-004</b>	<b>2.0000e-005</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>2.2292</b>	<b>2.2292</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>2.2319</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1159	0.0000	0.1159	0.0637	0.0000	0.0637	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0762	0.8195	0.6166	5.9000e-004		0.0441	0.0441		0.0406	0.0406	0.0000	55.3156	55.3156	0.0167	0.0000	55.6660
<b>Total</b>	<b>0.0762</b>	<b>0.8195</b>	<b>0.6166</b>	<b>5.9000e-004</b>	<b>0.1159</b>	<b>0.0441</b>	<b>0.1599</b>	<b>0.0637</b>	<b>0.0406</b>	<b>0.1042</b>	<b>0.0000</b>	<b>55.3156</b>	<b>55.3156</b>	<b>0.0167</b>	<b>0.0000</b>	<b>55.6660</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.0300e-003	1.5300e-003	0.0148	3.0000e-005	2.2600e-003	2.0000e-005	2.2800e-003	6.1000e-004	2.0000e-005	6.2000e-004	0.0000	2.2292	2.2292	1.3000e-004	0.0000	2.2319
<b>Total</b>	<b>1.0300e-003</b>	<b>1.5300e-003</b>	<b>0.0148</b>	<b>3.0000e-005</b>	<b>2.2600e-003</b>	<b>2.0000e-005</b>	<b>2.2800e-003</b>	<b>6.1000e-004</b>	<b>2.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>2.2292</b>	<b>2.2292</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>2.2319</b>

### 3.4 Grading - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2430	2.8055	1.8427	2.3100e-003		0.1344	0.1344		0.1237	0.1237	0.0000	218.2340	218.2340	0.0658	0.0000	219.6163
<b>Total</b>	<b>0.2430</b>	<b>2.8055</b>	<b>1.8427</b>	<b>2.3100e-003</b>	<b>0.3253</b>	<b>0.1344</b>	<b>0.4597</b>	<b>0.1349</b>	<b>0.1237</b>	<b>0.2585</b>	<b>0.0000</b>	<b>218.2340</b>	<b>218.2340</b>	<b>0.0658</b>	<b>0.0000</b>	<b>219.6163</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.8700e-003	4.2400e-003	0.0410	8.0000e-005	6.8100e-003	6.0000e-005	6.8700e-003	1.8100e-003	5.0000e-005	1.8600e-003	0.0000	6.1923	6.1923	3.5000e-004	0.0000	6.1996
<b>Total</b>	<b>2.8700e-003</b>	<b>4.2400e-003</b>	<b>0.0410</b>	<b>8.0000e-005</b>	<b>6.8100e-003</b>	<b>6.0000e-005</b>	<b>6.8700e-003</b>	<b>1.8100e-003</b>	<b>5.0000e-005</b>	<b>1.8600e-003</b>	<b>0.0000</b>	<b>6.1923</b>	<b>6.1923</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>6.1996</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1390	0.0000	0.1390	0.0577	0.0000	0.0577	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2430	2.8055	1.8427	2.3100e-003		0.1344	0.1344		0.1237	0.1237	0.0000	218.2337	218.2337	0.0658	0.0000	219.6161
<b>Total</b>	<b>0.2430</b>	<b>2.8055</b>	<b>1.8427</b>	<b>2.3100e-003</b>	<b>0.1390</b>	<b>0.1344</b>	<b>0.2735</b>	<b>0.0577</b>	<b>0.1237</b>	<b>0.1813</b>	<b>0.0000</b>	<b>218.2337</b>	<b>218.2337</b>	<b>0.0658</b>	<b>0.0000</b>	<b>219.6161</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.8700e-003	4.2400e-003	0.0410	8.0000e-005	6.2800e-003	6.0000e-005	6.3400e-003	1.6800e-003	5.0000e-005	1.7300e-003	0.0000	6.1923	6.1923	3.5000e-004	0.0000	6.1996
<b>Total</b>	<b>2.8700e-003</b>	<b>4.2400e-003</b>	<b>0.0410</b>	<b>8.0000e-005</b>	<b>6.2800e-003</b>	<b>6.0000e-005</b>	<b>6.3400e-003</b>	<b>1.6800e-003</b>	<b>5.0000e-005</b>	<b>1.7300e-003</b>	<b>0.0000</b>	<b>6.1923</b>	<b>6.1923</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>6.1996</b>

### 3.5 Building Construction - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1805	1.5108	0.9809	1.4200e-003		0.1043	0.1043		0.0980	0.0980	0.0000	128.3414	128.3414	0.0318	0.0000	129.0099
<b>Total</b>	<b>0.1805</b>	<b>1.5108</b>	<b>0.9809</b>	<b>1.4200e-003</b>		<b>0.1043</b>	<b>0.1043</b>		<b>0.0980</b>	<b>0.0980</b>	<b>0.0000</b>	<b>128.3414</b>	<b>128.3414</b>	<b>0.0318</b>	<b>0.0000</b>	<b>129.0099</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1753	1.4791	2.0948	3.5100e-003	0.0946	0.0223	0.1168	0.0272	0.0205	0.0476	0.0000	318.7812	318.7812	2.5800e-003	0.0000	318.8354
Worker	0.1608	0.2378	2.2956	4.5600e-003	0.3815	3.2600e-003	0.3847	0.1015	2.9900e-003	0.1045	0.0000	347.0066	347.0066	0.0196	0.0000	347.4191
<b>Total</b>	<b>0.3361</b>	<b>1.7170</b>	<b>4.3904</b>	<b>8.0700e-003</b>	<b>0.4761</b>	<b>0.0255</b>	<b>0.5016</b>	<b>0.1286</b>	<b>0.0235</b>	<b>0.1521</b>	<b>0.0000</b>	<b>665.7878</b>	<b>665.7878</b>	<b>0.0222</b>	<b>0.0000</b>	<b>666.2545</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1805	1.5108	0.9809	1.4200e-003		0.1043	0.1043		0.0980	0.0980	0.0000	128.3413	128.3413	0.0318	0.0000	129.0097
<b>Total</b>	<b>0.1805</b>	<b>1.5108</b>	<b>0.9809</b>	<b>1.4200e-003</b>		<b>0.1043</b>	<b>0.1043</b>		<b>0.0980</b>	<b>0.0980</b>	<b>0.0000</b>	<b>128.3413</b>	<b>128.3413</b>	<b>0.0318</b>	<b>0.0000</b>	<b>129.0097</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1753	1.4791	2.0948	3.5100e-003	0.0885	0.0223	0.1108	0.0257	0.0205	0.0461	0.0000	318.7812	318.7812	2.5800e-003	0.0000	318.8354
Worker	0.1608	0.2378	2.2956	4.5600e-003	0.3518	3.2600e-003	0.3551	0.0942	2.9900e-003	0.0972	0.0000	347.0066	347.0066	0.0196	0.0000	347.4191
<b>Total</b>	<b>0.3361</b>	<b>1.7170</b>	<b>4.3904</b>	<b>8.0700e-003</b>	<b>0.4403</b>	<b>0.0255</b>	<b>0.4658</b>	<b>0.1199</b>	<b>0.0235</b>	<b>0.1433</b>	<b>0.0000</b>	<b>665.7878</b>	<b>665.7878</b>	<b>0.0222</b>	<b>0.0000</b>	<b>666.2545</b>

### 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	0.4033	3.4327	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3228	311.3228	0.0766	0.0000	312.9319
<b>Total</b>	<b>0.4033</b>	<b>3.4327</b>	<b>2.3568</b>	<b>3.4900e-003</b>		<b>0.2316</b>	<b>0.2316</b>		<b>0.2175</b>	<b>0.2175</b>	<b>0.0000</b>	<b>311.3228</b>	<b>311.3228</b>	<b>0.0766</b>	<b>0.0000</b>	<b>312.9319</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4034	3.2504	4.9299	8.6000e-003	0.2320	0.0473	0.2792	0.0667	0.0435	0.1101	0.0000	768.7793	768.7793	6.0000e-003	0.0000	768.9053
Worker	0.3492	0.5220	5.0051	0.0112	0.9357	7.6100e-003	0.9433	0.2489	7.0100e-003	0.2559	0.0000	818.7275	818.7275	0.0440	0.0000	819.6512
<b>Total</b>	<b>0.7525</b>	<b>3.7725</b>	<b>9.9351</b>	<b>0.0198</b>	<b>1.1677</b>	<b>0.0549</b>	<b>1.2226</b>	<b>0.3155</b>	<b>0.0505</b>	<b>0.3660</b>	<b>0.0000</b>	<b>1,587.5068</b>	<b>1,587.5068</b>	<b>0.0500</b>	<b>0.0000</b>	<b>1,588.5564</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4033	3.4327	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3225	311.3225	0.0766	0.0000	312.9315
<b>Total</b>	<b>0.4033</b>	<b>3.4327</b>	<b>2.3568</b>	<b>3.4900e-003</b>		<b>0.2316</b>	<b>0.2316</b>		<b>0.2175</b>	<b>0.2175</b>	<b>0.0000</b>	<b>311.3225</b>	<b>311.3225</b>	<b>0.0766</b>	<b>0.0000</b>	<b>312.9315</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4034	3.2504	4.9299	8.6000e-003	0.2171	0.0473	0.2643	0.0630	0.0435	0.1064	0.0000	768.7793	768.7793	6.0000e-003	0.0000	768.9053
Worker	0.3492	0.5220	5.0051	0.0112	0.8629	7.6100e-003	0.8706	0.2310	7.0100e-003	0.2380	0.0000	818.7275	818.7275	0.0440	0.0000	819.6512
<b>Total</b>	<b>0.7525</b>	<b>3.7725</b>	<b>9.9351</b>	<b>0.0198</b>	<b>1.0800</b>	<b>0.0549</b>	<b>1.1349</b>	<b>0.2940</b>	<b>0.0505</b>	<b>0.3445</b>	<b>0.0000</b>	<b>1,587.5068</b>	<b>1,587.5068</b>	<b>0.0500</b>	<b>0.0000</b>	<b>1,588.5564</b>



### 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	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9844	308.9844	0.0756	0.0000	310.5723
<b>Total</b>	<b>0.3483</b>	<b>3.0355</b>	<b>2.2880</b>	<b>3.5000e-003</b>		<b>0.1950</b>	<b>0.1950</b>		<b>0.1833</b>	<b>0.1833</b>	<b>0.0000</b>	<b>308.9844</b>	<b>308.9844</b>	<b>0.0756</b>	<b>0.0000</b>	<b>310.5723</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3811	2.9562	4.7390	8.6100e-003	0.2329	0.0440	0.2768	0.0669	0.0404	0.1073	0.0000	758.4405	758.4405	5.9200e-003	0.0000	758.5647
Worker	0.3110	0.4711	4.4810	0.0112	0.9393	7.3600e-003	0.9467	0.2499	6.8100e-003	0.2567	0.0000	791.3525	791.3525	0.0405	0.0000	792.2038
<b>Total</b>	<b>0.6921</b>	<b>3.4273</b>	<b>9.2200</b>	<b>0.0198</b>	<b>1.1722</b>	<b>0.0513</b>	<b>1.2235</b>	<b>0.3168</b>	<b>0.0472</b>	<b>0.3640</b>	<b>0.0000</b>	<b>1,549.7930</b>	<b>1,549.7930</b>	<b>0.0465</b>	<b>0.0000</b>	<b>1,550.7685</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9841	308.9841	0.0756	0.0000	310.5720
<b>Total</b>	<b>0.3483</b>	<b>3.0355</b>	<b>2.2880</b>	<b>3.5000e-003</b>		<b>0.1950</b>	<b>0.1950</b>		<b>0.1833</b>	<b>0.1833</b>	<b>0.0000</b>	<b>308.9841</b>	<b>308.9841</b>	<b>0.0756</b>	<b>0.0000</b>	<b>310.5720</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3811	2.9562	4.7390	8.6100e-003	0.2179	0.0440	0.2619	0.0632	0.0404	0.1037	0.0000	758.4405	758.4405	5.9200e-003	0.0000	758.5647
Worker	0.3110	0.4711	4.4810	0.0112	0.8663	7.3600e-003	0.8736	0.2319	6.8100e-003	0.2387	0.0000	791.3525	791.3525	0.0405	0.0000	792.2038
<b>Total</b>	<b>0.6921</b>	<b>3.4273</b>	<b>9.2200</b>	<b>0.0198</b>	<b>1.0842</b>	<b>0.0513</b>	<b>1.1355</b>	<b>0.2952</b>	<b>0.0472</b>	<b>0.3424</b>	<b>0.0000</b>	<b>1,549.7930</b>	<b>1,549.7930</b>	<b>0.0465</b>	<b>0.0000</b>	<b>1,550.7685</b>

### 3.5 Building Construction - 2019

#### 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	0.1329	1.1845	0.9673	1.5100e-003		0.0726	0.0726		0.0683	0.0683	0.0000	132.2794	132.2794	0.0322	0.0000	132.9552
<b>Total</b>	<b>0.1329</b>	<b>1.1845</b>	<b>0.9673</b>	<b>1.5100e-003</b>		<b>0.0726</b>	<b>0.0726</b>		<b>0.0683</b>	<b>0.0683</b>	<b>0.0000</b>	<b>132.2794</b>	<b>132.2794</b>	<b>0.0322</b>	<b>0.0000</b>	<b>132.9552</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1508	1.1679	1.9411	3.7200e-003	0.1008	0.0177	0.1185	0.0290	0.0163	0.0452	0.0000	322.6951	322.6951	2.5000e-003	0.0000	322.7476
Worker	0.1225	0.1858	1.7606	4.8500e-003	0.4067	3.1100e-003	0.4098	0.1082	2.8900e-003	0.1111	0.0000	330.3167	330.3167	0.0163	0.0000	330.6594
<b>Total</b>	<b>0.2733</b>	<b>1.3536</b>	<b>3.7016</b>	<b>8.5700e-003</b>	<b>0.5075</b>	<b>0.0208</b>	<b>0.5283</b>	<b>0.1371</b>	<b>0.0191</b>	<b>0.1563</b>	<b>0.0000</b>	<b>653.0118</b>	<b>653.0118</b>	<b>0.0188</b>	<b>0.0000</b>	<b>653.4070</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1329	1.1845	0.9673	1.5100e-003		0.0726	0.0726		0.0683	0.0683	0.0000	132.2792	132.2792	0.0322	0.0000	132.9551
<b>Total</b>	<b>0.1329</b>	<b>1.1845</b>	<b>0.9673</b>	<b>1.5100e-003</b>		<b>0.0726</b>	<b>0.0726</b>		<b>0.0683</b>	<b>0.0683</b>	<b>0.0000</b>	<b>132.2792</b>	<b>132.2792</b>	<b>0.0322</b>	<b>0.0000</b>	<b>132.9551</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1508	1.1679	1.9411	3.7200e-003	0.0943	0.0177	0.1120	0.0274	0.0163	0.0436	0.0000	322.6951	322.6951	2.5000e-003	0.0000	322.7476
Worker	0.1225	0.1858	1.7606	4.8500e-003	0.3750	3.1100e-003	0.3782	0.1004	2.8900e-003	0.1033	0.0000	330.3167	330.3167	0.0163	0.0000	330.6594
<b>Total</b>	<b>0.2733</b>	<b>1.3536</b>	<b>3.7016</b>	<b>8.5700e-003</b>	<b>0.4694</b>	<b>0.0208</b>	<b>0.4902</b>	<b>0.1278</b>	<b>0.0191</b>	<b>0.1469</b>	<b>0.0000</b>	<b>653.0118</b>	<b>653.0118</b>	<b>0.0188</b>	<b>0.0000</b>	<b>653.4070</b>

### 3.6 Paving - 2019

#### 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	0.0392	0.4107	0.3950	6.1000e-004		0.0223	0.0223		0.0205	0.0205	0.0000	55.1085	55.1085	0.0174	0.0000	55.4747
Paving	6.9400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0462</b>	<b>0.4107</b>	<b>0.3950</b>	<b>6.1000e-004</b>		<b>0.0223</b>	<b>0.0223</b>		<b>0.0205</b>	<b>0.0205</b>	<b>0.0000</b>	<b>55.1085</b>	<b>55.1085</b>	<b>0.0174</b>	<b>0.0000</b>	<b>55.4747</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.1300e-003	1.7100e-003	0.0162	4.0000e-005	3.7400e-003	3.0000e-005	3.7700e-003	1.0000e-003	3.0000e-005	1.0200e-003	0.0000	3.0411	3.0411	1.5000e-004	0.0000	3.0443
<b>Total</b>	<b>1.1300e-003</b>	<b>1.7100e-003</b>	<b>0.0162</b>	<b>4.0000e-005</b>	<b>3.7400e-003</b>	<b>3.0000e-005</b>	<b>3.7700e-003</b>	<b>1.0000e-003</b>	<b>3.0000e-005</b>	<b>1.0200e-003</b>	<b>0.0000</b>	<b>3.0411</b>	<b>3.0411</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>3.0443</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0392	0.4107	0.3950	6.1000e-004		0.0223	0.0223		0.0205	0.0205	0.0000	55.1085	55.1085	0.0174	0.0000	55.4746
Paving	6.9400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0462</b>	<b>0.4107</b>	<b>0.3950</b>	<b>6.1000e-004</b>		<b>0.0223</b>	<b>0.0223</b>		<b>0.0205</b>	<b>0.0205</b>	<b>0.0000</b>	<b>55.1085</b>	<b>55.1085</b>	<b>0.0174</b>	<b>0.0000</b>	<b>55.4746</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.1300e-003	1.7100e-003	0.0162	4.0000e-005	3.4500e-003	3.0000e-005	3.4800e-003	9.2000e-004	3.0000e-005	9.5000e-004	0.0000	3.0411	3.0411	1.5000e-004	0.0000	3.0443
<b>Total</b>	<b>1.1300e-003</b>	<b>1.7100e-003</b>	<b>0.0162</b>	<b>4.0000e-005</b>	<b>3.4500e-003</b>	<b>3.0000e-005</b>	<b>3.4800e-003</b>	<b>9.2000e-004</b>	<b>3.0000e-005</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>3.0411</b>	<b>3.0411</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>3.0443</b>

### 3.7 Architectural Coating - 2019

#### 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	1.9131					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3300e-003	0.0505	0.0506	8.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	7.0215	7.0215	5.9000e-004	0.0000	7.0339
<b>Total</b>	<b>1.9204</b>	<b>0.0505</b>	<b>0.0506</b>	<b>8.0000e-005</b>		<b>3.5400e-003</b>	<b>3.5400e-003</b>		<b>3.5400e-003</b>	<b>3.5400e-003</b>	<b>0.0000</b>	<b>7.0215</b>	<b>7.0215</b>	<b>5.9000e-004</b>	<b>0.0000</b>	<b>7.0339</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0120	0.0181	0.1718	4.7000e-004	0.0397	3.0000e-004	0.0400	0.0106	2.8000e-004	0.0108	0.0000	32.2358	32.2358	1.5900e-003	0.0000	32.2693
<b>Total</b>	<b>0.0120</b>	<b>0.0181</b>	<b>0.1718</b>	<b>4.7000e-004</b>	<b>0.0397</b>	<b>3.0000e-004</b>	<b>0.0400</b>	<b>0.0106</b>	<b>2.8000e-004</b>	<b>0.0108</b>	<b>0.0000</b>	<b>32.2358</b>	<b>32.2358</b>	<b>1.5900e-003</b>	<b>0.0000</b>	<b>32.2693</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.9131					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3300e-003	0.0505	0.0506	8.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	7.0214	7.0214	5.9000e-004	0.0000	7.0339
<b>Total</b>	<b>1.9204</b>	<b>0.0505</b>	<b>0.0506</b>	<b>8.0000e-005</b>		<b>3.5400e-003</b>	<b>3.5400e-003</b>		<b>3.5400e-003</b>	<b>3.5400e-003</b>	<b>0.0000</b>	<b>7.0214</b>	<b>7.0214</b>	<b>5.9000e-004</b>	<b>0.0000</b>	<b>7.0339</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0120	0.0181	0.1718	4.7000e-004	0.0366	3.0000e-004	0.0369	9.8000e-003	2.8000e-004	0.0101	0.0000	32.2358	32.2358	1.5900e-003	0.0000	32.2693
<b>Total</b>	<b>0.0120</b>	<b>0.0181</b>	<b>0.1718</b>	<b>4.7000e-004</b>	<b>0.0366</b>	<b>3.0000e-004</b>	<b>0.0369</b>	<b>9.8000e-003</b>	<b>2.8000e-004</b>	<b>0.0101</b>	<b>0.0000</b>	<b>32.2358</b>	<b>32.2358</b>	<b>1.5900e-003</b>	<b>0.0000</b>	<b>32.2693</b>



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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	PhaseEndDate	8/22/2019	6/6/2019
tblConstructionPhase	PhaseEndDate	8/22/2019	6/6/2019
tblConstructionPhase	PhaseStartDate	6/7/2019	3/22/2019
tblConstructionPhase	PhaseStartDate	6/7/2019	3/22/2019
tblLandUse	LandUseSquareFeet	290,400.00	107,550.00
tblLandUse	LandUseSquareFeet	159,000.00	51,585.00
tblLandUse	LandUseSquareFeet	61,000.00	20,665.00
tblLandUse	LotAcreage	7.70	5.30
tblLandUse	LotAcreage	6.67	2.47
tblLandUse	LotAcreage	9.94	1.18
tblLandUse	LotAcreage	3.81	0.47
tblLandUse	Population	455.00	436.00
tblLandUse	Population	174.00	167.00
tblProjectCharacteristics	OperationalYear	2014	2020

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.9767	8.3846	9.0951	0.0145	1.3824	0.3707	1.7531	0.4635	0.3438	0.8073	0.0000	1,259.9229	1,259.9229	0.1631	0.0000	1,263.3479
2017	1.1558	7.2052	12.2919	0.0233	1.1677	0.2864	1.4541	0.3155	0.2679	0.5835	0.0000	1,898.8296	1,898.8296	0.1266	0.0000	1,901.4883
2018	1.0404	6.4628	11.5081	0.0233	1.1722	0.2463	1.4185	0.3168	0.2306	0.5473	0.0000	1,858.7774	1,858.7774	0.1221	0.0000	1,861.3409
2019	2.3858	3.0192	5.3026	0.0113	0.5509	0.1195	0.6704	0.1487	0.1117	0.2604	0.0000	882.6981	882.6981	0.0708	0.0000	884.1844
<b>Total</b>	<b>5.5587</b>	<b>25.0718</b>	<b>38.1976</b>	<b>0.0724</b>	<b>4.2732</b>	<b>1.0230</b>	<b>5.2962</b>	<b>1.2445</b>	<b>0.9540</b>	<b>2.1985</b>	<b>0.0000</b>	<b>5,900.2280</b>	<b>5,900.2280</b>	<b>0.4826</b>	<b>0.0000</b>	<b>5,910.3615</b>

#### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.5243	4.7422	8.1540	0.0145	0.8449	0.0574	0.9023	0.2678	0.0550	0.3227	0.0000	1,259.9223	1,259.9223	0.1631	0.0000	1,263.3473
2017	0.8911	5.6217	12.3052	0.0233	1.0800	0.0871	1.1671	0.2940	0.0827	0.3767	0.0000	1,898.8292	1,898.8292	0.1266	0.0000	1,901.4880
2018	0.8235	5.2759	11.5922	0.0233	1.0842	0.0818	1.1659	0.2952	0.0777	0.3728	0.0000	1,858.7770	1,858.7770	0.1221	0.0000	1,861.3405
2019	2.2768	2.5122	5.4297	0.0113	0.5094	0.0364	0.5458	0.1385	0.0347	0.1732	0.0000	882.6978	882.6978	0.0708	0.0000	884.1841
<b>Total</b>	<b>4.5158</b>	<b>18.1519</b>	<b>37.4810</b>	<b>0.0724</b>	<b>3.5185</b>	<b>0.2627</b>	<b>3.7812</b>	<b>0.9954</b>	<b>0.2500</b>	<b>1.2454</b>	<b>0.0000</b>	<b>5,900.2264</b>	<b>5,900.2264</b>	<b>0.4826</b>	<b>0.0000</b>	<b>5,910.3599</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>18.76</b>	<b>27.60</b>	<b>1.88</b>	<b>0.00</b>	<b>17.66</b>	<b>74.32</b>	<b>28.61</b>	<b>20.01</b>	<b>73.79</b>	<b>43.35</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 3.0 Construction Detail

### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	3/10/2016	5	50	
2	Site Preparation	Site Preparation	3/11/2016	4/21/2016	5	30	
3	Grading	Grading	4/22/2016	8/4/2016	5	75	
4	Building Construction	Building Construction	8/5/2016	6/6/2019	5	740	
5	Paving	Paving	3/22/2019	6/6/2019	5	55	
6	Architectural Coating	Architectural Coating	3/22/2019	6/6/2019	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 146,306; Residential Outdoor: 48,769; Non-Residential Indoor: 383,475; Non-Residential Outdoor: 148,369

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	2,550.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	793.00	276.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	159.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

- Use Cleaner Engines for Construction Equipment
- Use DPF for Construction Equipment
- Replace Ground Cover
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads



### 3.2 Demolition - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2759	0.0000	0.2759	0.0418	0.0000	0.0418	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1072	1.1414	0.8758	1.0000e-003		0.0573	0.0573		0.0534	0.0534	0.0000	92.7434	92.7434	0.0252	0.0000	93.2731
<b>Total</b>	<b>0.1072</b>	<b>1.1414</b>	<b>0.8758</b>	<b>1.0000e-003</b>	<b>0.2759</b>	<b>0.0573</b>	<b>0.3332</b>	<b>0.0418</b>	<b>0.0534</b>	<b>0.0952</b>	<b>0.0000</b>	<b>92.7434</b>	<b>92.7434</b>	<b>0.0252</b>	<b>0.0000</b>	<b>93.2731</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0285	0.3825	0.3127	9.6000e-004	0.0215	5.0100e-003	0.0265	5.9100e-003	4.6100e-003	0.0105	0.0000	87.9831	87.9831	6.6000e-004	0.0000	87.9968
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	1.4300e-003	2.1200e-003	0.0205	4.0000e-005	3.4000e-003	3.0000e-005	3.4300e-003	9.1000e-004	3.0000e-005	9.3000e-004	0.0000	3.0961	3.0961	1.8000e-004	0.0000	3.0998
<b>Total</b>	<b>0.0299</b>	<b>0.3847</b>	<b>0.3331</b>	<b>1.0000e-003</b>	<b>0.0249</b>	<b>5.0400e-003</b>	<b>0.0300</b>	<b>6.8200e-003</b>	<b>4.6400e-003</b>	<b>0.0115</b>	<b>0.0000</b>	<b>91.0792</b>	<b>91.0792</b>	<b>8.4000e-004</b>	<b>0.0000</b>	<b>91.0966</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1180	0.0000	0.1180	0.0179	0.0000	0.0179	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0237	0.4690	0.6316	1.0000e-003		3.3100e-003	3.3100e-003		3.3100e-003	3.3100e-003	0.0000	92.7433	92.7433	0.0252	0.0000	93.2729
<b>Total</b>	<b>0.0237</b>	<b>0.4690</b>	<b>0.6316</b>	<b>1.0000e-003</b>	<b>0.1180</b>	<b>3.3100e-003</b>	<b>0.1213</b>	<b>0.0179</b>	<b>3.3100e-003</b>	<b>0.0212</b>	<b>0.0000</b>	<b>92.7433</b>	<b>92.7433</b>	<b>0.0252</b>	<b>0.0000</b>	<b>93.2729</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0285	0.3825	0.3127	9.6000e-004	0.0201	5.0100e-003	0.0251	5.5600e-003	4.6100e-003	0.0102	0.0000	87.9831	87.9831	6.6000e-004	0.0000	87.9968
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	1.4300e-003	2.1200e-003	0.0205	4.0000e-005	3.1400e-003	3.0000e-005	3.1700e-003	8.4000e-004	3.0000e-005	8.7000e-004	0.0000	3.0961	3.0961	1.8000e-004	0.0000	3.0998
<b>Total</b>	<b>0.0299</b>	<b>0.3847</b>	<b>0.3331</b>	<b>1.0000e-003</b>	<b>0.0232</b>	<b>5.0400e-003</b>	<b>0.0282</b>	<b>6.4000e-003</b>	<b>4.6400e-003</b>	<b>0.0110</b>	<b>0.0000</b>	<b>91.0792</b>	<b>91.0792</b>	<b>8.4000e-004</b>	<b>0.0000</b>	<b>91.0966</b>

### 3.3 Site Preparation - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0762	0.8195	0.6166	5.9000e-004		0.0441	0.0441		0.0406	0.0406	0.0000	55.3157	55.3157	0.0167	0.0000	55.6661
<b>Total</b>	<b>0.0762</b>	<b>0.8195</b>	<b>0.6166</b>	<b>5.9000e-004</b>	<b>0.2710</b>	<b>0.0441</b>	<b>0.3151</b>	<b>0.1490</b>	<b>0.0406</b>	<b>0.1895</b>	<b>0.0000</b>	<b>55.3157</b>	<b>55.3157</b>	<b>0.0167</b>	<b>0.0000</b>	<b>55.6661</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.0300e-003	1.5300e-003	0.0148	3.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2292	2.2292	1.3000e-004	0.0000	2.2319
<b>Total</b>	<b>1.0300e-003</b>	<b>1.5300e-003</b>	<b>0.0148</b>	<b>3.0000e-005</b>	<b>2.4500e-003</b>	<b>2.0000e-005</b>	<b>2.4700e-003</b>	<b>6.5000e-004</b>	<b>2.0000e-005</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>2.2292</b>	<b>2.2292</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>2.2319</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1159	0.0000	0.1159	0.0637	0.0000	0.0637	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0143	0.2919	0.3510	5.9000e-004		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003	0.0000	55.3156	55.3156	0.0167	0.0000	55.6660
<b>Total</b>	<b>0.0143</b>	<b>0.2919</b>	<b>0.3510</b>	<b>5.9000e-004</b>	<b>0.1159</b>	<b>2.1600e-003</b>	<b>0.1180</b>	<b>0.0637</b>	<b>2.1600e-003</b>	<b>0.0658</b>	<b>0.0000</b>	<b>55.3156</b>	<b>55.3156</b>	<b>0.0167</b>	<b>0.0000</b>	<b>55.6660</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.0300e-003	1.5300e-003	0.0148	3.0000e-005	2.2600e-003	2.0000e-005	2.2800e-003	6.1000e-004	2.0000e-005	6.2000e-004	0.0000	2.2292	2.2292	1.3000e-004	0.0000	2.2319
<b>Total</b>	<b>1.0300e-003</b>	<b>1.5300e-003</b>	<b>0.0148</b>	<b>3.0000e-005</b>	<b>2.2600e-003</b>	<b>2.0000e-005</b>	<b>2.2800e-003</b>	<b>6.1000e-004</b>	<b>2.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>2.2292</b>	<b>2.2292</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>2.2319</b>

### 3.4 Grading - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2430	2.8055	1.8427	2.3100e-003		0.1344	0.1344		0.1237	0.1237	0.0000	218.2340	218.2340	0.0658	0.0000	219.6163
<b>Total</b>	<b>0.2430</b>	<b>2.8055</b>	<b>1.8427</b>	<b>2.3100e-003</b>	<b>0.3253</b>	<b>0.1344</b>	<b>0.4597</b>	<b>0.1349</b>	<b>0.1237</b>	<b>0.2585</b>	<b>0.0000</b>	<b>218.2340</b>	<b>218.2340</b>	<b>0.0658</b>	<b>0.0000</b>	<b>219.6163</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.8700e-003	4.2400e-003	0.0410	8.0000e-005	6.8100e-003	6.0000e-005	6.8700e-003	1.8100e-003	5.0000e-005	1.8600e-003	0.0000	6.1923	6.1923	3.5000e-004	0.0000	6.1996
<b>Total</b>	<b>2.8700e-003</b>	<b>4.2400e-003</b>	<b>0.0410</b>	<b>8.0000e-005</b>	<b>6.8100e-003</b>	<b>6.0000e-005</b>	<b>6.8700e-003</b>	<b>1.8100e-003</b>	<b>5.0000e-005</b>	<b>1.8600e-003</b>	<b>0.0000</b>	<b>6.1923</b>	<b>6.1923</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>6.1996</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1390	0.0000	0.1390	0.0577	0.0000	0.0577	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0567	1.1167	1.4229	2.3100e-003		7.4400e-003	7.4400e-003		7.4400e-003	7.4400e-003	0.0000	218.2337	218.2337	0.0658	0.0000	219.6161
<b>Total</b>	<b>0.0567</b>	<b>1.1167</b>	<b>1.4229</b>	<b>2.3100e-003</b>	<b>0.1390</b>	<b>7.4400e-003</b>	<b>0.1465</b>	<b>0.0577</b>	<b>7.4400e-003</b>	<b>0.0651</b>	<b>0.0000</b>	<b>218.2337</b>	<b>218.2337</b>	<b>0.0658</b>	<b>0.0000</b>	<b>219.6161</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.8700e-003	4.2400e-003	0.0410	8.0000e-005	6.2800e-003	6.0000e-005	6.3400e-003	1.6800e-003	5.0000e-005	1.7300e-003	0.0000	6.1923	6.1923	3.5000e-004	0.0000	6.1996
<b>Total</b>	<b>2.8700e-003</b>	<b>4.2400e-003</b>	<b>0.0410</b>	<b>8.0000e-005</b>	<b>6.2800e-003</b>	<b>6.0000e-005</b>	<b>6.3400e-003</b>	<b>1.6800e-003</b>	<b>5.0000e-005</b>	<b>1.7300e-003</b>	<b>0.0000</b>	<b>6.1923</b>	<b>6.1923</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>6.1996</b>

### 3.5 Building Construction - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1805	1.5108	0.9809	1.4200e-003		0.1043	0.1043		0.0980	0.0980	0.0000	128.3414	128.3414	0.0318	0.0000	129.0099
<b>Total</b>	<b>0.1805</b>	<b>1.5108</b>	<b>0.9809</b>	<b>1.4200e-003</b>		<b>0.1043</b>	<b>0.1043</b>		<b>0.0980</b>	<b>0.0980</b>	<b>0.0000</b>	<b>128.3414</b>	<b>128.3414</b>	<b>0.0318</b>	<b>0.0000</b>	<b>129.0099</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1753	1.4791	2.0948	3.5100e-003	0.0946	0.0223	0.1168	0.0272	0.0205	0.0476	0.0000	318.7812	318.7812	2.5800e-003	0.0000	318.8354
Worker	0.1608	0.2378	2.2956	4.5600e-003	0.3815	3.2600e-003	0.3847	0.1015	2.9900e-003	0.1045	0.0000	347.0066	347.0066	0.0196	0.0000	347.4191
<b>Total</b>	<b>0.3361</b>	<b>1.7170</b>	<b>4.3904</b>	<b>8.0700e-003</b>	<b>0.4761</b>	<b>0.0255</b>	<b>0.5016</b>	<b>0.1286</b>	<b>0.0235</b>	<b>0.1521</b>	<b>0.0000</b>	<b>665.7878</b>	<b>665.7878</b>	<b>0.0222</b>	<b>0.0000</b>	<b>666.2545</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0598	0.7572	0.9693	1.4200e-003		0.0139	0.0139		0.0139	0.0139	0.0000	128.3413	128.3413	0.0318	0.0000	129.0097
<b>Total</b>	<b>0.0598</b>	<b>0.7572</b>	<b>0.9693</b>	<b>1.4200e-003</b>		<b>0.0139</b>	<b>0.0139</b>		<b>0.0139</b>	<b>0.0139</b>	<b>0.0000</b>	<b>128.3413</b>	<b>128.3413</b>	<b>0.0318</b>	<b>0.0000</b>	<b>129.0097</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1753	1.4791	2.0948	3.5100e-003	0.0885	0.0223	0.1108	0.0257	0.0205	0.0461	0.0000	318.7812	318.7812	2.5800e-003	0.0000	318.8354
Worker	0.1608	0.2378	2.2956	4.5600e-003	0.3518	3.2600e-003	0.3551	0.0942	2.9900e-003	0.0972	0.0000	347.0066	347.0066	0.0196	0.0000	347.4191
<b>Total</b>	<b>0.3361</b>	<b>1.7170</b>	<b>4.3904</b>	<b>8.0700e-003</b>	<b>0.4403</b>	<b>0.0255</b>	<b>0.4658</b>	<b>0.1199</b>	<b>0.0235</b>	<b>0.1433</b>	<b>0.0000</b>	<b>665.7878</b>	<b>665.7878</b>	<b>0.0222</b>	<b>0.0000</b>	<b>666.2545</b>

### 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	0.4033	3.4327	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3228	311.3228	0.0766	0.0000	312.9319
<b>Total</b>	<b>0.4033</b>	<b>3.4327</b>	<b>2.3568</b>	<b>3.4900e-003</b>		<b>0.2316</b>	<b>0.2316</b>		<b>0.2175</b>	<b>0.2175</b>	<b>0.0000</b>	<b>311.3228</b>	<b>311.3228</b>	<b>0.0766</b>	<b>0.0000</b>	<b>312.9319</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4034	3.2504	4.9299	8.6000e-003	0.2320	0.0473	0.2792	0.0667	0.0435	0.1101	0.0000	768.7793	768.7793	6.0000e-003	0.0000	768.9053
Worker	0.3492	0.5220	5.0051	0.0112	0.9357	7.6100e-003	0.9433	0.2489	7.0100e-003	0.2559	0.0000	818.7275	818.7275	0.0440	0.0000	819.6512
<b>Total</b>	<b>0.7525</b>	<b>3.7725</b>	<b>9.9351</b>	<b>0.0198</b>	<b>1.1677</b>	<b>0.0549</b>	<b>1.2226</b>	<b>0.3155</b>	<b>0.0505</b>	<b>0.3660</b>	<b>0.0000</b>	<b>1,587.5068</b>	<b>1,587.5068</b>	<b>0.0500</b>	<b>0.0000</b>	<b>1,588.5564</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1386	1.8492	2.3701	3.4900e-003		0.0322	0.0322		0.0322	0.0322	0.0000	311.3225	311.3225	0.0766	0.0000	312.9315
<b>Total</b>	<b>0.1386</b>	<b>1.8492</b>	<b>2.3701</b>	<b>3.4900e-003</b>		<b>0.0322</b>	<b>0.0322</b>		<b>0.0322</b>	<b>0.0322</b>	<b>0.0000</b>	<b>311.3225</b>	<b>311.3225</b>	<b>0.0766</b>	<b>0.0000</b>	<b>312.9315</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4034	3.2504	4.9299	8.6000e-003	0.2171	0.0473	0.2643	0.0630	0.0435	0.1064	0.0000	768.7793	768.7793	6.0000e-003	0.0000	768.9053
Worker	0.3492	0.5220	5.0051	0.0112	0.8629	7.6100e-003	0.8706	0.2310	7.0100e-003	0.2380	0.0000	818.7275	818.7275	0.0440	0.0000	819.6512
<b>Total</b>	<b>0.7525</b>	<b>3.7725</b>	<b>9.9351</b>	<b>0.0198</b>	<b>1.0800</b>	<b>0.0549</b>	<b>1.1349</b>	<b>0.2940</b>	<b>0.0505</b>	<b>0.3445</b>	<b>0.0000</b>	<b>1,587.5068</b>	<b>1,587.5068</b>	<b>0.0500</b>	<b>0.0000</b>	<b>1,588.5564</b>

### 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	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9844	308.9844	0.0756	0.0000	310.5723
<b>Total</b>	<b>0.3483</b>	<b>3.0355</b>	<b>2.2880</b>	<b>3.5000e-003</b>		<b>0.1950</b>	<b>0.1950</b>		<b>0.1833</b>	<b>0.1833</b>	<b>0.0000</b>	<b>308.9844</b>	<b>308.9844</b>	<b>0.0756</b>	<b>0.0000</b>	<b>310.5723</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3811	2.9562	4.7390	8.6100e-003	0.2329	0.0440	0.2768	0.0669	0.0404	0.1073	0.0000	758.4405	758.4405	5.9200e-003	0.0000	758.5647
Worker	0.3110	0.4711	4.4810	0.0112	0.9393	7.3600e-003	0.9467	0.2499	6.8100e-003	0.2567	0.0000	791.3525	791.3525	0.0405	0.0000	792.2038
<b>Total</b>	<b>0.6921</b>	<b>3.4273</b>	<b>9.2200</b>	<b>0.0198</b>	<b>1.1722</b>	<b>0.0513</b>	<b>1.2235</b>	<b>0.3168</b>	<b>0.0472</b>	<b>0.3640</b>	<b>0.0000</b>	<b>1,549.7930</b>	<b>1,549.7930</b>	<b>0.0465</b>	<b>0.0000</b>	<b>1,550.7685</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1314	1.8486	2.3722	3.5000e-003		0.0305	0.0305		0.0305	0.0305	0.0000	308.9841	308.9841	0.0756	0.0000	310.5720
<b>Total</b>	<b>0.1314</b>	<b>1.8486</b>	<b>2.3722</b>	<b>3.5000e-003</b>		<b>0.0305</b>	<b>0.0305</b>		<b>0.0305</b>	<b>0.0305</b>	<b>0.0000</b>	<b>308.9841</b>	<b>308.9841</b>	<b>0.0756</b>	<b>0.0000</b>	<b>310.5720</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3811	2.9562	4.7390	8.6100e-003	0.2179	0.0440	0.2619	0.0632	0.0404	0.1037	0.0000	758.4405	758.4405	5.9200e-003	0.0000	758.5647
Worker	0.3110	0.4711	4.4810	0.0112	0.8663	7.3600e-003	0.8736	0.2319	6.8100e-003	0.2387	0.0000	791.3525	791.3525	0.0405	0.0000	792.2038
<b>Total</b>	<b>0.6921</b>	<b>3.4273</b>	<b>9.2200</b>	<b>0.0198</b>	<b>1.0842</b>	<b>0.0513</b>	<b>1.1355</b>	<b>0.2952</b>	<b>0.0472</b>	<b>0.3424</b>	<b>0.0000</b>	<b>1,549.7930</b>	<b>1,549.7930</b>	<b>0.0465</b>	<b>0.0000</b>	<b>1,550.7685</b>

### 3.5 Building Construction - 2019

#### 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	0.1329	1.1845	0.9673	1.5100e-003		0.0726	0.0726		0.0683	0.0683	0.0000	132.2794	132.2794	0.0322	0.0000	132.9552
<b>Total</b>	<b>0.1329</b>	<b>1.1845</b>	<b>0.9673</b>	<b>1.5100e-003</b>		<b>0.0726</b>	<b>0.0726</b>		<b>0.0683</b>	<b>0.0683</b>	<b>0.0000</b>	<b>132.2794</b>	<b>132.2794</b>	<b>0.0322</b>	<b>0.0000</b>	<b>132.9552</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1508	1.1679	1.9411	3.7200e-003	0.1008	0.0177	0.1185	0.0290	0.0163	0.0452	0.0000	322.6951	322.6951	2.5000e-003	0.0000	322.7476
Worker	0.1225	0.1858	1.7606	4.8500e-003	0.4067	3.1100e-003	0.4098	0.1082	2.8900e-003	0.1111	0.0000	330.3167	330.3167	0.0163	0.0000	330.6594
<b>Total</b>	<b>0.2733</b>	<b>1.3536</b>	<b>3.7016</b>	<b>8.5700e-003</b>	<b>0.5075</b>	<b>0.0208</b>	<b>0.5283</b>	<b>0.1371</b>	<b>0.0191</b>	<b>0.1563</b>	<b>0.0000</b>	<b>653.0118</b>	<b>653.0118</b>	<b>0.0188</b>	<b>0.0000</b>	<b>653.4070</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0537	0.7971	1.0241	1.5100e-003		0.0124	0.0124		0.0124	0.0124	0.0000	132.2792	132.2792	0.0322	0.0000	132.9551
<b>Total</b>	<b>0.0537</b>	<b>0.7971</b>	<b>1.0241</b>	<b>1.5100e-003</b>		<b>0.0124</b>	<b>0.0124</b>		<b>0.0124</b>	<b>0.0124</b>	<b>0.0000</b>	<b>132.2792</b>	<b>132.2792</b>	<b>0.0322</b>	<b>0.0000</b>	<b>132.9551</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1508	1.1679	1.9411	3.7200e-003	0.0943	0.0177	0.1120	0.0274	0.0163	0.0436	0.0000	322.6951	322.6951	2.5000e-003	0.0000	322.7476
Worker	0.1225	0.1858	1.7606	4.8500e-003	0.3750	3.1100e-003	0.3782	0.1004	2.8900e-003	0.1033	0.0000	330.3167	330.3167	0.0163	0.0000	330.6594
<b>Total</b>	<b>0.2733</b>	<b>1.3536</b>	<b>3.7016</b>	<b>8.5700e-003</b>	<b>0.4694</b>	<b>0.0208</b>	<b>0.4902</b>	<b>0.1278</b>	<b>0.0191</b>	<b>0.1469</b>	<b>0.0000</b>	<b>653.0118</b>	<b>653.0118</b>	<b>0.0188</b>	<b>0.0000</b>	<b>653.4070</b>

### 3.6 Paving - 2019

#### 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	0.0392	0.4107	0.3950	6.1000e-004		0.0223	0.0223		0.0205	0.0205	0.0000	55.1085	55.1085	0.0174	0.0000	55.4747
Paving	6.9400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0462</b>	<b>0.4107</b>	<b>0.3950</b>	<b>6.1000e-004</b>		<b>0.0223</b>	<b>0.0223</b>		<b>0.0205</b>	<b>0.0205</b>	<b>0.0000</b>	<b>55.1085</b>	<b>55.1085</b>	<b>0.0174</b>	<b>0.0000</b>	<b>55.4747</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.1300e-003	1.7100e-003	0.0162	4.0000e-005	3.7400e-003	3.0000e-005	3.7700e-003	1.0000e-003	3.0000e-005	1.0200e-003	0.0000	3.0411	3.0411	1.5000e-004	0.0000	3.0443
<b>Total</b>	<b>1.1300e-003</b>	<b>1.7100e-003</b>	<b>0.0162</b>	<b>4.0000e-005</b>	<b>3.7400e-003</b>	<b>3.0000e-005</b>	<b>3.7700e-003</b>	<b>1.0000e-003</b>	<b>3.0000e-005</b>	<b>1.0200e-003</b>	<b>0.0000</b>	<b>3.0411</b>	<b>3.0411</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>3.0443</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0151	0.3043	0.4655	6.1000e-004		2.4700e-003	2.4700e-003		2.4700e-003	2.4700e-003	0.0000	55.1085	55.1085	0.0174	0.0000	55.4746
Paving	6.9400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0220</b>	<b>0.3043</b>	<b>0.4655</b>	<b>6.1000e-004</b>		<b>2.4700e-003</b>	<b>2.4700e-003</b>		<b>2.4700e-003</b>	<b>2.4700e-003</b>	<b>0.0000</b>	<b>55.1085</b>	<b>55.1085</b>	<b>0.0174</b>	<b>0.0000</b>	<b>55.4746</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.1300e-003	1.7100e-003	0.0162	4.0000e-005	3.4500e-003	3.0000e-005	3.4800e-003	9.2000e-004	3.0000e-005	9.5000e-004	0.0000	3.0411	3.0411	1.5000e-004	0.0000	3.0443
<b>Total</b>	<b>1.1300e-003</b>	<b>1.7100e-003</b>	<b>0.0162</b>	<b>4.0000e-005</b>	<b>3.4500e-003</b>	<b>3.0000e-005</b>	<b>3.4800e-003</b>	<b>9.2000e-004</b>	<b>3.0000e-005</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>3.0411</b>	<b>3.0411</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>3.0443</b>



### 3.7 Architectural Coating - 2019

#### 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	1.9131					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3300e-003	0.0505	0.0506	8.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	7.0215	7.0215	5.9000e-004	0.0000	7.0339
<b>Total</b>	<b>1.9204</b>	<b>0.0505</b>	<b>0.0506</b>	<b>8.0000e-005</b>		<b>3.5400e-003</b>	<b>3.5400e-003</b>		<b>3.5400e-003</b>	<b>3.5400e-003</b>	<b>0.0000</b>	<b>7.0215</b>	<b>7.0215</b>	<b>5.9000e-004</b>	<b>0.0000</b>	<b>7.0339</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0120	0.0181	0.1718	4.7000e-004	0.0397	3.0000e-004	0.0400	0.0106	2.8000e-004	0.0108	0.0000	32.2358	32.2358	1.5900e-003	0.0000	32.2693
<b>Total</b>	<b>0.0120</b>	<b>0.0181</b>	<b>0.1718</b>	<b>4.7000e-004</b>	<b>0.0397</b>	<b>3.0000e-004</b>	<b>0.0400</b>	<b>0.0106</b>	<b>2.8000e-004</b>	<b>0.0108</b>	<b>0.0000</b>	<b>32.2358</b>	<b>32.2358</b>	<b>1.5900e-003</b>	<b>0.0000</b>	<b>32.2693</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.9131					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0373	0.0504	8.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	7.0214	7.0214	5.9000e-004	0.0000	7.0339
<b>Total</b>	<b>1.9147</b>	<b>0.0373</b>	<b>0.0504</b>	<b>8.0000e-005</b>		<b>3.9000e-004</b>	<b>3.9000e-004</b>		<b>3.9000e-004</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>7.0214</b>	<b>7.0214</b>	<b>5.9000e-004</b>	<b>0.0000</b>	<b>7.0339</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0120	0.0181	0.1718	4.7000e-004	0.0366	3.0000e-004	0.0369	9.8000e-003	2.8000e-004	0.0101	0.0000	32.2358	32.2358	1.5900e-003	0.0000	32.2693
<b>Total</b>	<b>0.0120</b>	<b>0.0181</b>	<b>0.1718</b>	<b>4.7000e-004</b>	<b>0.0366</b>	<b>3.0000e-004</b>	<b>0.0369</b>	<b>9.8000e-003</b>	<b>2.8000e-004</b>	<b>0.0101</b>	<b>0.0000</b>	<b>32.2358</b>	<b>32.2358</b>	<b>1.5900e-003</b>	<b>0.0000</b>	<b>32.2693</b>

A P P E N D I X  
A I R Q U A L I T Y A N D G R E E N H O U S E G A S  
B A C K G R O U N D A N D M O D E L I N G D A T A

3 C A L E E M O D O U T P U T -  
C O N S T R U C T I O N P H A S E 2

.....

**San Leandro Shoreline - Construction Phase 2**

Alameda County, Annual

**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	50.00	1000sqft	1.15	50,000.00	0
Parking Lot	401.00	Space	3.61	160,400.00	0
Condo/Townhouse	64.00	Dwelling Unit	4.00	129,920.00	175
Condo/Townhouse	28.00	Dwelling Unit	1.75	53,200.00	77
Single Family Housing	42.00	Dwelling Unit	4.34	98,400.00	115

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	63
<b>Climate Zone</b>	5	<b>Operational Year</b>	2020		
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	641.35	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

Land Use - Project Description and TIA (Kittelson, 2014)

Grading - Site balanced

Architectural Coating - Modified non-residential interior/exterior painting areas

Construction Off-road Equipment Mitigation - BAAQMD Best Control Measures

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	27,406.00	34,624.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	82,218.00	75,000.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstructionPhase	PhaseEndDate	11/19/2020	10/22/2020
tblConstructionPhase	PhaseEndDate	11/19/2020	10/22/2020
tblConstructionPhase	PhaseStartDate	10/23/2020	9/25/2020
tblConstructionPhase	PhaseStartDate	10/23/2020	9/25/2020
tblLandUse	LandUseSquareFeet	28,000.00	53,200.00
tblLandUse	LandUseSquareFeet	64,000.00	129,920.00
tblLandUse	LandUseSquareFeet	75,600.00	98,400.00
tblLandUse	LotAcreage	13.64	4.34
tblLandUse	Population	80.00	77.00
tblLandUse	Population	183.00	175.00
tblLandUse	Population	120.00	115.00
tblProjectCharacteristics	OperationalYear	2014	2020

## 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					
2019	0.2725	2.4828	2.4161	4.0600e-003	0.3068	0.1243	0.4311	0.1267	0.1157	0.2424	0.0000	341.9838	341.9838	0.0701	0.0000	343.4555
2020	2.6118	2.5776	3.2101	6.2800e-003	0.1967	0.1330	0.3296	0.0530	0.1248	0.1778	0.0000	498.8164	498.8164	0.0731	0.0000	500.3508
<b>Total</b>	<b>2.8843</b>	<b>5.0603</b>	<b>5.6262</b>	<b>0.0103</b>	<b>0.5035</b>	<b>0.2573</b>	<b>0.7607</b>	<b>0.1797</b>	<b>0.2405</b>	<b>0.4203</b>	<b>0.0000</b>	<b>840.8001</b>	<b>840.8001</b>	<b>0.1432</b>	<b>0.0000</b>	<b>843.8063</b>

#### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.2725	2.4827	2.4161	4.0600e-003	0.1733	0.1243	0.2976	0.0657	0.1157	0.1814	0.0000	341.9835	341.9835	0.0701	0.0000	343.4552
2020	2.6118	2.5776	3.2101	6.2800e-003	0.1818	0.1330	0.3148	0.0494	0.1248	0.1742	0.0000	498.8160	498.8160	0.0731	0.0000	500.3505
<b>Total</b>	<b>2.8843</b>	<b>5.0603</b>	<b>5.6262</b>	<b>0.0103</b>	<b>0.3552</b>	<b>0.2573</b>	<b>0.6124</b>	<b>0.1151</b>	<b>0.2405</b>	<b>0.3556</b>	<b>0.0000</b>	<b>840.7995</b>	<b>840.7995</b>	<b>0.1432</b>	<b>0.0000</b>	<b>843.8057</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>29.46</b>	<b>0.00</b>	<b>19.50</b>	<b>35.98</b>	<b>0.00</b>	<b>15.39</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 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	6/7/2019	7/4/2019	5	20	
2	Site Preparation	Site Preparation	7/5/2019	7/18/2019	5	10	
3	Grading	Grading	7/19/2019	8/29/2019	5	30	
4	Building Construction	Building Construction	8/30/2019	10/22/2020	5	300	
5	Paving	Paving	9/25/2020	10/22/2020	5	20	
6	Architectural Coating	Architectural Coating	9/25/2020	10/22/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 570,078; Residential Outdoor: 190,026; Non-Residential Indoor: 75,000; Non-Residential Outdoor: 34,624

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	14.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	165.00	49.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	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**

- Replace Ground Cover
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

### 3.2 Demolition - 2019

#### 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					1.5000e-003	0.0000	1.5000e-003	2.3000e-004	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.3394	0.3081	4.0000e-004		0.0165	0.0165		0.0153	0.0153	0.0000	35.6454	35.6454	9.9600e-003	0.0000	35.8545
<b>Total</b>	<b>0.0332</b>	<b>0.3394</b>	<b>0.3081</b>	<b>4.0000e-004</b>	<b>1.5000e-003</b>	<b>0.0165</b>	<b>0.0180</b>	<b>2.3000e-004</b>	<b>0.0153</b>	<b>0.0156</b>	<b>0.0000</b>	<b>35.6454</b>	<b>35.6454</b>	<b>9.9600e-003</b>	<b>0.0000</b>	<b>35.8545</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	1.5700e-003	1.5500e-003	1.0000e-005	1.2000e-004	2.0000e-005	1.4000e-004	3.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.4585	0.4585	0.0000	0.0000	0.4586
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	4.1000e-004	6.2000e-004	5.8900e-003	2.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1059	1.1059	5.0000e-005	0.0000	1.1070
<b>Total</b>	<b>5.5000e-004</b>	<b>2.1900e-003</b>	<b>7.4400e-003</b>	<b>3.0000e-005</b>	<b>1.4800e-003</b>	<b>3.0000e-005</b>	<b>1.5100e-003</b>	<b>3.9000e-004</b>	<b>3.0000e-005</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>1.5643</b>	<b>1.5643</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.5656</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.4000e-004	0.0000	6.4000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.3394	0.3081	4.0000e-004		0.0165	0.0165		0.0153	0.0153	0.0000	35.6454	35.6454	9.9600e-003	0.0000	35.8544
<b>Total</b>	<b>0.0332</b>	<b>0.3394</b>	<b>0.3081</b>	<b>4.0000e-004</b>	<b>6.4000e-004</b>	<b>0.0165</b>	<b>0.0171</b>	<b>1.0000e-004</b>	<b>0.0153</b>	<b>0.0154</b>	<b>0.0000</b>	<b>35.6454</b>	<b>35.6454</b>	<b>9.9600e-003</b>	<b>0.0000</b>	<b>35.8544</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	1.5700e-003	1.5500e-003	1.0000e-005	1.1000e-004	2.0000e-005	1.3000e-004	3.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.4585	0.4585	0.0000	0.0000	0.4586
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	4.1000e-004	6.2000e-004	5.8900e-003	2.0000e-005	1.2600e-003	1.0000e-005	1.2700e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.1059	1.1059	5.0000e-005	0.0000	1.1070
<b>Total</b>	<b>5.5000e-004</b>	<b>2.1900e-003</b>	<b>7.4400e-003</b>	<b>3.0000e-005</b>	<b>1.3700e-003</b>	<b>3.0000e-005</b>	<b>1.4000e-003</b>	<b>3.7000e-004</b>	<b>3.0000e-005</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>1.5643</b>	<b>1.5643</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.5656</b>

### 3.3 Site Preparation - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0201	0.2125	0.1740	2.0000e-004		0.0108	0.0108		9.8900e-003	9.8900e-003	0.0000	17.5845	17.5845	5.5600e-003	0.0000	17.7014
<b>Total</b>	<b>0.0201</b>	<b>0.2125</b>	<b>0.1740</b>	<b>2.0000e-004</b>	<b>0.0903</b>	<b>0.0108</b>	<b>0.1011</b>	<b>0.0497</b>	<b>9.8900e-003</b>	<b>0.0595</b>	<b>0.0000</b>	<b>17.5845</b>	<b>17.5845</b>	<b>5.5600e-003</b>	<b>0.0000</b>	<b>17.7014</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.5000e-004	3.7000e-004	3.5400e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.2000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.6635	0.6635	3.0000e-005	0.0000	0.6642
<b>Total</b>	<b>2.5000e-004</b>	<b>3.7000e-004</b>	<b>3.5400e-003</b>	<b>1.0000e-005</b>	<b>8.2000e-004</b>	<b>1.0000e-005</b>	<b>8.2000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.6635</b>	<b>0.6635</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.6642</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0386	0.0000	0.0386	0.0212	0.0000	0.0212	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0201	0.2125	0.1740	2.0000e-004		0.0108	0.0108		9.8900e-003	9.8900e-003	0.0000	17.5845	17.5845	5.5600e-003	0.0000	17.7013
<b>Total</b>	<b>0.0201</b>	<b>0.2125</b>	<b>0.1740</b>	<b>2.0000e-004</b>	<b>0.0386</b>	<b>0.0108</b>	<b>0.0494</b>	<b>0.0212</b>	<b>9.8900e-003</b>	<b>0.0311</b>	<b>0.0000</b>	<b>17.5845</b>	<b>17.5845</b>	<b>5.5600e-003</b>	<b>0.0000</b>	<b>17.7013</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.5000e-004	3.7000e-004	3.5400e-003	1.0000e-005	7.5000e-004	1.0000e-005	7.6000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6635	0.6635	3.0000e-005	0.0000	0.6642
<b>Total</b>	<b>2.5000e-004</b>	<b>3.7000e-004</b>	<b>3.5400e-003</b>	<b>1.0000e-005</b>	<b>7.5000e-004</b>	<b>1.0000e-005</b>	<b>7.6000e-004</b>	<b>2.0000e-004</b>	<b>1.0000e-005</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>0.6635</b>	<b>0.6635</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.6642</b>

### 3.4 Grading - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0734	0.8130	0.6043	9.3000e-004		0.0376	0.0376		0.0346	0.0346	0.0000	83.1613	83.1613	0.0263	0.0000	83.7139
<b>Total</b>	<b>0.0734</b>	<b>0.8130</b>	<b>0.6043</b>	<b>9.3000e-004</b>	<b>0.1301</b>	<b>0.0376</b>	<b>0.1677</b>	<b>0.0540</b>	<b>0.0346</b>	<b>0.0885</b>	<b>0.0000</b>	<b>83.1613</b>	<b>83.1613</b>	<b>0.0263</b>	<b>0.0000</b>	<b>83.7139</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	8.2000e-004	1.2400e-003	0.0118	3.0000e-005	2.7200e-003	2.0000e-005	2.7400e-003	7.2000e-004	2.0000e-005	7.4000e-004	0.0000	2.2117	2.2117	1.1000e-004	0.0000	2.2140
<b>Total</b>	<b>8.2000e-004</b>	<b>1.2400e-003</b>	<b>0.0118</b>	<b>3.0000e-005</b>	<b>2.7200e-003</b>	<b>2.0000e-005</b>	<b>2.7400e-003</b>	<b>7.2000e-004</b>	<b>2.0000e-005</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>2.2117</b>	<b>2.2117</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>2.2140</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0556	0.0000	0.0556	0.0231	0.0000	0.0231	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0734	0.8130	0.6043	9.3000e-004		0.0376	0.0376		0.0346	0.0346	0.0000	83.1612	83.1612	0.0263	0.0000	83.7138
<b>Total</b>	<b>0.0734</b>	<b>0.8130</b>	<b>0.6043</b>	<b>9.3000e-004</b>	<b>0.0556</b>	<b>0.0376</b>	<b>0.0932</b>	<b>0.0231</b>	<b>0.0346</b>	<b>0.0576</b>	<b>0.0000</b>	<b>83.1612</b>	<b>83.1612</b>	<b>0.0263</b>	<b>0.0000</b>	<b>83.7138</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	8.2000e-004	1.2400e-003	0.0118	3.0000e-005	2.5100e-003	2.0000e-005	2.5300e-003	6.7000e-004	2.0000e-005	6.9000e-004	0.0000	2.2117	2.2117	1.1000e-004	0.0000	2.2140
<b>Total</b>	<b>8.2000e-004</b>	<b>1.2400e-003</b>	<b>0.0118</b>	<b>3.0000e-005</b>	<b>2.5100e-003</b>	<b>2.0000e-005</b>	<b>2.5300e-003</b>	<b>6.7000e-004</b>	<b>2.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>2.2117</b>	<b>2.2117</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>2.2140</b>



### 3.5 Building Construction - 2019

#### 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	0.1035	0.9225	0.7533	1.1800e-003		0.0565	0.0565		0.0532	0.0532	0.0000	103.0140	103.0140	0.0251	0.0000	103.5404
<b>Total</b>	<b>0.1035</b>	<b>0.9225</b>	<b>0.7533</b>	<b>1.1800e-003</b>		<b>0.0565</b>	<b>0.0565</b>		<b>0.0532</b>	<b>0.0532</b>	<b>0.0000</b>	<b>103.0140</b>	<b>103.0140</b>	<b>0.0251</b>	<b>0.0000</b>	<b>103.5404</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0209	0.1615	0.2684	5.1000e-004	0.0139	2.4400e-003	0.0164	4.0000e-003	2.2500e-003	6.2500e-003	0.0000	44.6153	44.6153	3.5000e-004	0.0000	44.6225
Worker	0.0198	0.0301	0.2853	7.9000e-004	0.0659	5.0000e-004	0.0664	0.0175	4.7000e-004	0.0180	0.0000	53.5236	53.5236	2.6400e-003	0.0000	53.5792
<b>Total</b>	<b>0.0407</b>	<b>0.1916</b>	<b>0.5537</b>	<b>1.3000e-003</b>	<b>0.0798</b>	<b>2.9400e-003</b>	<b>0.0828</b>	<b>0.0215</b>	<b>2.7200e-003</b>	<b>0.0243</b>	<b>0.0000</b>	<b>98.1389</b>	<b>98.1389</b>	<b>2.9900e-003</b>	<b>0.0000</b>	<b>98.2017</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1035	0.9225	0.7533	1.1800e-003		0.0565	0.0565		0.0532	0.0532	0.0000	103.0139	103.0139	0.0251	0.0000	103.5402
<b>Total</b>	<b>0.1035</b>	<b>0.9225</b>	<b>0.7533</b>	<b>1.1800e-003</b>		<b>0.0565</b>	<b>0.0565</b>		<b>0.0532</b>	<b>0.0532</b>	<b>0.0000</b>	<b>103.0139</b>	<b>103.0139</b>	<b>0.0251</b>	<b>0.0000</b>	<b>103.5402</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0209	0.1615	0.2684	5.1000e-004	0.0130	2.4400e-003	0.0155	3.7800e-003	2.2500e-003	6.0300e-003	0.0000	44.6153	44.6153	3.5000e-004	0.0000	44.6225
Worker	0.0198	0.0301	0.2853	7.9000e-004	0.0608	5.0000e-004	0.0613	0.0163	4.7000e-004	0.0167	0.0000	53.5236	53.5236	2.6400e-003	0.0000	53.5792
<b>Total</b>	<b>0.0407</b>	<b>0.1916</b>	<b>0.5537</b>	<b>1.3000e-003</b>	<b>0.0738</b>	<b>2.9400e-003</b>	<b>0.0768</b>	<b>0.0201</b>	<b>2.7200e-003</b>	<b>0.0228</b>	<b>0.0000</b>	<b>98.1389</b>	<b>98.1389</b>	<b>2.9900e-003</b>	<b>0.0000</b>	<b>98.2017</b>

### 3.5 Building Construction - 2020

#### 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	0.2238	2.0229	1.7817	2.8400e-003		0.1180	0.1180		0.1109	0.1109	0.0000	244.4889	244.4889	0.0596	0.0000	245.7398
<b>Total</b>	<b>0.2238</b>	<b>2.0229</b>	<b>1.7817</b>	<b>2.8400e-003</b>		<b>0.1180</b>	<b>0.1180</b>		<b>0.1109</b>	<b>0.1109</b>	<b>0.0000</b>	<b>244.4889</b>	<b>244.4889</b>	<b>0.0596</b>	<b>0.0000</b>	<b>245.7398</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0459	0.3314	0.6153	1.2400e-003	0.0336	5.2600e-003	0.0388	9.6500e-003	4.8300e-003	0.0145	0.0000	105.0028	105.0028	8.1000e-004	0.0000	105.0198
Worker	0.0445	0.0668	0.6338	1.8900e-003	0.1588	1.2000e-003	0.1600	0.0422	1.1100e-003	0.0433	0.0000	123.7725	123.7725	5.9900e-003	0.0000	123.8984
<b>Total</b>	<b>0.0904</b>	<b>0.3982</b>	<b>1.2491</b>	<b>3.1300e-003</b>	<b>0.1923</b>	<b>6.4600e-003</b>	<b>0.1988</b>	<b>0.0519</b>	<b>5.9400e-003</b>	<b>0.0578</b>	<b>0.0000</b>	<b>228.7753</b>	<b>228.7753</b>	<b>6.8000e-003</b>	<b>0.0000</b>	<b>228.9181</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2238	2.0229	1.7817	2.8400e-003		0.1180	0.1180		0.1109	0.1109	0.0000	244.4886	244.4886	0.0596	0.0000	245.7395
<b>Total</b>	<b>0.2238</b>	<b>2.0229</b>	<b>1.7817</b>	<b>2.8400e-003</b>		<b>0.1180</b>	<b>0.1180</b>		<b>0.1109</b>	<b>0.1109</b>	<b>0.0000</b>	<b>244.4886</b>	<b>244.4886</b>	<b>0.0596</b>	<b>0.0000</b>	<b>245.7395</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0459	0.3314	0.6153	1.2400e-003	0.0314	5.2600e-003	0.0367	9.1200e-003	4.8300e-003	0.0140	0.0000	105.0028	105.0028	8.1000e-004	0.0000	105.0198
Worker	0.0445	0.0668	0.6338	1.8900e-003	0.1464	1.2000e-003	0.1476	0.0392	1.1100e-003	0.0403	0.0000	123.7725	123.7725	5.9900e-003	0.0000	123.8984
<b>Total</b>	<b>0.0904</b>	<b>0.3982</b>	<b>1.2491</b>	<b>3.1300e-003</b>	<b>0.1778</b>	<b>6.4600e-003</b>	<b>0.1843</b>	<b>0.0483</b>	<b>5.9400e-003</b>	<b>0.0543</b>	<b>0.0000</b>	<b>228.7753</b>	<b>228.7753</b>	<b>6.8000e-003</b>	<b>0.0000</b>	<b>228.9181</b>

### 3.6 Paving - 2020

#### 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	0.0133	0.1378	0.1435	2.2000e-004		7.3900e-003	7.3900e-003		6.8000e-003	6.8000e-003	0.0000	19.6021	19.6021	6.3400e-003	0.0000	19.7352
Paving	4.7300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0180</b>	<b>0.1378</b>	<b>0.1435</b>	<b>2.2000e-004</b>		<b>7.3900e-003</b>	<b>7.3900e-003</b>		<b>6.8000e-003</b>	<b>6.8000e-003</b>	<b>0.0000</b>	<b>19.6021</b>	<b>19.6021</b>	<b>6.3400e-003</b>	<b>0.0000</b>	<b>19.7352</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	3.8000e-004	5.7000e-004	5.4400e-003	2.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.0615	1.0615	5.0000e-005	0.0000	1.0626
<b>Total</b>	<b>3.8000e-004</b>	<b>5.7000e-004</b>	<b>5.4400e-003</b>	<b>2.0000e-005</b>	<b>1.3600e-003</b>	<b>1.0000e-005</b>	<b>1.3700e-003</b>	<b>3.6000e-004</b>	<b>1.0000e-005</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>1.0615</b>	<b>1.0615</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.0626</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0133	0.1378	0.1435	2.2000e-004		7.3900e-003	7.3900e-003		6.8000e-003	6.8000e-003	0.0000	19.6020	19.6020	6.3400e-003	0.0000	19.7352
Paving	4.7300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0180</b>	<b>0.1378</b>	<b>0.1435</b>	<b>2.2000e-004</b>		<b>7.3900e-003</b>	<b>7.3900e-003</b>		<b>6.8000e-003</b>	<b>6.8000e-003</b>	<b>0.0000</b>	<b>19.6020</b>	<b>19.6020</b>	<b>6.3400e-003</b>	<b>0.0000</b>	<b>19.7352</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	3.8000e-004	5.7000e-004	5.4400e-003	2.0000e-005	1.2600e-003	1.0000e-005	1.2700e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0615	1.0615	5.0000e-005	0.0000	1.0626
<b>Total</b>	<b>3.8000e-004</b>	<b>5.7000e-004</b>	<b>5.4400e-003</b>	<b>2.0000e-005</b>	<b>1.2600e-003</b>	<b>1.0000e-005</b>	<b>1.2700e-003</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>1.0615</b>	<b>1.0615</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.0626</b>

### 3.7 Architectural Coating - 2020

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2759					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5574
<b>Total</b>	<b>2.2783</b>	<b>0.0168</b>	<b>0.0183</b>	<b>3.0000e-005</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>2.5574</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	8.4000e-004	1.2600e-003	0.0120	4.0000e-005	3.0000e-003	2.0000e-005	3.0200e-003	8.0000e-004	2.0000e-005	8.2000e-004	0.0000	2.3353	2.3353	1.1000e-004	0.0000	2.3377
<b>Total</b>	<b>8.4000e-004</b>	<b>1.2600e-003</b>	<b>0.0120</b>	<b>4.0000e-005</b>	<b>3.0000e-003</b>	<b>2.0000e-005</b>	<b>3.0200e-003</b>	<b>8.0000e-004</b>	<b>2.0000e-005</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>2.3353</b>	<b>2.3353</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>2.3377</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2759					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5574
<b>Total</b>	<b>2.2783</b>	<b>0.0168</b>	<b>0.0183</b>	<b>3.0000e-005</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>2.5574</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	8.4000e-004	1.2600e-003	0.0120	4.0000e-005	2.7600e-003	2.0000e-005	2.7800e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.3353	2.3353	1.1000e-004	0.0000	2.3377
<b>Total</b>	<b>8.4000e-004</b>	<b>1.2600e-003</b>	<b>0.0120</b>	<b>4.0000e-005</b>	<b>2.7600e-003</b>	<b>2.0000e-005</b>	<b>2.7800e-003</b>	<b>7.4000e-004</b>	<b>2.0000e-005</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>2.3353</b>	<b>2.3353</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>2.3377</b>

**San Leandro Shoreline - Construction Phase 2**

**w/ Mitigation**

Alameda County, Annual

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	50.00	1000sqft	1.15	50,000.00	0
Parking Lot	401.00	Space	3.61	160,400.00	0
Condo/Townhouse	64.00	Dwelling Unit	4.00	129,920.00	175
Condo/Townhouse	28.00	Dwelling Unit	1.75	53,200.00	77
Single Family Housing	42.00	Dwelling Unit	4.34	98,400.00	115

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	63
<b>Climate Zone</b>	5	<b>Operational Year</b>		2020	
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	641.35	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

Land Use - Project Description and TIA (Kittelson, 2014)  
 Construction Phase -  
 Architectural Coating - Modified non-residential interior/exterior painting areas  
 Construction Off-road Equipment Mitigation - BAAQMD Best Control Measures

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	27,406.00	34,624.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	82,218.00	75,000.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	PhaseEndDate	11/19/2020	10/22/2020
tblConstructionPhase	PhaseEndDate	11/19/2020	10/22/2020
tblConstructionPhase	PhaseStartDate	10/23/2020	9/25/2020
tblConstructionPhase	PhaseStartDate	10/23/2020	9/25/2020
tblLandUse	LandUseSquareFeet	28,000.00	53,200.00
tblLandUse	LandUseSquareFeet	64,000.00	129,920.00
tblLandUse	LandUseSquareFeet	75,600.00	98,400.00
tblLandUse	LotAcreage	13.64	4.34
tblLandUse	Population	80.00	77.00
tblLandUse	Population	183.00	175.00
tblLandUse	Population	120.00	115.00
tblProjectCharacteristics	OperationalYear	2014	2020

## 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					
2019	0.2725	2.4828	2.4161	4.0600e-003	0.3068	0.1243	0.4311	0.1267	0.1157	0.2424	0.0000	341.9838	341.9838	0.0701	0.0000	343.4555
2020	2.6118	2.5776	3.2101	6.2800e-003	0.1967	0.1330	0.3296	0.0530	0.1248	0.1778	0.0000	498.8164	498.8164	0.0731	0.0000	500.3508
<b>Total</b>	<b>2.8843</b>	<b>5.0603</b>	<b>5.6262</b>	<b>0.0103</b>	<b>0.5035</b>	<b>0.2573</b>	<b>0.7607</b>	<b>0.1797</b>	<b>0.2405</b>	<b>0.4203</b>	<b>0.0000</b>	<b>840.8001</b>	<b>840.8001</b>	<b>0.1432</b>	<b>0.0000</b>	<b>843.8063</b>

#### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1211	1.5477	2.3128	4.0600e-003	0.1733	0.0177	0.1910	0.0657	0.0175	0.0831	0.0000	341.9835	341.9835	0.0701	0.0000	343.4552
2020	2.4746	2.0141	3.3712	6.2800e-003	0.1818	0.0295	0.2113	0.0494	0.0289	0.0783	0.0000	498.8160	498.8160	0.0731	0.0000	500.3505
<b>Total</b>	<b>2.5956</b>	<b>3.5618</b>	<b>5.6840</b>	<b>0.0103</b>	<b>0.3552</b>	<b>0.0471</b>	<b>0.4023</b>	<b>0.1151</b>	<b>0.0464</b>	<b>0.1615</b>	<b>0.0000</b>	<b>840.7995</b>	<b>840.7995</b>	<b>0.1432</b>	<b>0.0000</b>	<b>843.8057</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>10.01</b>	<b>29.61</b>	<b>-1.03</b>	<b>0.00</b>	<b>29.46</b>	<b>81.68</b>	<b>47.12</b>	<b>35.98</b>	<b>80.71</b>	<b>61.58</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 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	6/7/2019	7/4/2019	5	20	
2	Site Preparation	Site Preparation	7/5/2019	7/18/2019	5	10	
3	Grading	Grading	7/19/2019	8/29/2019	5	30	
4	Building Construction	Building Construction	8/30/2019	10/22/2020	5	300	
5	Paving	Paving	9/25/2020	10/22/2020	5	20	
6	Architectural Coating	Architectural Coating	9/25/2020	10/22/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 570,078; Residential Outdoor: 190,026; Non-Residential Indoor: 75,000; Non-Residential Outdoor: 34,624

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	14.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	165.00	49.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	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**

- Use Cleaner Engines for Construction Equipment
- Use DPF for Construction Equipment
- Replace Ground Cover
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads



### 3.2 Demolition - 2019

#### 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					1.5000e-003	0.0000	1.5000e-003	2.3000e-004	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.3394	0.3081	4.0000e-004		0.0165	0.0165		0.0153	0.0153	0.0000	35.6454	35.6454	9.9600e-003	0.0000	35.8545
<b>Total</b>	<b>0.0332</b>	<b>0.3394</b>	<b>0.3081</b>	<b>4.0000e-004</b>	<b>1.5000e-003</b>	<b>0.0165</b>	<b>0.0180</b>	<b>2.3000e-004</b>	<b>0.0153</b>	<b>0.0156</b>	<b>0.0000</b>	<b>35.6454</b>	<b>35.6454</b>	<b>9.9600e-003</b>	<b>0.0000</b>	<b>35.8545</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	1.5700e-003	1.5500e-003	1.0000e-005	1.2000e-004	2.0000e-005	1.4000e-004	3.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.4585	0.4585	0.0000	0.0000	0.4586
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	4.1000e-004	6.2000e-004	5.8900e-003	2.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1059	1.1059	5.0000e-005	0.0000	1.1070
<b>Total</b>	<b>5.5000e-004</b>	<b>2.1900e-003</b>	<b>7.4400e-003</b>	<b>3.0000e-005</b>	<b>1.4800e-003</b>	<b>3.0000e-005</b>	<b>1.5100e-003</b>	<b>3.9000e-004</b>	<b>3.0000e-005</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>1.5643</b>	<b>1.5643</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.5656</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.4000e-004	0.0000	6.4000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4800e-003	0.1876	0.2527	4.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	35.6454	35.6454	9.9600e-003	0.0000	35.8544
<b>Total</b>	<b>9.4800e-003</b>	<b>0.1876</b>	<b>0.2527</b>	<b>4.0000e-004</b>	<b>6.4000e-004</b>	<b>1.3200e-003</b>	<b>1.9600e-003</b>	<b>1.0000e-004</b>	<b>1.3200e-003</b>	<b>1.4200e-003</b>	<b>0.0000</b>	<b>35.6454</b>	<b>35.6454</b>	<b>9.9600e-003</b>	<b>0.0000</b>	<b>35.8544</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	1.5700e-003	1.5500e-003	1.0000e-005	1.1000e-004	2.0000e-005	1.3000e-004	3.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.4585	0.4585	0.0000	0.0000	0.4586
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	4.1000e-004	6.2000e-004	5.8900e-003	2.0000e-005	1.2600e-003	1.0000e-005	1.2700e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.1059	1.1059	5.0000e-005	0.0000	1.1070
<b>Total</b>	<b>5.5000e-004</b>	<b>2.1900e-003</b>	<b>7.4400e-003</b>	<b>3.0000e-005</b>	<b>1.3700e-003</b>	<b>3.0000e-005</b>	<b>1.4000e-003</b>	<b>3.7000e-004</b>	<b>3.0000e-005</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>1.5643</b>	<b>1.5643</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.5656</b>

### 3.3 Site Preparation - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0201	0.2125	0.1740	2.0000e-004		0.0108	0.0108		9.8900e-003	9.8900e-003	0.0000	17.5845	17.5845	5.5600e-003	0.0000	17.7014
<b>Total</b>	<b>0.0201</b>	<b>0.2125</b>	<b>0.1740</b>	<b>2.0000e-004</b>	<b>0.0903</b>	<b>0.0108</b>	<b>0.1011</b>	<b>0.0497</b>	<b>9.8900e-003</b>	<b>0.0595</b>	<b>0.0000</b>	<b>17.5845</b>	<b>17.5845</b>	<b>5.5600e-003</b>	<b>0.0000</b>	<b>17.7014</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.5000e-004	3.7000e-004	3.5400e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.2000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.6635	0.6635	3.0000e-005	0.0000	0.6642
<b>Total</b>	<b>2.5000e-004</b>	<b>3.7000e-004</b>	<b>3.5400e-003</b>	<b>1.0000e-005</b>	<b>8.2000e-004</b>	<b>1.0000e-005</b>	<b>8.2000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.6635</b>	<b>0.6635</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.6642</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0386	0.0000	0.0386	0.0212	0.0000	0.0212	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7600e-003	0.0973	0.1170	2.0000e-004		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004	0.0000	17.5845	17.5845	5.5600e-003	0.0000	17.7013
<b>Total</b>	<b>4.7600e-003</b>	<b>0.0973</b>	<b>0.1170</b>	<b>2.0000e-004</b>	<b>0.0386</b>	<b>7.2000e-004</b>	<b>0.0393</b>	<b>0.0212</b>	<b>7.2000e-004</b>	<b>0.0220</b>	<b>0.0000</b>	<b>17.5845</b>	<b>17.5845</b>	<b>5.5600e-003</b>	<b>0.0000</b>	<b>17.7013</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.5000e-004	3.7000e-004	3.5400e-003	1.0000e-005	7.5000e-004	1.0000e-005	7.6000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6635	0.6635	3.0000e-005	0.0000	0.6642
<b>Total</b>	<b>2.5000e-004</b>	<b>3.7000e-004</b>	<b>3.5400e-003</b>	<b>1.0000e-005</b>	<b>7.5000e-004</b>	<b>1.0000e-005</b>	<b>7.6000e-004</b>	<b>2.0000e-004</b>	<b>1.0000e-005</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>0.6635</b>	<b>0.6635</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.6642</b>

### 3.4 Grading - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0734	0.8130	0.6043	9.3000e-004		0.0376	0.0376		0.0346	0.0346	0.0000	83.1613	83.1613	0.0263	0.0000	83.7139
<b>Total</b>	<b>0.0734</b>	<b>0.8130</b>	<b>0.6043</b>	<b>9.3000e-004</b>	<b>0.1301</b>	<b>0.0376</b>	<b>0.1677</b>	<b>0.0540</b>	<b>0.0346</b>	<b>0.0885</b>	<b>0.0000</b>	<b>83.1613</b>	<b>83.1613</b>	<b>0.0263</b>	<b>0.0000</b>	<b>83.7139</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	8.2000e-004	1.2400e-003	0.0118	3.0000e-005	2.7200e-003	2.0000e-005	2.7400e-003	7.2000e-004	2.0000e-005	7.4000e-004	0.0000	2.2117	2.2117	1.1000e-004	0.0000	2.2140
<b>Total</b>	<b>8.2000e-004</b>	<b>1.2400e-003</b>	<b>0.0118</b>	<b>3.0000e-005</b>	<b>2.7200e-003</b>	<b>2.0000e-005</b>	<b>2.7400e-003</b>	<b>7.2000e-004</b>	<b>2.0000e-005</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>2.2117</b>	<b>2.2117</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>2.2140</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0556	0.0000	0.0556	0.0231	0.0000	0.0231	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0227	0.4467	0.5692	9.3000e-004		2.9800e-003	2.9800e-003		2.9800e-003	2.9800e-003	0.0000	83.1612	83.1612	0.0263	0.0000	83.7138
<b>Total</b>	<b>0.0227</b>	<b>0.4467</b>	<b>0.5692</b>	<b>9.3000e-004</b>	<b>0.0556</b>	<b>2.9800e-003</b>	<b>0.0586</b>	<b>0.0231</b>	<b>2.9800e-003</b>	<b>0.0260</b>	<b>0.0000</b>	<b>83.1612</b>	<b>83.1612</b>	<b>0.0263</b>	<b>0.0000</b>	<b>83.7138</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	8.2000e-004	1.2400e-003	0.0118	3.0000e-005	2.5100e-003	2.0000e-005	2.5300e-003	6.7000e-004	2.0000e-005	6.9000e-004	0.0000	2.2117	2.2117	1.1000e-004	0.0000	2.2140
<b>Total</b>	<b>8.2000e-004</b>	<b>1.2400e-003</b>	<b>0.0118</b>	<b>3.0000e-005</b>	<b>2.5100e-003</b>	<b>2.0000e-005</b>	<b>2.5300e-003</b>	<b>6.7000e-004</b>	<b>2.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>2.2117</b>	<b>2.2117</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>2.2140</b>

### 3.5 Building Construction - 2019

#### 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	0.1035	0.9225	0.7533	1.1800e-003		0.0565	0.0565		0.0532	0.0532	0.0000	103.0140	103.0140	0.0251	0.0000	103.5404
<b>Total</b>	<b>0.1035</b>	<b>0.9225</b>	<b>0.7533</b>	<b>1.1800e-003</b>		<b>0.0565</b>	<b>0.0565</b>		<b>0.0532</b>	<b>0.0532</b>	<b>0.0000</b>	<b>103.0140</b>	<b>103.0140</b>	<b>0.0251</b>	<b>0.0000</b>	<b>103.5404</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0209	0.1615	0.2684	5.1000e-004	0.0139	2.4400e-003	0.0164	4.0000e-003	2.2500e-003	6.2500e-003	0.0000	44.6153	44.6153	3.5000e-004	0.0000	44.6225
Worker	0.0198	0.0301	0.2853	7.9000e-004	0.0659	5.0000e-004	0.0664	0.0175	4.7000e-004	0.0180	0.0000	53.5236	53.5236	2.6400e-003	0.0000	53.5792
<b>Total</b>	<b>0.0407</b>	<b>0.1916</b>	<b>0.5537</b>	<b>1.3000e-003</b>	<b>0.0798</b>	<b>2.9400e-003</b>	<b>0.0828</b>	<b>0.0215</b>	<b>2.7200e-003</b>	<b>0.0243</b>	<b>0.0000</b>	<b>98.1389</b>	<b>98.1389</b>	<b>2.9900e-003</b>	<b>0.0000</b>	<b>98.2017</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0418	0.6208	0.7975	1.1800e-003		9.6600e-003	9.6600e-003		9.6600e-003	9.6600e-003	0.0000	103.0139	103.0139	0.0251	0.0000	103.5402
<b>Total</b>	<b>0.0418</b>	<b>0.6208</b>	<b>0.7975</b>	<b>1.1800e-003</b>		<b>9.6600e-003</b>	<b>9.6600e-003</b>		<b>9.6600e-003</b>	<b>9.6600e-003</b>	<b>0.0000</b>	<b>103.0139</b>	<b>103.0139</b>	<b>0.0251</b>	<b>0.0000</b>	<b>103.5402</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0209	0.1615	0.2684	5.1000e-004	0.0130	2.4400e-003	0.0155	3.7800e-003	2.2500e-003	6.0300e-003	0.0000	44.6153	44.6153	3.5000e-004	0.0000	44.6225
Worker	0.0198	0.0301	0.2853	7.9000e-004	0.0608	5.0000e-004	0.0613	0.0163	4.7000e-004	0.0167	0.0000	53.5236	53.5236	2.6400e-003	0.0000	53.5792
<b>Total</b>	<b>0.0407</b>	<b>0.1916</b>	<b>0.5537</b>	<b>1.3000e-003</b>	<b>0.0738</b>	<b>2.9400e-003</b>	<b>0.0768</b>	<b>0.0201</b>	<b>2.7200e-003</b>	<b>0.0228</b>	<b>0.0000</b>	<b>98.1389</b>	<b>98.1389</b>	<b>2.9900e-003</b>	<b>0.0000</b>	<b>98.2017</b>

### 3.5 Building Construction - 2020

#### 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	0.2238	2.0229	1.7817	2.8400e-003		0.1180	0.1180		0.1109	0.1109	0.0000	244.4889	244.4889	0.0596	0.0000	245.7398
<b>Total</b>	<b>0.2238</b>	<b>2.0229</b>	<b>1.7817</b>	<b>2.8400e-003</b>		<b>0.1180</b>	<b>0.1180</b>		<b>0.1109</b>	<b>0.1109</b>	<b>0.0000</b>	<b>244.4889</b>	<b>244.4889</b>	<b>0.0596</b>	<b>0.0000</b>	<b>245.7398</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0459	0.3314	0.6153	1.2400e-003	0.0336	5.2600e-003	0.0388	9.6500e-003	4.8300e-003	0.0145	0.0000	105.0028	105.0028	8.1000e-004	0.0000	105.0198
Worker	0.0445	0.0668	0.6338	1.8900e-003	0.1588	1.2000e-003	0.1600	0.0422	1.1100e-003	0.0433	0.0000	123.7725	123.7725	5.9900e-003	0.0000	123.8984
<b>Total</b>	<b>0.0904</b>	<b>0.3982</b>	<b>1.2491</b>	<b>3.1300e-003</b>	<b>0.1923</b>	<b>6.4600e-003</b>	<b>0.1988</b>	<b>0.0519</b>	<b>5.9400e-003</b>	<b>0.0578</b>	<b>0.0000</b>	<b>228.7753</b>	<b>228.7753</b>	<b>6.8000e-003</b>	<b>0.0000</b>	<b>228.9181</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0962	1.4898	1.9171	2.8400e-003		0.0219	0.0219		0.0219	0.0219	0.0000	244.4886	244.4886	0.0596	0.0000	245.7395
<b>Total</b>	<b>0.0962</b>	<b>1.4898</b>	<b>1.9171</b>	<b>2.8400e-003</b>		<b>0.0219</b>	<b>0.0219</b>		<b>0.0219</b>	<b>0.0219</b>	<b>0.0000</b>	<b>244.4886</b>	<b>244.4886</b>	<b>0.0596</b>	<b>0.0000</b>	<b>245.7395</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0459	0.3314	0.6153	1.2400e-003	0.0314	5.2600e-003	0.0367	9.1200e-003	4.8300e-003	0.0140	0.0000	105.0028	105.0028	8.1000e-004	0.0000	105.0198
Worker	0.0445	0.0668	0.6338	1.8900e-003	0.1464	1.2000e-003	0.1476	0.0392	1.1100e-003	0.0403	0.0000	123.7725	123.7725	5.9900e-003	0.0000	123.8984
<b>Total</b>	<b>0.0904</b>	<b>0.3982</b>	<b>1.2491</b>	<b>3.1300e-003</b>	<b>0.1778</b>	<b>6.4600e-003</b>	<b>0.1843</b>	<b>0.0483</b>	<b>5.9400e-003</b>	<b>0.0543</b>	<b>0.0000</b>	<b>228.7753</b>	<b>228.7753</b>	<b>6.8000e-003</b>	<b>0.0000</b>	<b>228.9181</b>

### 3.6 Paving - 2020

#### 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	0.0133	0.1378	0.1435	2.2000e-004		7.3900e-003	7.3900e-003		6.8000e-003	6.8000e-003	0.0000	19.6021	19.6021	6.3400e-003	0.0000	19.7352
Paving	4.7300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0180</b>	<b>0.1378</b>	<b>0.1435</b>	<b>2.2000e-004</b>		<b>7.3900e-003</b>	<b>7.3900e-003</b>		<b>6.8000e-003</b>	<b>6.8000e-003</b>	<b>0.0000</b>	<b>19.6021</b>	<b>19.6021</b>	<b>6.3400e-003</b>	<b>0.0000</b>	<b>19.7352</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	3.8000e-004	5.7000e-004	5.4400e-003	2.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.0615	1.0615	5.0000e-005	0.0000	1.0626
<b>Total</b>	<b>3.8000e-004</b>	<b>5.7000e-004</b>	<b>5.4400e-003</b>	<b>2.0000e-005</b>	<b>1.3600e-003</b>	<b>1.0000e-005</b>	<b>1.3700e-003</b>	<b>3.6000e-004</b>	<b>1.0000e-005</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>1.0615</b>	<b>1.0615</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.0626</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.4900e-003	0.1106	0.1693	2.2000e-004		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	19.6020	19.6020	6.3400e-003	0.0000	19.7352
Paving	4.7300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0102</b>	<b>0.1106</b>	<b>0.1693</b>	<b>2.2000e-004</b>		<b>9.0000e-004</b>	<b>9.0000e-004</b>		<b>9.0000e-004</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>19.6020</b>	<b>19.6020</b>	<b>6.3400e-003</b>	<b>0.0000</b>	<b>19.7352</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	3.8000e-004	5.7000e-004	5.4400e-003	2.0000e-005	1.2600e-003	1.0000e-005	1.2700e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0615	1.0615	5.0000e-005	0.0000	1.0626
<b>Total</b>	<b>3.8000e-004</b>	<b>5.7000e-004</b>	<b>5.4400e-003</b>	<b>2.0000e-005</b>	<b>1.2600e-003</b>	<b>1.0000e-005</b>	<b>1.2700e-003</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>1.0615</b>	<b>1.0615</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.0626</b>

### 3.7 Architectural Coating - 2020

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2759					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5574
<b>Total</b>	<b>2.2783</b>	<b>0.0168</b>	<b>0.0183</b>	<b>3.0000e-005</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>2.5574</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	8.4000e-004	1.2600e-003	0.0120	4.0000e-005	3.0000e-003	2.0000e-005	3.0200e-003	8.0000e-004	2.0000e-005	8.2000e-004	0.0000	2.3353	2.3353	1.1000e-004	0.0000	2.3377
<b>Total</b>	<b>8.4000e-004</b>	<b>1.2600e-003</b>	<b>0.0120</b>	<b>4.0000e-005</b>	<b>3.0000e-003</b>	<b>2.0000e-005</b>	<b>3.0200e-003</b>	<b>8.0000e-004</b>	<b>2.0000e-005</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>2.3353</b>	<b>2.3353</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>2.3377</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2759					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	0.0136	0.0183	3.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5574
<b>Total</b>	<b>2.2765</b>	<b>0.0136</b>	<b>0.0183</b>	<b>3.0000e-005</b>		<b>1.4000e-004</b>	<b>1.4000e-004</b>		<b>1.4000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>2.5574</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	8.4000e-004	1.2600e-003	0.0120	4.0000e-005	2.7600e-003	2.0000e-005	2.7800e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.3353	2.3353	1.1000e-004	0.0000	2.3377
<b>Total</b>	<b>8.4000e-004</b>	<b>1.2600e-003</b>	<b>0.0120</b>	<b>4.0000e-005</b>	<b>2.7600e-003</b>	<b>2.0000e-005</b>	<b>2.7800e-003</b>	<b>7.4000e-004</b>	<b>2.0000e-005</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>2.3353</b>	<b>2.3353</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>2.3377</b>

A P P E N D I X  
A I R Q U A L I T Y A N D G R E E N H O U S E G A S  
B A C K G R O U N D A N D M O D E L I N G D A T A

4 C A L E E M O D O U T P U T -  
E X I S T I N G O P E R A T I O N  
2 0 1 4 A N D 2 0 2 0

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## San Leandro Shoreline - Existing Operation

### Alameda County, Annual

### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4.15	1000sqft	0.10	4,150.00	0
Library	2.00	1000sqft	0.05	2,000.00	0
Parking Lot	19.45	Acre	19.45	846,868.00	0
City Park	3.25	Acre	3.25	141,570.00	0
Health Club	1.60	1000sqft	0.04	1,600.00	0
High Turnover (Sit Down Restaurant)	22.52	1000sqft	0.52	22,520.00	0

#### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	63
<b>Climate Zone</b>	5			<b>Operational Year</b>	2014
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	641.35	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

- Project Characteristics -
- Land Use - Project Description, WSA (EBMUD, 2014), and TIA (Kittelson, 2014)
- Construction Phase - Modeling Operational Emissions Only
- Off-road Equipment - Modeling operational emissions only
- Trips and VMT - Modeling operational emissions only
- Demolition -
- Grading - Site balanced
- Architectural Coating - Modeling operational emissions only
- Vehicle Trips - Kittelson, 2014
- Area Coating - Non-residential coatings methodology
- Energy Use - 2005 Building and Energy Efficiency Standards
- Water And Wastewater - Water Supply Assessment, 2014; 100% aerobic
- Construction Off-road Equipment Mitigation - Operational emissions only
- Woodstoves -
- Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	98623	65947
tblAreaCoating	Area_Nonresidential_Interior	295869	45405
tblLandUse	LandUseSquareFeet	847,242.00	846,868.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	85.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	44.00	0.00

tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	52.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	44.00	100.00
tblVehicleTrips	ST_TR	1.59	269.23
tblVehicleTrips	ST_TR	2.37	9.59
tblVehicleTrips	ST_TR	20.87	99.50
tblVehicleTrips	ST_TR	158.37	93.93
tblVehicleTrips	ST_TR	46.55	46.29
tblVehicleTrips	SU_TR	1.59	269.23
tblVehicleTrips	SU_TR	0.98	9.59
tblVehicleTrips	SU_TR	26.73	99.50
tblVehicleTrips	SU_TR	131.84	93.93
tblVehicleTrips	SU_TR	25.49	46.29
tblVehicleTrips	WD_TR	1.59	204.93
tblVehicleTrips	WD_TR	11.01	27.82
tblVehicleTrips	WD_TR	32.93	98.70
tblVehicleTrips	WD_TR	127.15	88.77
tblVehicleTrips	WD_TR	56.24	124.32
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	0.00	109,500.00
tblWater	IndoorWaterUseRate	737,595.05	84,636.00
tblWater	IndoorWaterUseRate	94,629.03	76,037.00
tblWater	IndoorWaterUseRate	6,835,579.20	4,612,636.00
tblWater	IndoorWaterUseRate	62,577.82	15,801.00
tblWater	OutdoorWaterUseRate	3,872,314.39	0.00
tblWater	OutdoorWaterUseRate	452,074.39	51,874.00
tblWater	OutdoorWaterUseRate	57,998.44	46,603.00
tblWater	OutdoorWaterUseRate	436,313.57	294,424.00
tblWater	OutdoorWaterUseRate	97,878.12	24,714.00
tblWater	SepticTankPercent	10.33	0.00

## 2.0 Emissions Summary

### 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	4.0121	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0100e-003
Energy	0.0218	0.1982	0.1665	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	661.2510	661.2510	0.0243	8.1200e-003	664.2791
Mobile	2.8960	9.5131	32.3505	0.0507	3.3643	0.1477	3.5120	0.9040	0.1356	1.0396	0.0000	4,293.6432	4,293.6432	0.2009	0.0000	4,297.8616
Waste						0.0000	0.0000		0.0000	0.0000	57.4647	0.0000	57.4647	3.3961	0.0000	128.7821
Water						0.0000	0.0000		0.0000	0.0000	1.7331	8.1362	9.8694	6.3300e-003	3.8500e-003	11.1943
<b>Total</b>	<b>6.9299</b>	<b>9.7113</b>	<b>32.5175</b>	<b>0.0519</b>	<b>3.3643</b>	<b>0.1627</b>	<b>3.5270</b>	<b>0.9040</b>	<b>0.1506</b>	<b>1.0546</b>	<b>59.1979</b>	<b>4,963.0314</b>	<b>5,022.2292</b>	<b>3.6276</b>	<b>0.0120</b>	<b>5,102.1181</b>

#### Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.0121	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0100e-003
Energy	0.0218	0.1982	0.1665	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	661.2510	661.2510	0.0243	8.1200e-003	664.2791
Mobile	2.8960	9.5131	32.3505	0.0507	3.3643	0.1477	3.5120	0.9040	0.1356	1.0396	0.0000	4,293.6432	4,293.6432	0.2009	0.0000	4,297.8616
Waste						0.0000	0.0000		0.0000	0.0000	57.4647	0.0000	57.4647	3.3961	0.0000	128.7821
Water						0.0000	0.0000		0.0000	0.0000	1.7331	8.1362	9.8694	6.3000e-003	3.8400e-003	11.1916
<b>Total</b>	<b>6.9299</b>	<b>9.7113</b>	<b>32.5175</b>	<b>0.0519</b>	<b>3.3643</b>	<b>0.1627</b>	<b>3.5270</b>	<b>0.9040</b>	<b>0.1506</b>	<b>1.0546</b>	<b>59.1979</b>	<b>4,963.0314</b>	<b>5,022.2292</b>	<b>3.6275</b>	<b>0.0120</b>	<b>5,102.1154</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.08</b>	<b>0.00</b>

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.8960	9.5131	32.3505	0.0507	3.3643	0.1477	3.5120	0.9040	0.1356	1.0396	0.0000	4,293.6432	4,293.6432	0.2009	0.0000	4,297.8616
Unmitigated	2.8960	9.5131	32.3505	0.0507	3.3643	0.1477	3.5120	0.9040	0.1356	1.0396	0.0000	4,293.6432	4,293.6432	0.2009	0.0000	4,297.8616

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	666.02	875.00	875.00	2,120,193	2,120,193
General Office Building	115.45	39.80	39.80	274,143	274,143
Health Club	157.92	159.20	159.20	442,018	442,018
High Turnover (Sit Down Restaurant)	1,999.10	2,115.30	2,115.30	5,538,566	5,538,566
Library	248.64	92.58	92.58	627,176	627,176
Parking Lot	0.00	0.00	0.00		
Total	3,187.14	3,281.88	3,281.88	9,002,096	9,002,096

### 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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Health Club	9.50	7.30	7.30	16.90	64.10	19.00	100	0	0
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	100	0	0
Library	9.50	7.30	7.30	52.00	43.00	5.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.542757	0.062006	0.168650	0.114572	0.031552	0.004717	0.018583	0.044562	0.001747	0.003723	0.005493	0.000211	0.001428

## 5.0 Energy Detail

### 4.4 Fleet Mix

Historical Energy Use: Y

### 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	445.4799	445.4799	0.0201	4.1700e-003	447.1949
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	445.4799	445.4799	0.0201	4.1700e-003	447.1949
NaturalGas Mitigated	0.0218	0.1982	0.1665	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	215.7711	215.7711	4.1400e-003	3.9600e-003	217.0842
NaturalGas Unmitigated	0.0218	0.1982	0.1665	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	215.7711	215.7711	4.1400e-003	3.9600e-003	217.0842

## 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					
General Office Building	97898.5	5.3000e-004	4.8000e-003	4.0300e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.2242	5.2242	1.0000e-004	1.0000e-004	5.2560
Health Club	43136	2.3000e-004	2.1100e-003	1.7800e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3019	2.3019	4.0000e-005	4.0000e-005	2.3159
High Turnover (Sit Down Restaurant)	3.84844e+006	0.0208	0.1887	0.1585	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	205.3676	205.3676	3.9400e-003	3.7700e-003	206.6174
Library	53920	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8774	2.8774	6.0000e-005	5.0000e-005	2.8949
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
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0218</b>	<b>0.1982</b>	<b>0.1665</b>	<b>1.1900e-003</b>		<b>0.0151</b>	<b>0.0151</b>		<b>0.0151</b>	<b>0.0151</b>	<b>0.0000</b>	<b>215.7711</b>	<b>215.7711</b>	<b>4.1400e-003</b>	<b>3.9600e-003</b>	<b>217.0842</b>

### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	97898.5	5.3000e-004	4.8000e-003	4.0300e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.2242	5.2242	1.0000e-004	1.0000e-004	5.2560
Health Club	43136	2.3000e-004	2.1100e-003	1.7800e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3019	2.3019	4.0000e-005	4.0000e-005	2.3159
High Turnover (Sit Down Restaurant)	3.84844e+006	0.0208	0.1887	0.1585	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	205.3676	205.3676	3.9400e-003	3.7700e-003	206.6174
Library	53920	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8774	2.8774	6.0000e-005	5.0000e-005	2.8949
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
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0218</b>	<b>0.1982</b>	<b>0.1665</b>	<b>1.1900e-003</b>		<b>0.0151</b>	<b>0.0151</b>		<b>0.0151</b>	<b>0.0151</b>	<b>0.0000</b>	<b>215.7711</b>	<b>215.7711</b>	<b>4.1400e-003</b>	<b>3.9600e-003</b>	<b>217.0842</b>

## 5.3 Energy by Land Use - Electricity

### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	60424	17.5780	7.9000e-004	1.6000e-004	17.6457
Health Club	13840	4.0262	1.8000e-004	4.0000e-005	4.0417
High Turnover (Sit Down Restaurant)	694517	202.0429	9.1400e-003	1.8900e-003	202.8207
Library	17300	5.0328	2.3000e-004	5.0000e-005	5.0521
Parking Lot	745244	216.8000	9.8000e-003	2.0300e-003	217.6346
<b>Total</b>		<b>445.4799</b>	<b>0.0201</b>	<b>4.1700e-003</b>	<b>447.1948</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	60424	17.5780	7.9000e-004	1.6000e-004	17.6457
Health Club	13840	4.0262	1.8000e-004	4.0000e-005	4.0417
High Turnover (Sit Down Restaurant)	694517	202.0429	9.1400e-003	1.8900e-003	202.8207
Library	17300	5.0328	2.3000e-004	5.0000e-005	5.0521
Parking Lot	745244	216.8000	9.8000e-003	2.0300e-003	217.6346
<b>Total</b>		<b>445.4799</b>	<b>0.0201</b>	<b>4.1700e-003</b>	<b>447.1948</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.0121	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0100e-003
Unmitigated	4.0121	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0100e-003

**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	0.0335					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9786					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0100e-003
<b>Total</b>	<b>4.0121</b>	<b>0.0000</b>	<b>5.1000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>9.5000e-004</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0100e-003</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0335					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9786					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0100e-003
<b>Total</b>	<b>4.0121</b>	<b>0.0000</b>	<b>5.1000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>9.5000e-004</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0100e-003</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.8694	6.3000e-003	3.8400e-003	11.1916
Unmitigated	9.8694	6.3300e-003	3.8500e-003	11.1943

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0.1095 / 0	0.2111	1.4000e-004	9.0000e-005	0.2407
General Office Building	0.084636 / 0.051874	0.2160	1.1000e-004	7.0000e-005	0.2391
Health Club	0.076037 / 0.046603	0.1940	1.0000e-004	6.0000e-005	0.2148
High Turnover (Sit Down Restaurant)	4.61264 / 0.294424	9.1926	5.9600e-003	3.6200e-003	10.4398
Library	0.015801 / 0.024714	0.0556	2.0000e-005	1.0000e-005	0.0600
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>9.8694</b>	<b>6.3300e-003</b>	<b>3.8500e-003</b>	<b>11.1943</b>

#### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0.1095 / 0	0.2111	1.4000e-004	9.0000e-005	0.2406
General Office Building	0.084636 / 0.051874	0.2160	1.1000e-004	7.0000e-005	0.2390
Health Club	0.076037 / 0.046603	0.1940	1.0000e-004	6.0000e-005	0.2147
High Turnover (Sit Down Restaurant)	4.61264 / 0.294424	9.1926	5.9300e-003	3.6100e-003	10.4372
Library	0.015801 / 0.024714	0.0556	2.0000e-005	1.0000e-005	0.0600
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>9.8694</b>	<b>6.3000e-003</b>	<b>3.8400e-003</b>	<b>11.1916</b>

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	57.4647	3.3961	0.0000	128.7821
Mitigated	57.4647	3.3961	0.0000	128.7821

### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.28	0.0568	3.3600e-003	0.0000	0.1274
General Office Building	3.86	0.7836	0.0463	0.0000	1.7560
Health Club	9.12	1.8513	0.1094	0.0000	4.1488
High Turnover (Sit Down Restaurant)	267.99	54.3996	3.2149	0.0000	121.9129
Library	1.84	0.3735	0.0221	0.0000	0.8371
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>57.4647</b>	<b>3.3961</b>	<b>0.0000</b>	<b>128.7821</b>

#### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.28	0.0568	3.3600e-003	0.0000	0.1274
General Office Building	3.86	0.7836	0.0463	0.0000	1.7560
Health Club	9.12	1.8513	0.1094	0.0000	4.1488
High Turnover (Sit Down Restaurant)	267.99	54.3996	3.2149	0.0000	121.9129
Library	1.84	0.3735	0.0221	0.0000	0.8371
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>57.4647</b>	<b>3.3961</b>	<b>0.0000</b>	<b>128.7821</b>

## 9.0 Operational Offroad

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



**San Leandro Shoreline - Existing Operation 2020**  
Alameda County, Annual

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4.15	1000sqft	0.10	4,150.00	0
Library	2.00	1000sqft	0.05	2,000.00	0
Parking Lot	19.45	Acre	19.45	846,868.00	0
City Park	3.25	Acre	3.25	141,570.00	0
Health Club	1.60	1000sqft	0.04	1,600.00	0
High Turnover (Sit Down Restaurant)	22.52	1000sqft	0.52	22,520.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	63
<b>Climate Zone</b>	5			<b>Operational Year</b>	2020
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	641.35	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

- Project Characteristics -
- Land Use - Project Description, WSA (EBMUD, 2014), and TIA (Kittelson, 2014)
- Construction Phase - Modeling Operational Emissions Only
- Off-road Equipment - Modeling operational emissions only
- Trips and VMT - Modeling operational emissions only
- Demolition -
- Grading - Site balanced
- Architectural Coating - Modeling operational emissions only
- Vehicle Trips - Kittelson, 2014
- Woodstoves -
- Area Coating - Non-residential coatings methodology
- Energy Use - 2005 Building and Energy Efficiency Standards
- Water And Wastewater - Water Supply Assessment, 2014; 100% aerobic
- Construction Off-road Equipment Mitigation - Operational emissions only

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	98623	65947
tblAreaCoating	Area_Nonresidential_Interior	295869	45405
tblLandUse	LandUseSquareFeet	847,242.00	846,868.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	WorkerTripNumber	85.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	44.00	0.00

tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	52.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	44.00	100.00
tblVehicleTrips	ST_TR	1.59	269.23
tblVehicleTrips	ST_TR	2.37	9.59
tblVehicleTrips	ST_TR	20.87	99.50
tblVehicleTrips	ST_TR	158.37	93.93
tblVehicleTrips	ST_TR	46.55	46.29
tblVehicleTrips	SU_TR	1.59	269.23
tblVehicleTrips	SU_TR	0.98	9.59
tblVehicleTrips	SU_TR	26.73	99.50
tblVehicleTrips	SU_TR	131.84	93.93
tblVehicleTrips	SU_TR	25.49	46.29
tblVehicleTrips	WD_TR	1.59	204.93
tblVehicleTrips	WD_TR	11.01	27.82
tblVehicleTrips	WD_TR	32.93	98.70
tblVehicleTrips	WD_TR	127.15	88.77
tblVehicleTrips	WD_TR	56.24	124.32
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	0.00	109,500.00
tblWater	IndoorWaterUseRate	737,595.05	84,636.00
tblWater	IndoorWaterUseRate	94,629.03	76,037.00
tblWater	IndoorWaterUseRate	6,835,579.20	4,612,636.00
tblWater	IndoorWaterUseRate	62,577.82	15,801.00
tblWater	OutdoorWaterUseRate	3,872,314.39	0.00
tblWater	OutdoorWaterUseRate	452,074.39	51,874.00
tblWater	OutdoorWaterUseRate	57,998.44	46,603.00
tblWater	OutdoorWaterUseRate	436,313.57	294,424.00
tblWater	OutdoorWaterUseRate	97,878.12	24,714.00
tblWater	SepticTankPercent	10.33	0.00

## 2.0 Emissions Summary

**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	4.0121	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0000e-003
Energy	0.0218	0.1982	0.1665	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	661.2510	661.2510	0.0243	8.1200e-003	664.2791
Mobile	1.7981	5.4469	20.2972	0.0512	3.3672	0.0836	3.4508	0.9049	0.0770	0.9820	0.0000	3,651.9876	3,651.9876	0.1245	0.0000	3,654.6024
Waste						0.0000	0.0000		0.0000	0.0000	57.4647	0.0000	57.4647	3.3961	0.0000	128.7821
Water						0.0000	0.0000		0.0000	0.0000	1.7331	8.1362	9.8694	6.3300e-003	3.8500e-003	11.1943
<b>Total</b>	<b>5.8320</b>	<b>5.6451</b>	<b>20.4642</b>	<b>0.0524</b>	<b>3.3672</b>	<b>0.0986</b>	<b>3.4659</b>	<b>0.9049</b>	<b>0.0921</b>	<b>0.9970</b>	<b>59.1979</b>	<b>4,321.3758</b>	<b>4,380.5736</b>	<b>3.5512</b>	<b>0.0120</b>	<b>4,458.8590</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.0121	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0000e-003
Energy	0.0218	0.1982	0.1665	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	661.2510	661.2510	0.0243	8.1200e-003	664.2791
Mobile	1.7981	5.4469	20.2972	0.0512	3.3672	0.0836	3.4508	0.9049	0.0770	0.9820	0.0000	3,651.9876	3,651.9876	0.1245	0.0000	3,654.6024
Waste						0.0000	0.0000		0.0000	0.0000	57.4647	0.0000	57.4647	3.3961	0.0000	128.7821
Water						0.0000	0.0000		0.0000	0.0000	1.7331	8.1362	9.8694	6.3000e-003	3.8400e-003	11.1916
<b>Total</b>	<b>5.8320</b>	<b>5.6451</b>	<b>20.4642</b>	<b>0.0524</b>	<b>3.3672</b>	<b>0.0986</b>	<b>3.4659</b>	<b>0.9049</b>	<b>0.0921</b>	<b>0.9970</b>	<b>59.1979</b>	<b>4,321.3758</b>	<b>4,380.5736</b>	<b>3.5512</b>	<b>0.0120</b>	<b>4,458.8562</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.08</b>	<b>0.00</b>

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.7981	5.4469	20.2972	0.0512	3.3672	0.0836	3.4508	0.9049	0.0770	0.9820	0.0000	3,651.9876	3,651.9876	0.1245	0.0000	3,654.6024
Unmitigated	1.7981	5.4469	20.2972	0.0512	3.3672	0.0836	3.4508	0.9049	0.0770	0.9820	0.0000	3,651.9876	3,651.9876	0.1245	0.0000	3,654.6024

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	666.02	875.00	875.00	2,120,193	2,120,193
General Office Building	115.45	39.80	39.80	274,143	274,143
Health Club	157.92	159.20	159.20	442,018	442,018
High Turnover (Sit Down Restaurant)	1,999.10	2,115.30	2,115.30	5,538,566	5,538,566
Library	248.64	92.58	92.58	627,176	627,176
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>3,187.14</b>	<b>3,281.88</b>	<b>3,281.88</b>	<b>9,002,096</b>	<b>9,002,096</b>

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Health Club	9.50	7.30	7.30	16.90	64.10	19.00	100	0	0
High Turnover (Sit Down)	9.50	7.30	7.30	8.50	72.50	19.00	100	0	0
Library	9.50	7.30	7.30	52.00	43.00	5.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

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: Y

### 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	445.4799	445.4799	0.0201	4.1700e-003	447.1949
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	445.4799	445.4799	0.0201	4.1700e-003	447.1949
Natural Gas Mitigated	0.0218	0.1982	0.1665	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	215.7711	215.7711	4.1400e-003	3.9600e-003	217.0842
Natural Gas Unmitigated	0.0218	0.1982	0.1665	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	215.7711	215.7711	4.1400e-003	3.9600e-003	217.0842

## 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					
General Office Building	97898.5	5.3000e-004	4.8000e-003	4.0300e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.2242	5.2242	1.0000e-004	1.0000e-004	5.2560
Health Club	43136	2.3000e-004	2.1100e-003	1.7800e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3019	2.3019	4.0000e-005	4.0000e-005	2.3159
High Turnover (Sit Down Restaurant)	3.84844e+006	0.0208	0.1887	0.1585	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	205.3676	205.3676	3.9400e-003	3.7700e-003	206.6174
Library	53920	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8774	2.8774	6.0000e-005	5.0000e-005	2.8949
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
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0218</b>	<b>0.1982</b>	<b>0.1665</b>	<b>1.1900e-003</b>		<b>0.0151</b>	<b>0.0151</b>		<b>0.0151</b>	<b>0.0151</b>	<b>0.0000</b>	<b>215.7711</b>	<b>215.7711</b>	<b>4.1400e-003</b>	<b>3.9600e-003</b>	<b>217.0842</b>

### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	97898.5	5.3000e-004	4.8000e-003	4.0300e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.2242	5.2242	1.0000e-004	1.0000e-004	5.2560
Health Club	43136	2.3000e-004	2.1100e-003	1.7800e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3019	2.3019	4.0000e-005	4.0000e-005	2.3159
High Turnover (Sit Down Restaurant)	3.84844e+006	0.0208	0.1887	0.1585	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	205.3676	205.3676	3.9400e-003	3.7700e-003	206.6174
Library	53920	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8774	2.8774	6.0000e-005	5.0000e-005	2.8949
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
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0218</b>	<b>0.1982</b>	<b>0.1665</b>	<b>1.1900e-003</b>		<b>0.0151</b>	<b>0.0151</b>		<b>0.0151</b>	<b>0.0151</b>	<b>0.0000</b>	<b>215.7711</b>	<b>215.7711</b>	<b>4.1400e-003</b>	<b>3.9600e-003</b>	<b>217.0842</b>

## 5.3 Energy by Land Use - Electricity

### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	60424	17.5780	7.9000e-004	1.6000e-004	17.6457
Health Club	13840	4.0262	1.8000e-004	4.0000e-005	4.0417
High Turnover (Sit Down Restaurant)	694517	202.0429	9.1400e-003	1.8900e-003	202.8207
Library	17300	5.0328	2.3000e-004	5.0000e-005	5.0521
Parking Lot	745244	216.8000	9.8000e-003	2.0300e-003	217.6346
<b>Total</b>		<b>445.4799</b>	<b>0.0201</b>	<b>4.1700e-003</b>	<b>447.1948</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	60424	17.5780	7.9000e-004	1.6000e-004	17.6457
Health Club	13840	4.0262	1.8000e-004	4.0000e-005	4.0417
High Turnover (Sit Down Restaurant)	694517	202.0429	9.1400e-003	1.8900e-003	202.8207
Library	17300	5.0328	2.3000e-004	5.0000e-005	5.0521
Parking Lot	745244	216.8000	9.8000e-003	2.0300e-003	217.6346
<b>Total</b>		<b>445.4799</b>	<b>0.0201</b>	<b>4.1700e-003</b>	<b>447.1948</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.0121	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0000e-003
Unmitigated	4.0121	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0000e-003

**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	0.0335					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9786					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0000e-003
<b>Total</b>	<b>4.0121</b>	<b>0.0000</b>	<b>4.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>9.5000e-004</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-003</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0335					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9786					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0000e-003
<b>Total</b>	<b>4.0121</b>	<b>0.0000</b>	<b>4.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>9.5000e-004</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-003</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.8694	6.3000e-003	3.8400e-003	11.1916
Unmitigated	9.8694	6.3300e-003	3.8500e-003	11.1943

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0.1095 / 0	0.2111	1.4000e-004	9.0000e-005	0.2407
General Office Building	0.084636 / 0.051874	0.2160	1.1000e-004	7.0000e-005	0.2391
Health Club	0.076037 / 0.046603	0.1940	1.0000e-004	6.0000e-005	0.2148
High Turnover (Sit Down Restaurant)	4.61264 / 0.294424	9.1926	5.9600e-003	3.6200e-003	10.4398
Library	0.015801 / 0.024714	0.0556	2.0000e-005	1.0000e-005	0.0600
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>9.8694</b>	<b>6.3300e-003</b>	<b>3.8500e-003</b>	<b>11.1943</b>

#### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0.1095 / 0	0.2111	1.4000e-004	9.0000e-005	0.2406
General Office Building	0.084636 / 0.051874	0.2160	1.1000e-004	7.0000e-005	0.2390
Health Club	0.076037 / 0.046603	0.1940	1.0000e-004	6.0000e-005	0.2147
High Turnover (Sit Down Restaurant)	4.61264 / 0.294424	9.1926	5.9300e-003	3.6100e-003	10.4372
Library	0.015801 / 0.024714	0.0556	2.0000e-005	1.0000e-005	0.0600
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>9.8694</b>	<b>6.3000e-003</b>	<b>3.8400e-003</b>	<b>11.1916</b>

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	57.4647	3.3961	0.0000	128.7821
Mitigated	57.4647	3.3961	0.0000	128.7821

### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.28	0.0568	3.3600e-003	0.0000	0.1274
General Office Building	3.86	0.7836	0.0463	0.0000	1.7560
Health Club	9.12	1.8513	0.1094	0.0000	4.1488
High Turnover (Sit Down Restaurant)	267.99	54.3996	3.2149	0.0000	121.9129
Library	1.84	0.3735	0.0221	0.0000	0.8371
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>57.4647</b>	<b>3.3961</b>	<b>0.0000</b>	<b>128.7821</b>

#### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.28	0.0568	3.3600e-003	0.0000	0.1274
General Office Building	3.86	0.7836	0.0463	0.0000	1.7560
Health Club	9.12	1.8513	0.1094	0.0000	4.1488
High Turnover (Sit Down Restaurant)	267.99	54.3996	3.2149	0.0000	121.9129
Library	1.84	0.3735	0.0221	0.0000	0.8371
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>57.4647</b>	<b>3.3961</b>	<b>0.0000</b>	<b>128.7821</b>

## 9.0 Operational Offroad

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



A P P E N D I X  
A I R Q U A L I T Y A N D G R E E N H O U S E G A S  
B A C K G R O U N D A N D M O D E L I N G D A T A

5 C A L E E M O D O U T P U T -  
P R O P O S E D O P E R A T I O N

.....

**San Leandro Shoreline - Proposed Operation**  
**Alameda County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	150.00	1000sqft	2.30	150,000.00	0
Government (Civic Center)	15.00	1000sqft	0.34	15,000.00	0
Library	2.50	1000sqft	0.06	2,500.00	0
Enclosed Parking with Elevator	800.00	Space	7.20	320,000.00	0
Parking Lot	1,257.00	Space	8.91	502,800.00	0
City Park	14.48	Acre	14.48	630,748.80	0
High Turnover (Sit Down Restaurant)	5.00	1000sqft	0.11	5,000.00	0
High Turnover (Sit Down Restaurant)	8.00	1000sqft	0.18	8,000.00	0
High Turnover (Sit Down Restaurant)	8.00	1000sqft	0.18	8,000.00	0
Hotel	200.00	Room	2.47	107,550.00	0
Apartments Low Rise	159.00	Dwelling Unit	1.18	51,585.00	436
Condo/Townhouse	61.00	Dwelling Unit	0.47	20,665.00	167
Condo/Townhouse	64.00	Dwelling Unit	4.00	129,920.00	175
Condo/Townhouse	28.00	Dwelling Unit	1.75	53,200.00	77
Single Family Housing	42.00	Dwelling Unit	4.34	98,400.00	115

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	63
<b>Climate Zone</b>	5	<b>Operational Year</b>	2020		
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	641.35	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

- Project Characteristics -
- Land Use - Project Description, TIA (2014)
- Construction Phase - Modeling Operational Emissions Only
- Off-road Equipment - Modeling operational emissions only
- Trips and VMT - Modeling operational emissions only
- Demolition -
- Grading - Site balanced
- Architectural Coating - Modeling operational emissions only
- Vehicle Trips - Kittelson, 2014 with Internal Trip Capture
- Woodstoves - No woodstoves; 100% gas fireplaces
- Area Coating - Non-residential coatings methodology
- Energy Use - 2008 Building Standards
- Water And Wastewater - Water Supply Assessment, 2014; 100% aerobic
- Construction Off-road Equipment Mitigation - Operational emissions only
- Energy Mitigation - 2013 Building and Energy Efficiency Standards
- Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	630942	182993
tblAreaCoating	Area_Nonresidential_Interior	1892825	458475
tblConstructionPhase	NumDays	55.00	1.00
tblFireplaces	NumberGas	87.45	159.00
tblFireplaces	NumberGas	84.15	153.00
tblFireplaces	NumberGas	23.10	42.00
tblFireplaces	NumberNoFireplace	49.29	0.00
tblFireplaces	NumberNoFireplace	47.43	0.00
tblFireplaces	NumberWood	22.26	0.00
tblFireplaces	NumberWood	21.42	0.00
tblFireplaces	NumberWood	18.90	0.00
tblLandUse	LandUseSquareFeet	290,400.00	107,550.00
tblLandUse	LandUseSquareFeet	159,000.00	51,585.00
tblLandUse	LandUseSquareFeet	28,000.00	53,200.00
tblLandUse	LandUseSquareFeet	61,000.00	20,665.00
tblLandUse	LandUseSquareFeet	64,000.00	129,920.00
tblLandUse	LandUseSquareFeet	75,600.00	98,400.00
tblLandUse	LotAcreage	3.44	2.30
tblLandUse	LotAcreage	11.31	8.91
tblLandUse	LotAcreage	6.67	2.47
tblLandUse	LotAcreage	9.94	1.18
tblLandUse	LotAcreage	3.81	0.47
tblLandUse	LotAcreage	13.64	4.34
tblLandUse	Population	455.00	436.00
tblLandUse	Population	80.00	77.00
tblLandUse	Population	174.00	167.00
tblLandUse	Population	183.00	175.00
tblLandUse	Population	120.00	115.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	WorkerTripNumber	192.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	34.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	44.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	16.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00

tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	50.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	44.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	7.16	5.77
tblVehicleTrips	ST_TR	1.59	21.02
tblVehicleTrips	ST_TR	7.16	5.94
tblVehicleTrips	ST_TR	2.37	2.07
tblVehicleTrips	ST_TR	0.00	92.53
tblVehicleTrips	ST_TR	158.37	109.89
tblVehicleTrips	ST_TR	8.19	7.54
tblVehicleTrips	ST_TR	46.55	42.93
tblVehicleTrips	ST_TR	10.08	9.98
tblVehicleTrips	SU_TR	6.07	5.77
tblVehicleTrips	SU_TR	1.59	21.02
tblVehicleTrips	SU_TR	6.07	5.94
tblVehicleTrips	SU_TR	0.98	2.07
tblVehicleTrips	SU_TR	0.00	92.53
tblVehicleTrips	SU_TR	131.84	109.89
tblVehicleTrips	SU_TR	5.95	7.54
tblVehicleTrips	SU_TR	25.49	42.93
tblVehicleTrips	SU_TR	8.77	9.98
tblVehicleTrips	WD_TR	6.59	6.37
tblVehicleTrips	WD_TR	1.59	1.74
tblVehicleTrips	WD_TR	6.59	5.67
tblVehicleTrips	WD_TR	11.01	11.11
tblVehicleTrips	WD_TR	27.92	93.24
tblVehicleTrips	WD_TR	127.15	97.06
tblVehicleTrips	WD_TR	8.17	6.61
tblVehicleTrips	WD_TR	56.24	109.65
tblVehicleTrips	WD_TR	9.57	10.50
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

tblWater	AnaerobicandFacultativeLagoonsPerce	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPerce	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPerce	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPerce	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPerce	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPerce	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPerce	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPerce	2.21	0.00
tblWater	IndoorWaterUseRate	10,359,490.07	8,126,360.00
tblWater	IndoorWaterUseRate	9,968,565.92	4,757,614.00
tblWater	IndoorWaterUseRate	26,660,062.20	3,055,050.00
tblWater	IndoorWaterUseRate	2,979,895.29	1,939,617.00
tblWater	IndoorWaterUseRate	6,374,207.96	4,909,075.00
tblWater	IndoorWaterUseRate	5,073,354.00	8,758,796.00
tblWater	IndoorWaterUseRate	78,222.27	19,644.00
tblWater	IndoorWaterUseRate	2,736,469.08	2,171,954.00
tblWater	OutdoorWaterUseRate	6,530,982.87	5,123,140.00
tblWater	OutdoorWaterUseRate	17,252,649.94	0.00
tblWater	OutdoorWaterUseRate	6,284,530.69	2,999,366.00
tblWater	OutdoorWaterUseRate	16,340,038.12	1,872,450.00
tblWater	OutdoorWaterUseRate	1,826,387.43	1,188,798.00
tblWater	OutdoorWaterUseRate	406,864.34	313,345.00
tblWater	OutdoorWaterUseRate	563,706.00	973,200.00
tblWater	OutdoorWaterUseRate	122,347.65	30,726.00
tblWater	OutdoorWaterUseRate	1,725,165.29	1,369,276.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	0.80	0.00
tblWoodstoves	NumberCatalytic	0.77	0.00
tblWoodstoves	NumberCatalytic	1.47	0.00
tblWoodstoves	NumberNoncatalytic	0.80	0.00
tblWoodstoves	NumberNoncatalytic	0.77	0.00
tblWoodstoves	NumberNoncatalytic	1.47	0.00

## 2.0 Emissions Summary

### 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	8.7194	0.0307	2.6602	1.4000e-004		0.0169	0.0169		0.0168	0.0168	0.0000	37.0087	37.0087	4.9300e-003	6.0000e-004	37.2979
Energy	0.1114	0.9844	0.6439	6.0800e-003		0.0770	0.0770		0.0770	0.0770	0.0000	3,439.3283	3,439.3283	0.1268	0.0421	3,455.0335
Mobile	4.9249	14.9381	55.6304	0.1405	9.2389	0.2293	9.4682	2.4829	0.2113	2.6942	0.0000	10,019.3976	10,019.3976	0.3416	0.0000	10,026.5701
Waste						0.0000	0.0000		0.0000	0.0000	158.2863	0.0000	158.2863	9.3545	0.0000	354.7297
Water						0.0000	0.0000		0.0000	0.0000	11.9366	67.2305	79.1671	0.0441	0.0266	88.3357
<b>Total</b>	<b>13.7556</b>	<b>15.9531</b>	<b>58.9344</b>	<b>0.1467</b>	<b>9.2389</b>	<b>0.3231</b>	<b>9.5620</b>	<b>2.4829</b>	<b>0.3051</b>	<b>2.7880</b>	<b>170.2229</b>	<b>13,562.9651</b>	<b>13,733.1879</b>	<b>9.8719</b>	<b>0.0693</b>	<b>13,961.9669</b>

#### Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.7194	0.0307	2.6602	1.4000e-004		0.0169	0.0169		0.0168	0.0168	0.0000	37.0087	37.0087	4.9300e-003	6.0000e-004	37.2979
Energy	0.0900	0.7961	0.5260	4.9100e-003		0.0622	0.0622		0.0622	0.0622	0.0000	3,046.5612	3,046.5612	0.1146	0.0365	3,060.2810
Mobile	4.9249	14.9381	55.6304	0.1405	9.2389	0.2293	9.4682	2.4829	0.2113	2.6942	0.0000	10,019.3976	10,019.3976	0.3416	0.0000	10,026.5701
Waste						0.0000	0.0000		0.0000	0.0000	158.2863	0.0000	158.2863	9.3545	0.0000	354.7297
Water						0.0000	0.0000		0.0000	0.0000	9.5493	55.7474	65.2967	0.0352	0.0213	72.6240
<b>Total</b>	<b>13.7343</b>	<b>15.7649</b>	<b>58.8165</b>	<b>0.1455</b>	<b>9.2389</b>	<b>0.3083</b>	<b>9.5472</b>	<b>2.4829</b>	<b>0.2903</b>	<b>2.7733</b>	<b>167.8355</b>	<b>13,158.7149</b>	<b>13,326.5505</b>	<b>9.8507</b>	<b>0.0584</b>	<b>13,551.5027</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.16</b>	<b>1.18</b>	<b>0.20</b>	<b>0.80</b>	<b>0.00</b>	<b>4.57</b>	<b>0.15</b>	<b>0.00</b>	<b>4.84</b>	<b>0.53</b>	<b>1.40</b>	<b>2.98</b>	<b>2.96</b>	<b>0.21</b>	<b>15.75</b>	<b>2.94</b>

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.9249	14.9381	55.6304	0.1405	9.2389	0.2293	9.4682	2.4829	0.2113	2.6942	0.0000	10,019.3976	10,019.3976	0.3416	0.0000	10,026.5701
Unmitigated	4.9249	14.9381	55.6304	0.1405	9.2389	0.2293	9.4682	2.4829	0.2113	2.6942	0.0000	10,019.3976	10,019.3976	0.3416	0.0000	10,026.5701

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,012.83	917.43	917.43	2,477,840	2,477,840
City Park	25.20	304.37	304.37	306,635	306,635
Condo/Townhouse	345.87	362.34	362.34	881,386	881,386
Condo/Townhouse	362.88	380.16	380.16	924,733	924,733
Condo/Townhouse	158.76	166.32	166.32	404,571	404,571
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	1,666.50	310.50	310.50	3,736,761	3,736,761
Government (Civic Center)	1,398.60	1,387.95	1,387.95	4,546,446	4,546,446
High Turnover (Sit Down Restaurant)	485.30	549.45	549.45	1,372,523	1,372,523
High Turnover (Sit Down Restaurant)	776.48	879.12	879.12	2,196,037	2,196,037
High Turnover (Sit Down Restaurant)	776.48	879.12	879.12	2,196,037	2,196,037
Hotel	1,322.00	1,508.00	1,508.00	3,867,665	3,867,665
Library	274.13	107.33	107.33	696,075	696,075
Parking Lot	0.00	0.00	0.00		
Single Family Housing	441.00	419.16	419.16	1,093,035	1,093,035
Total	9,046.02	8,171.24	8,171.24	24,699,744	24,699,744

### 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 Low Rise	12.40	4.30	5.40	26.10	29.10	44.80	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Condo/Townhouse	12.40	4.30	5.40	26.10	29.10	44.80	100	0	0
Condo/Townhouse	12.40	4.30	5.40	26.10	29.10	44.80	100	0	0
Condo/Townhouse	12.40	4.30	5.40	26.10	29.10	44.80	100	0	0
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	100	0	0
High Turnover (Sit Down)	9.50	7.30	7.30	8.50	72.50	19.00	100	0	0
High Turnover (Sit Down)	9.50	7.30	7.30	8.50	72.50	19.00	100	0	0
High Turnover (Sit Down)	9.50	7.30	7.30	8.50	72.50	19.00	100	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	100	0	0
Library	9.50	7.30	7.30	52.00	43.00	5.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	12.40	4.30	5.40	26.10	29.10	44.80	100	0	0

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

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,155.9833	2,155.9833	0.0975	0.0202	2,164.2832
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,337.0674	2,337.0674	0.1057	0.0219	2,346.0644
NaturalGas Mitigated	0.0900	0.7961	0.5260	4.9100e-003		0.0622	0.0622		0.0622	0.0622	0.0000	890.5779	890.5779	0.0171	0.0163	895.9978
NaturalGas Unmitigated	0.1114	0.9844	0.6439	6.0800e-003		0.0770	0.0770		0.0770	0.0770	0.0000	1,102.2609	1,102.2609	0.0211	0.0202	1,108.9691

### 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					
Apartments Low Rise	3.72196e+006	0.0201	0.1715	0.0730	1.0900e-003		0.0139	0.0139		0.0139	0.0139	0.0000	198.6179	198.6179	3.8100e-003	3.6400e-003	199.8266
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	1.48164e+006	7.9900e-003	0.0683	0.0291	4.4000e-004		5.5200e-003	5.5200e-003		5.5200e-003	5.5200e-003	0.0000	79.0662	79.0662	1.5200e-003	1.4500e-003	79.5473
Condo/Townhouse	1.55451e+006	8.3800e-003	0.0716	0.0305	4.6000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	82.9547	82.9547	1.5900e-003	1.5200e-003	83.4595
Condo/Townhouse	680099	3.6700e-003	0.0313	0.0133	2.0000e-004		2.5300e-003	2.5300e-003		2.5300e-003	2.5300e-003	0.0000	36.2927	36.2927	7.0000e-004	6.7000e-004	36.5135
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
General Office Building	3.0435e+006	0.0164	0.1492	0.1253	9.0000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	162.4128	162.4128	3.1100e-003	2.9800e-003	163.4012
Government (Civic Center)	304350	1.6400e-003	0.0149	0.0125	9.0000e-005		1.1300e-003	1.1300e-003		1.1300e-003	1.1300e-003	0.0000	16.2413	16.2413	3.1000e-004	3.0000e-004	16.3401
High Turnover (Sit Down Restaurant)	1.36008e+006	0.0147	0.1333	0.1120	8.0000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	145.1581	145.1581	2.7800e-003	2.6600e-003	146.0415
High Turnover (Sit Down Restaurant)	850050	4.5800e-003	0.0417	0.0350	2.5000e-004		3.1700e-003	3.1700e-003		3.1700e-003	3.1700e-003	0.0000	45.3619	45.3619	8.7000e-004	8.3000e-004	45.6380
Hotel	4.09228e+006	0.0221	0.2006	0.1685	1.2000e-003		0.0153	0.0153		0.0153	0.0153	0.0000	218.3795	218.3795	4.1900e-003	4.0000e-003	219.7085
Library	64200	3.5000e-004	3.1500e-003	2.6400e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4260	3.4260	7.0000e-005	6.0000e-005	3.4468
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
Single Family Housing	2.14284e+006	0.0116	0.0987	0.0420	6.3000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	114.3501	114.3501	2.1900e-003	2.1000e-003	115.0460
<b>Total</b>		<b>0.1114</b>	<b>0.9844</b>	<b>0.6439</b>	<b>6.0800e-003</b>		<b>0.0770</b>	<b>0.0770</b>		<b>0.0770</b>	<b>0.0770</b>	<b>0.0000</b>	<b>1,102.2609</b>	<b>1,102.2609</b>	<b>0.0211</b>	<b>0.0202</b>	<b>1,108.9691</b>



**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	1.15624e+006	6.2300e-003	0.0533	0.0227	3.4000e-004		4.3100e-003	4.3100e-003		4.3100e-003	4.3100e-003	0.0000	61.7011	61.7011	1.1800e-003	1.1300e-003	62.0766
Condo/Townhouse	1.2131e+006	6.5400e-003	0.0559	0.0238	3.6000e-004		4.5200e-003	4.5200e-003		4.5200e-003	4.5200e-003	0.0000	64.7356	64.7356	1.2400e-003	1.1900e-003	65.1296
Condo/Townhouse	530731	2.8600e-003	0.0245	0.0104	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003	0.0000	28.3218	28.3218	5.4000e-004	5.2000e-004	28.4942
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
General Office Building	2.3205e+006	0.0125	0.1138	0.0956	6.8000e-004		8.6400e-003	8.6400e-003		8.6400e-003	8.6400e-003	0.0000	123.8307	123.8307	2.3700e-003	2.2700e-003	124.5843
Government (Civic Center)	232050	1.2500e-003	0.0114	9.5600e-003	7.0000e-005		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	12.3831	12.3831	2.4000e-004	2.3000e-004	12.4584
High Turnover (Sit Down Restaurant)	1.2761e+006	0.0138	0.1251	0.1051	7.5000e-004		9.5100e-003	9.5100e-003		9.5100e-003	9.5100e-003	0.0000	136.1951	136.1951	2.6100e-003	2.5000e-003	137.0240
High Turnover (Sit Down Restaurant)	797563	4.3000e-003	0.0391	0.0328	2.3000e-004		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	42.5610	42.5610	8.2000e-004	7.8000e-004	42.8200
Apartments Low Rise	2.90089e+006	0.0156	0.1337	0.0569	8.5000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	154.8024	154.8024	2.9700e-003	2.8400e-003	155.7445
Hotel	3.26092e+006	0.0176	0.1599	0.1343	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	174.0149	174.0149	3.3400e-003	3.1900e-003	175.0739
Library	52462.5	2.8000e-004	2.5700e-003	2.1600e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.7996	2.7996	5.0000e-005	5.0000e-005	2.8166
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
Single Family Housing	1.67216e+006	9.0200e-003	0.0771	0.0328	4.9000e-004		6.2300e-003	6.2300e-003		6.2300e-003	6.2300e-003	0.0000	89.2326	89.2326	1.7100e-003	1.6400e-003	89.7757
<b>Total</b>		<b>0.0900</b>	<b>0.7961</b>	<b>0.5260</b>	<b>4.9100e-003</b>		<b>0.0622</b>	<b>0.0622</b>		<b>0.0622</b>	<b>0.0622</b>	<b>0.0000</b>	<b>890.5779</b>	<b>890.5779</b>	<b>0.0171</b>	<b>0.0163</b>	<b>895.9978</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	565461	164.4992	7.4400e-003	1.5400e-003	165.1324
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	119355	34.7218	1.5700e-003	3.2000e-004	34.8555
Condo/Townhouse	260024	75.6440	3.4200e-003	7.1000e-004	75.9352
Condo/Townhouse	272812	79.3642	3.5900e-003	7.4000e-004	79.6697
Enclosed Parking with Elevator	2.1568e+006	627.4379	0.0284	5.8700e-003	629.8533
General Office Building	2.082e+006	605.6777	0.0274	5.6700e-003	608.0094
Government (Civic Center)	208200	60.5678	2.7400e-003	5.7000e-004	60.8009
High Turnover (Sit Down Restaurant)	151200	43.9858	1.9900e-003	4.1000e-004	44.1552
High Turnover (Sit Down Restaurant)	241920	140.7546	6.3600e-003	1.3200e-003	141.2965
Hotel	978705	284.7165	0.0129	2.6600e-003	285.8126
Library	20675	6.0146	2.7000e-004	6.0000e-005	6.0378
Parking Lot	442464	128.7179	5.8200e-003	1.2000e-003	129.2134
Single Family Housing	292067	84.9656	3.8400e-003	7.9000e-004	85.2927
<b>Total</b>		<b>2,337.0674</b>	<b>0.1057</b>	<b>0.0219</b>	<b>2,346.0644</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	560885	163.1679	7.3800e-003	1.5300e-003	163.7961
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	118405	34.4454	1.5600e-003	3.2000e-004	34.5780
Condo/Townhouse	257954	75.0418	3.3900e-003	7.0000e-004	75.3307
Condo/Townhouse	270640	78.7324	3.5600e-003	7.4000e-004	79.0355
Enclosed Parking with Elevator	1.8432e+06	536.2080	0.0243	5.0200e-003	538.2723
General Office Building	1.89413e+06	551.0227	0.0249	5.1500e-003	553.1440
Government (Civic Center)	189413	55.1023	2.4900e-003	5.2000e-004	55.3144
High Turnover (Sit Down Restaurant)	147125	42.8004	1.9400e-003	4.0000e-004	42.9651
High Turnover (Sit Down Restaurant)	235400	136.9611	6.1900e-003	1.2800e-003	137.4884
Hotel	906915	263.8321	0.0119	2.4700e-003	264.8478
Library	19750	5.7455	2.6000e-004	5.0000e-005	5.7676
Parking Lot	442464	128.7179	5.8200e-003	1.2000e-003	129.2134
Single Family Housing	289455	84.2059	3.8100e-003	7.9000e-004	84.5301
<b>Total</b>		<b>2,155.983</b>	<b>0.0975</b>	<b>0.0202</b>	<b>2,164.283</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	8.7194	0.0307	2.6602	1.4000e-004		0.0169	0.0169		0.0168	0.0168	0.0000	37.0087	37.0087	4.9300e-003	6.0000e-004	37.2979
Unmitigated	8.7194	0.0307	2.6602	1.4000e-004		0.0169	0.0169		0.0168	0.0168	0.0000	37.0087	37.0087	4.9300e-003	6.0000e-004	37.2979

**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	0.4189					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.2147					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.3000e-003	0.0000	1.8000e-004	0.0000		2.2800e-003	2.2800e-003		2.2600e-003	2.2600e-003	0.0000	32.6711	32.6711	6.3000e-004	6.0000e-004	32.8700
Landscaping	0.0825	0.0307	2.6600	1.4000e-004		0.0146	0.0146		0.0146	0.0146	0.0000	4.3376	4.3376	4.3000e-003	0.0000	4.4280
<b>Total</b>	<b>8.7194</b>	<b>0.0307</b>	<b>2.6602</b>	<b>1.4000e-004</b>		<b>0.0169</b>	<b>0.0169</b>		<b>0.0168</b>	<b>0.0168</b>	<b>0.0000</b>	<b>37.0087</b>	<b>37.0087</b>	<b>4.9300e-003</b>	<b>6.0000e-004</b>	<b>37.2979</b>

## Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4189					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.2147					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.3000e-003	0.0000	1.8000e-004	0.0000		2.2800e-003	2.2800e-003		2.2600e-003	2.2600e-003	0.0000	32.6711	32.6711	6.3000e-004	6.0000e-004	32.8700
Landscaping	0.0825	0.0307	2.6600	1.4000e-004		0.0146	0.0146		0.0146	0.0146	0.0000	4.3376	4.3376	4.3000e-003	0.0000	4.4280
<b>Total</b>	<b>8.7194</b>	<b>0.0307</b>	<b>2.6602</b>	<b>1.4000e-004</b>		<b>0.0169</b>	<b>0.0169</b>		<b>0.0168</b>	<b>0.0168</b>	<b>0.0000</b>	<b>37.0087</b>	<b>37.0087</b>	<b>4.9300e-003</b>	<b>6.0000e-004</b>	<b>37.2979</b>

## 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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	65.2967	0.0352	0.0213	72.6240
Unmitigated	79.1671	0.0441	0.0266	88.3357

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	8.12636 / 5.12314	20.8833	0.0107	6.4200e-003	23.0987
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	4.75761 / 2.99937	12.2262	6.2700e-003	3.7600e-003	13.5233
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	3.05505 / 1.87245	7.7964	4.0200e-003	2.4100e-003	8.6291
Government (Civic Center)	1.93962 / 1.1888	4.9499	2.5500e-003	1.5300e-003	5.4785
High Turnover (Sit Down Restaurant)	4.90907 / 0.313345	9.7834	6.3400e-003	3.8500e-003	11.1108
Hotel	8.7588 / 0.9732	17.8772	0.0113	6.8800e-003	20.2472
Library	0.019644 / 0.030726	0.0692	3.0000e-005	2.0000e-005	0.0746
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.17195 / 1.36928	5.5815	2.8600e-003	1.7200e-003	6.1737
<b>Total</b>		<b>79.1671</b>	<b>0.0441</b>	<b>0.0266</b>	<b>88.3357</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	6.50109 / 4.81063	17.4317	8.5600e-003	5.1300e-003	19.2032
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.80609 / 2.8164	10.2055	5.0100e-003	3.0100e-003	11.2426
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	2.44404 / 1.75823	6.5021	3.2100e-003	1.9300e-003	7.1679
Government (Civic Center)	1.55169 / 1.11628	4.1281	2.0400e-003	1.2300e-003	4.5508
High Turnover (Sit Down Restaurant)	3.92726 / 0.294231	7.8710	5.0500e-003	3.0800e-003	8.9309
Hotel	7.00704 / 0.913835	14.4395	9.0300e-003	5.4900e-003	16.3321
Library	0.0157152 /	0.0597	2.0000e-005	1.0000e-005	0.0640
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.73756 / 1.28575	4.6590	2.2900e-003	1.3700e-003	5.1325
<b>Total</b>		<b>65.2967</b>	<b>0.0352</b>	<b>0.0213</b>	<b>72.6240</b>

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	158.2863	9.3545	0.0000	354.7297
Mitigated	158.2863	9.3545	0.0000	354.7297

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	73.14	14.8468	0.8774	0.0000	33.2725
City Park	1.25	0.2537	0.0150	0.0000	0.5686
Condo/Townhouse	70.38	14.2865	0.8443	0.0000	32.0170
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	139.5	28.3172	1.6735	0.0000	63.4608
Government (Civic Center)	85.5	17.3557	1.0257	0.0000	38.8953
High Turnover (Sit Down Restaurant)	249.9	50.7274	2.9979	0.0000	113.6835
Hotel	109.5	22.2275	1.3136	0.0000	49.8133
Library	2.3	0.4669	0.0276	0.0000	1.0463
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	48.3	9.8045	0.5794	0.0000	21.9724
<b>Total</b>		<b>158.2863</b>	<b>9.3545</b>	<b>0.0000</b>	<b>354.7297</b>

### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	73.14	14.8468	0.8774	0.0000	33.2725
City Park	1.25	0.2537	0.0150	0.0000	0.5686
Condo/Townhouse	70.38	14.2865	0.8443	0.0000	32.0170
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	139.5	28.3172	1.6735	0.0000	63.4608
Government (Civic Center)	85.5	17.3557	1.0257	0.0000	38.8953
High Turnover (Sit Down Restaurant)	249.9	50.7274	2.9979	0.0000	113.6835
Hotel	109.5	22.2275	1.3136	0.0000	49.8133
Library	2.3	0.4669	0.0276	0.0000	1.0463
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	48.3	9.8045	0.5794	0.0000	21.9724
<b>Total</b>		<b>158.2863</b>	<b>9.3545</b>	<b>0.0000</b>	<b>354.7297</b>

## 9.0 Operational Offroad

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

**REDUCED DENSITY / INTENSITY ALTERNATIVE AIR  
QUALITY AND GREENHOUSE GAS BACKGROUND AND  
MODELING DATA**





**Operational Run - Full Project Buildout: CalEEMod Land Use Inputs (Alternative)**

All Information provided by Applicant, unless otherwise specified.

Type	Land Use Unit	Land Use Size	Lot Acreage	Land Use	Population and	Comments
	Amount	Metric		Square Feet	Employment <sup>1</sup>	
General Office Building	112.5	1000bsf	2.30	112,500	450	
Government Civic Center	11.25	1000bsf	0.26	11,250	45	Conference Center
Library	2.5	1000bsf	0.06	2,500	10	
High Turnover (Sit Down Restaurant)	5	1000bsf	0.11	5,000	20	5000SF full service restaurant
High Turnover (Sit Down Restaurant)	8	1000bsf	0.18	8,000	32	8000SF full service restaurant
High Turnover (Sit Down Restaurant)	6	1000bsf	0.14	6,000	48	8000SF café/boat rental facility
Hotel	150	Room	2.47	80,663	161	
Apartments Low Rise	119	Units	1.18	38,689	326	2010 Census (2.74 residents/Unit)
Condo/Townhouse	115	Units	4.67	152,839	315	2010 Census (2.74 residents/Unit)
Single Family	32	Units	3.26	73,800	88	2012 Census (2.74 residents/Unit)
Park/Open Space (City Park)	11.86	Acres	11.86	516,622	10	Acreage/empl. from TIA (2014)
Enclosed Parking with Elevator	800	Spaces	7.20	320,000		Parking Structure
Parking Lot	1,257	Spaces	8.91	502,800		Total 2057 spaces to be provided
<b>Total</b>			42.6			
			Residents:	729	Employees:	776
					Service Population:	1,505

Source

- <sup>1</sup> Based on a population of 1 employee per 250SF for office space/library/conf. center, 1 employee for 500 SF for restaurant, and 0.9 employees per hotel room (National Employment Matrix, US Bureau of Labor Statistics, 2012, SCAG).

Project Location: Alameda County  
 Climate Zone: 5  
 Operation Year: 2020  
 Land Use Setting: Urban  
 Utility Company: PG&E

**Architectural Coating**

Non-Residential Architectural Coating\*

Nonresidential Structures	Landuse SF	CalEEMod	Total Paintable	Paintable	Paintable Exterior
		Application Factor			
General Office Building	112,500	2	225,000	168,750	56,250
Government Civic Center	11,250	2	22,500	16,875	5,625
Library	2,500	2	5,000	3,750	1,250
High Turnover (Sit Down Restaurant)	5,000	2	10,000	7,500	2,500
High Turnover (Sit Down Restaurant)	8,000	2	16,000	12,000	4,000
High Turnover (Sit Down Restaurant)	6,000	2	12,000	9,000	3,000
Hotel	80,663	2	161,325	120,994	40,331
Park/Open Space (City Park)	516,622	0	0	0	0
Enclosed Parking with Elevator	320,000	0.06	19,200	14,400	4,800
Parking Lot	502,800	0.06	30,168	0	30,168
<b>Total</b>			<b>501,193</b>	<b>353,269</b>	<b>147,924</b>

\*CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively. Architectural coatings for the parking lot/structure are based on CalEEMod methodology applied to a surface parking lot (i.e., striping), in which 6% of surface area is painted. No painting assumed for park/open space.

**Fireplaces:** Assumes 100% gas fireplaces for residences.

**Energy:** The new residential are 25 more efficient than the 2008 Standards under 2013 Building and Energy Efficiency Standards while new non-residential buildings are 30 percent more efficient than the 2008 Standards than under the 2013 Building and Energy Efficiency Standards (effective July 1, 2014). Future cycle updates anticipated to be more efficient. For the purpose of modeling, buildings are assumed to be 25% more energy efficient than the 2008 standards in the CalEEMod program.



**Operational Run - Full Project Buildout: CalEEMod Land Use Inputs (Alternative)**

**Water/Wastewater:**

	CalEEMod Defaults (gal/yr)			Water Supply Assessment (gal/yr) <sup>1</sup>		
	Indoor	Outdoor	indoor ratio <sup>2</sup>	Total	Indoor	Outdoor
Apartments Low Rise	7,753,329	4,887,968	0.61	9,937,125	6,094,770	3,842,355
Park/Open Space (City Park) <sup>3</sup>	0	14,130,969	0.00	0	0	0
Condo/Townhouse	7,492,713	4,723,667	0.61	5,817,735	3,568,211	2,249,524
General Office Building	19,995,047	12,255,029	0.62	4,927,500	3,055,050	1,872,450
Government Civic Center	2,234,921	1,369,791	0.62	2,346,311	1,454,713	891,598
High Turnover (Sit Down Restaurant)	5,767,141	368,115	0.94	3,916,815	3,681,806	235,009
Hotel	3,805,016	422,780	0.90	7,298,996	6,569,097	729,900
Library	78,222	122,348	0.39	37,778	14,733	23,044
Single Family	2,084,929	1,314,412	0.61	2,655,923	1,628,966	1,026,957
<b>TOTAL</b>				<b>36,938,183</b>		

<sup>1</sup> Source: Water Supply Assessment (WSA) - City of San Leandro Shoreside Development Project, EBMUD 2014.

<sup>2</sup> Source: Indoor/Outdoor water use ratio based on CalEEMod defaults from *Waste Not, Want Not: The Potential for Urban Water Conservation in California* by the Pacific Institute for Studies in Development, Environment, and Security (Nov. 2003).

<sup>3</sup> No public restrooms or other significant water usage evaluated in WSA for the Open Space/Pedestrian Pier/Promenade areas.

<sup>4</sup> Assumed 100% aerobic treatment and digestion of wastewater.

**Waste: CalEEMod Defaults**

**Trip Generation and VMT \***

	Weekday Trips			Saturday Trips (minus internal trips)		
	Weekday Trips	(minus internal trips)	Weekday Trip Rate	Saturday Trips	(minus internal trips)	Saturday Trip Rate
Apartments Low Rise	845	789	6.63	771	714	6.00
Park/Open Space (City Park)	22	21	1.73	268	248	20.91
Condo/Townhouse	726	678	5.89	766	709	6.16
General Office Building	1,436	1340	11.92	270	250	2.22
Government Civic Center	1,125	1050	93.35	1,125	1041	92.53
Restaurants + Café	1,640	1531	80.57	1,871	1731	91.12
Hotel	969	905	6.03	1,114	1031	6.87
Library	294	274	109.78	116	107	42.93
Single Family	368	344	10.73	352	326	10.19
<b>Total</b>	<b>7,425</b>	<b>6,931</b>		<b>6,653</b>	<b>6,156</b>	
Internal Trips	-494			-497		
<b>New External Trips</b>	<b>6,931</b>			<b>6,156</b>		
Trip Capture %	7%			7%		
Primary %	93%			93%		

\* Trip generation rates provided by Kittelson & Associates, Inc. (TIA, 2014), taking into account internal trip capture. CalEEMod defaults adjusted to reflect data provided by Kittelson & Assoc., and assume 100% of trips are primary trips to avoid double-counting of reductions.

## Criteria Air Pollutant Emissions Summary - Operations

### Existing Land Uses - 2014 Emission Rates

	Tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		4.01	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Energy Use		0.02	0.20	0.17	0.00		0.02	0.02		0.02	0.02
Mobile Sources		2.90	9.51	32.35	0.05	3.36	0.15	3.51	0.90	0.14	1.04
Waste Generation							0.00	0.00		0.00	0.00
Water/Wastewater							0.00	0.00		0.00	0.00
Boats		26.2	8.88	127.6	0.26		1.56	1.56		1.56	1.56
<b>Total</b>		<b>33.17</b>	<b>18.59</b>	<b>160.07</b>	<b>0.32</b>	<b>3.36</b>	<b>1.72</b>	<b>5.08</b>	<b>0.90</b>	<b>1.71</b>	<b>2.61</b>

### Existing Land Uses - 2020 Emission Rates

	Tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		4.01	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Energy Use		0.02	0.20	0.17	0.00		0.02	0.02		0.02	0.02
Mobile Sources		1.80	5.45	20.30	0.05	3.37	0.08	3.45	0.90	0.08	0.98
Waste Generation							0.00	0.00		0.00	0.00
Water/Wastewater							0.00	0.00		0.00	0.00
Boats		26.2	8.88	127.6	0.26		1.56	1.56		1.56	1.56
<b>Total</b>		<b>32.08</b>	<b>14.52</b>	<b>148.02</b>	<b>0.32</b>	<b>3.37</b>	<b>1.66</b>	<b>5.02</b>	<b>0.90</b>	<b>1.65</b>	<b>2.55</b>

### Proposed Project - 2020 Emission Rates

	Tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		8.72	0.03	2.66	0.00		0.02	0.02		0.02	0.02
Energy Use		0.09	0.80	0.53	0.00		0.06	0.06		0.06	0.06
Mobile Sources		4.92	14.94	55.63	0.14	9.24	0.23	9.47	2.48	0.21	2.69
Waste Generation							0.00	0.00		0.00	0.00
Water/Wastewater							0.00	0.00		0.00	0.00
<b>Total</b>		<b>13.73</b>	<b>15.76</b>	<b>58.82</b>	<b>0.15</b>	<b>9.24</b>	<b>0.31</b>	<b>9.55</b>	<b>2.48</b>	<b>0.29</b>	<b>2.77</b>

### Net GHG Emissions (2020 Project - 2020 Existing)

	Tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		4.71	0.03	2.66	0.00	0.00	0.02	0.02	0.00	0.02	0.02
Energy Use		0.07	0.60	0.36	0.00	0.00	0.05	0.05	0.00	0.05	0.05
Mobile Sources		3.13	9.49	35.33	0.09	5.87	0.15	6.02	1.58	0.13	1.71
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boats		-26.24	-8.88	-127.55	-0.26	0.00	-1.56	-1.56	0.00	-1.56	-1.56
<b>Total</b>		<b>-18.34</b>	<b>1.24</b>	<b>-89.20</b>	<b>-0.17</b>	<b>5.87</b>	<b>-1.35</b>	<b>4.52</b>	<b>1.58</b>	<b>-1.36</b>	<b>0.22</b>
BAAQMD Threshold (Annual)		10	10 NA	NA	NA	NA	NA	15 NA	NA	NA	10
Exceeds Threshold		No	No NA	NA	NA	NA	NA	No NA	NA	NA	No

Alternative - 2020 Emission Rates

	Tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		7.53	0.02	2.00	0.00		0.01	0.01		0.01	0.01
Energy Use		0.07	0.62	0.42	0.00		0.05	0.05		0.05	0.05
Mobile Sources		3.76	11.40	42.44	0.11	7.05	0.17	7.22	1.89	0.16	2.06
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>		<b>11.36</b>	<b>12.04</b>	<b>44.86</b>	<b>0.11</b>	<b>7.05</b>	<b>0.24</b>	<b>7.28</b>	<b>1.89</b>	<b>0.22</b>	<b>2.12</b>

Compare Alternative to the Project

	lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		-1.19	-0.01	-0.66	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00
Energy Use		-0.02	-0.17	-0.11	0.00	0.00	-0.01	-0.01	0.00	-0.01	-0.01
Mobile Sources		-1.17	-3.54	-13.19	-0.03	-2.19	-0.05	-2.24	-0.59	-0.05	-0.64
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boats		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>		<b>-2.37</b>	<b>-3.72</b>	<b>-13.96</b>	<b>-0.03</b>	<b>-2.19</b>	<b>-0.07</b>	<b>-2.26</b>	<b>-0.59</b>	<b>-0.07</b>	<b>-0.66</b>

Alternative Change from 2014

	lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		3.52	0.02	2.00	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Energy Use		0.05	0.43	0.25	0.00	0.00	0.03	0.03	0.00	0.03	0.03
Mobile Sources		1.96	5.95	22.14	0.06	3.68	0.09	3.77	0.99	0.08	1.07
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boats		-26.24	-8.88	-127.55	-0.26	0.00	-1.56	-1.56	0.00	-1.56	-1.56
<b>Total</b>		<b>-20.72</b>	<b>-2.48</b>	<b>-103.16</b>	<b>-0.21</b>	<b>3.68</b>	<b>-1.42</b>	<b>2.26</b>	<b>0.99</b>	<b>-1.43</b>	<b>-0.44</b>

## Criteria Air Pollutant Emissions Summary - Operations

Annual emissions divided by 365 days/year to obtain average daily emissions.

Existing Land Uses - 2014 Emission Rates											
	lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		21.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy Use		0.12	1.09	0.91	0.01	0.00	0.08	0.08	0.00	0.08	0.08
Mobile Sources		15.87	52.13	177.26	0.28	18.43	0.81	19.24	4.95	0.74	5.70
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boats		143.8	48.65	698.9	1.45		8.53	8.53		8.53	8.53
<b>Total</b>		<b>181.78</b>	<b>101.87</b>	<b>877.11</b>	<b>1.73</b>	<b>18.43</b>	<b>9.43</b>	<b>27.86</b>	<b>4.95</b>	<b>9.36</b>	<b>14.31</b>
Total Without Boats		37.97	53.21	178.18	0.28	18.43	0.89	19.33	4.95	0.83	5.78

Existing Land Uses - 2020 Emission Rates											
	lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		21.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy Use		0.12	1.09	0.91	0.01	0.00	0.08	0.08	0.00	0.08	0.08
Mobile Sources		9.85	29.85	111.22	0.28	18.45	0.46	18.91	4.96	0.42	5.38
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boats		143.8	48.65	698.9	1.45		8.53	8.53		8.53	8.53
<b>Total</b>		<b>175.76</b>	<b>79.58</b>	<b>811.06</b>	<b>1.74</b>	<b>18.45</b>	<b>9.07</b>	<b>27.52</b>	<b>4.96</b>	<b>9.04</b>	<b>14.00</b>
Total Without Boats		31.96	30.93	112.13	0.29	18.45	0.54	18.99	4.96	0.50	5.46

Proposed Project - 2020 Emission Rates											
	lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		47.78	0.17	14.58	0.00	0.00	0.09	0.09	0.00	0.09	0.09
Energy Use		0.49	4.36	2.88	0.03	0.00	0.34	0.34	0.00	0.34	0.34
Mobile Sources		26.99	81.85	304.82	0.77	50.62	1.26	51.88	13.60	1.16	14.76
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boats		143.8	48.65	698.9	1.45		8.53	8.53		8.53	8.53
<b>Total</b>		<b>75.26</b>	<b>86.38</b>	<b>322.28</b>	<b>0.80</b>	<b>50.62</b>	<b>1.69</b>	<b>52.31</b>	<b>13.60</b>	<b>1.59</b>	<b>15.20</b>

Net GHG Emissions (2020 Project - 2020 Existing)											
	lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		25.79	0.17	14.57	0.00	0.00	0.09	0.09	0.00	0.09	0.09
Energy Use		0.37	3.28	1.97	0.02	0.00	0.26	0.26	0.00	0.26	0.26
Mobile Sources		17.13	52.01	193.61	0.49	32.17	0.80	32.97	8.65	0.74	9.38
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boats		-143.81	-48.65	-698.93	-1.45	0.00	-8.53	-8.53	0.00	-8.53	-8.53
<b>Total</b>		<b>-100.51</b>	<b>6.80</b>	<b>-488.78</b>	<b>-0.94</b>	<b>32.17</b>	<b>-7.38</b>	<b>24.79</b>	<b>8.65</b>	<b>-7.45</b>	<b>1.20</b>
BAAQMD Threshold (Daily)		54	54 NA	NA	NA	NA	NA	82 NA	NA	NA	54
Exceeds Threshold		No	No NA	NA	NA	NA	NA	No NA	NA	NA	No
Net Increase without Boats		43.30	55.45	210.15	0.51	32.17	1.15	33.32	8.65	1.09	9.73

Alternative - 2020 Emission Rates

	lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		41.28	0.13	10.98	0.00	0.00	0.07	0.07	0.00	0.07	0.07
Energy Use		0.39	3.42	2.28	0.02	0.00	0.27	0.27	0.00	0.27	0.27
Mobile Sources		20.59	62.45	232.55	0.59	38.62	0.96	39.58	10.38	0.88	11.26
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		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	0.00	0.00	0.00	0.00
<b>Total</b>		<b>62.25</b>	<b>65.99</b>	<b>245.81</b>	<b>0.61</b>	<b>38.62</b>	<b>1.29</b>	<b>39.92</b>	<b>10.38</b>	<b>1.22</b>	<b>11.60</b>

Compare Alternative to the Project

	lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		-6.50	-0.04	-3.60	0.00	0.00	-0.03	-0.03	0.00	-0.03	-0.03
Energy Use		-0.11	-0.94	-0.60	-0.01	0.00	-0.07	-0.07	0.00	-0.07	-0.07
Mobile Sources		-6.40	-19.40	-72.27	-0.18	-12.00	-0.30	-12.30	-3.22	-0.27	-3.50
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boats		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>		<b>-13.00</b>	<b>-20.39</b>	<b>-76.47</b>	<b>-0.19</b>	<b>-12.00</b>	<b>-0.40</b>	<b>-12.40</b>	<b>-3.22</b>	<b>-0.38</b>	<b>-3.60</b>

Alternative Change from 2014

	lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area Sources		41.16	-0.96	10.07	-0.01	0.00	-0.02	-0.02	0.00	-0.02	-0.02
Energy Use		-9.47	-26.43	-108.93	-0.26	-18.45	-0.19	-18.64	-4.96	-0.16	-5.11
Mobile Sources		20.59	62.45	232.55	0.59	38.62	0.96	39.58	10.38	0.88	11.26
Waste Generation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water/Wastewater		-143.81	-48.65	-698.93	-1.45	0.00	-8.53	-8.53	0.00	-8.53	-8.53
Boats		-175.76	-79.58	-811.06	-1.74	-18.45	-9.07	-27.52	-4.96	-9.04	-14.00
<b>Total</b>		<b>30.30</b>	<b>35.06</b>	<b>133.68</b>	<b>0.32</b>	<b>20.17</b>	<b>0.75</b>	<b>20.92</b>	<b>5.42</b>	<b>0.71</b>	<b>6.13</b>

## Greenhouse Gas Emissions Summary

### Existing Land Uses - 2014 Emission Rates

	<b>MT/yr</b>	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	<b>CO2e</b>
Area Sources		0	0	0	0	0	<b>0</b>
Energy Use		0	661	661	0	0	<b>664</b>
Mobile Sources		0	4,294	4,294	0	0	<b>4,298</b>
Waste Generation		57	0	57	3	0	<b>129</b>
Water/Wastewater		2	8	10	0	0	<b>11</b>
Boat				39	0	0	<b>39</b>
Total		59	4,963	5,061	4	0	<b>5,141</b>
Total without Waste Generation		2	4,963	5,004	0	0	<b>5,013</b>
Service Population							<b>460</b>
MTCO2e/SP							<b>11.2</b>
MTCO2e/SP without Waste							<b>10.9</b>

### Proposed Project - 2020 Emission Rates

	<b>MT/yr</b>	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	<b>CO2e</b>
Area Sources		0	37	37	0	0	<b>37</b>
Energy Use		0	3,047	3,047	0	0	<b>3,060</b>
Mobile Sources		0	10,019	10,019	0	0	<b>10,027</b>
Waste Generation		158	0	158	9	0	<b>355</b>
Water/Wastewater		10	56	65	0	0	<b>73</b>
Total		168	13,159	13,327	10	0	<b>13,552</b>
Total without Waste Generation		10	13,159	13,168	0	0	<b>13,197</b>
Service Population							<b>1,973</b>
MTCO2e/SP							<b>6.9</b>
MTCO2e/SP without Waste							<b>6.7</b>

### Net GHG Emissions

	<b>MT/yr</b>	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	<b>CO2e</b>
Area Sources		0	37	37	0	0	<b>37</b>
Energy Use		0	2,385	2,385	0	0	<b>2,396</b>
Mobile Sources		0	5,726	5,726	0	0	<b>5,729</b>
Waste Generation		101	0	101	6	0	<b>226</b>
Water/Wastewater		8	48	55	0	0	<b>61</b>
Boat		0	0	-39	0	0	<b>-39</b>
Total		109	8,196	8,265	6	0	<b>8,410</b>
Total without Waste Generation		8	8,196	8,165	0	0	<b>8,184</b>

Alternative Project - 2020 Emission Rates

	<b>MT/yr</b>	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	<b>CO2e</b>
Area Sources		0	17	17	0	0	<b>17</b>
Energy Use		0	2,511	2,511	0	2	<b>2,522</b>
Mobile Sources		0	7,644	7,644	0	0	<b>7,650</b>
Waste Generation		127	0	127	7	0	<b>284</b>
Water/Wastewater		7	43	51	0	0	<b>56</b>
<b>Total</b>		<b>134</b>	<b>10,215</b>	<b>10,350</b>	<b>8</b>	<b>0</b>	<b>10,529</b>
<b>Total without Waste Generation</b>		<b>7</b>	<b>10,215</b>	<b>10,223</b>	<b>0</b>	<b>0</b>	<b>10,245</b>
Service Population							<b>1,505</b>
MTCO2e/SP							<b>7.0</b>
MTCO2e/SP without Waste							<b>6.8</b>

Alternative Net GHG Emissions

	<b>MT/yr</b>	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	<b>CO2e</b>
Area Sources		0	17	17	0	0	<b>17</b>
Energy Use		0	1,850	1,850	0	2	<b>1,858</b>
Mobile Sources		0	3,351	3,351	0	0	<b>3,352</b>
Waste Generation		69	0	69	4	0	<b>155</b>
Water/Wastewater		6	35	41	0	0	<b>45</b>
Boat		0	0	-39	0	0	<b>-39</b>
<b>Total</b>		<b>75</b>	<b>5,252</b>	<b>5,288</b>	<b>4</b>	<b>0</b>	<b>5,388</b>
<b>Total without Waste Generation</b>		<b>6</b>	<b>5,252</b>	<b>5,219</b>	<b>0</b>	<b>0</b>	<b>5,233</b>

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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	11.25	1000sqft	0.26	11,250.00	0
General Office Building	112.50	1000sqft	2.30	112,500.00	0
Library	2.50	1000sqft	0.06	2,500.00	0
Enclosed Parking with Elevator	800.00	Space	7.20	320,000.00	0
Parking Lot	1,257.00	Space	8.91	502,800.00	0
City Park	11.86	Acre	11.86	516,621.60	0
High Turnover (Sit Down Restaurant)	5.00	1000sqft	0.11	5,000.00	0
High Turnover (Sit Down Restaurant)	8.00	1000sqft	0.18	8,000.00	0
High Turnover (Sit Down Restaurant)	6.00	1000sqft	0.14	6,000.00	0
Hotel	150.00	Room	2.47	80,663.00	0
Apartments Low Rise	119.00	Dwelling Unit	1.18	38,689.00	326
Condo/Townhouse	115.00	Dwelling Unit	4.67	152,839.00	315
Single Family Housing	32.00	Dwelling Unit	3.26	73,800.00	88

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	63
<b>Climate Zone</b>	5			<b>Operational Year</b>	2020
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006



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

Project Characteristics -

Land Use - Project Description, TIA (2014) with Reduced Density/Intensity Alternative

Vehicle Trips - Kittelson, 2014 with Internal Trip Capture for Reduced Density/Intensity Alternative

Woodstoves - No woodstoves; 100% gas fireplaces

Area Coating - Non-residential coatings methodology

Water And Wastewater - Water Supply Assessment, 2014; 100% aerobic. Adjusted water usage for Reduced Density/Intensity Alternative

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation - 2008 Building Standards

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	538810	147924
tblAreaCoating	Area_Nonresidential_Interior	1616429	353269
tblFireplaces	NumberGas	65.45	119.00
tblFireplaces	NumberGas	63.25	115.00
tblFireplaces	NumberGas	17.60	32.00
tblFireplaces	NumberNoFireplace	36.89	0.00
tblFireplaces	NumberNoFireplace	35.65	0.00
tblFireplaces	NumberWood	16.66	0.00
tblFireplaces	NumberWood	16.10	0.00
tblFireplaces	NumberWood	14.40	0.00
tblLandUse	LandUseSquareFeet	217,800.00	80,663.00
tblLandUse	LandUseSquareFeet	119,000.00	38,689.00
tblLandUse	LandUseSquareFeet	115,000.00	152,839.00
tblLandUse	LandUseSquareFeet	57,600.00	73,800.00
tblLandUse	LotAcreage	2.58	2.30

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tblLandUse	LotAcreage	11.31	8.91
tblLandUse	LotAcreage	5.00	2.47
tblLandUse	LotAcreage	7.44	1.18
tblLandUse	LotAcreage	7.19	4.67
tblLandUse	LotAcreage	10.39	3.26
tblLandUse	Population	340.00	326.00
tblLandUse	Population	329.00	315.00
tblLandUse	Population	92.00	88.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	34.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	44.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	16.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00

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tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	50.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	44.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	7.16	6.00
tblVehicleTrips	ST_TR	1.59	20.91
tblVehicleTrips	ST_TR	7.16	6.16
tblVehicleTrips	ST_TR	0.00	92.53
tblVehicleTrips	ST_TR	2.37	2.22
tblVehicleTrips	ST_TR	158.37	91.12
tblVehicleTrips	ST_TR	8.19	6.87
tblVehicleTrips	ST_TR	46.55	42.93
tblVehicleTrips	ST_TR	10.08	10.19
tblVehicleTrips	SU_TR	6.07	6.00
tblVehicleTrips	SU_TR	1.59	20.91
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	0.00	92.53
tblVehicleTrips	SU_TR	0.98	2.22
tblVehicleTrips	SU_TR	131.84	91.12
tblVehicleTrips	SU_TR	5.95	6.87
tblVehicleTrips	SU_TR	25.49	42.93
tblVehicleTrips	SU_TR	8.77	10.19





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tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	0.60	0.00
tblWoodstoves	NumberCatalytic	0.57	0.00
tblWoodstoves	NumberCatalytic	1.12	0.00
tblWoodstoves	NumberNoncatalytic	0.60	0.00
tblWoodstoves	NumberNoncatalytic	0.57	0.00
tblWoodstoves	NumberNoncatalytic	1.12	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					
2015	1.0395	8.6606	9.5378	0.0139	1.1034	0.3948	1.4982	0.4208	0.3662	0.7871	0.0000	1,218.4152	1,218.4152	0.1666	0.0000	1,221.9135
2016	1.3020	8.0901	13.6217	0.0241	1.2177	0.3217	1.5393	0.3290	0.3009	0.6299	0.0000	2,015.4297	2,015.4297	0.1353	0.0000	2,018.2701
2017	1.1831	7.3323	12.6546	0.0240	1.2130	0.2883	1.5013	0.3278	0.2696	0.5974	0.0000	1,956.9367	1,956.9367	0.1286	0.0000	1,959.6368
2018	8.0272	3.3977	5.7915	0.0116	0.5721	0.1377	0.7098	0.1544	0.1287	0.2831	0.0000	930.1790	930.1790	0.0737	0.0000	931.7264
<b>Total</b>	<b>11.5517</b>	<b>27.4806</b>	<b>41.6056</b>	<b>0.0736</b>	<b>4.1062</b>	<b>1.1425</b>	<b>5.2487</b>	<b>1.2320</b>	<b>1.0655</b>	<b>2.2975</b>	<b>0.0000</b>	<b>6,120.9606</b>	<b>6,120.9606</b>	<b>0.5041</b>	<b>0.0000</b>	<b>6,131.5468</b>



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### 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	7.5335	0.0231	2.0036	1.1000e-004		0.0119	0.0119		0.0119	0.0119	0.0000	16.7738	16.7738	3.5200e-003	2.5000e-004	16.9244
Energy	0.0867	0.7673	0.5068	4.7300e-003		0.0599	0.0599		0.0599	0.0599	0.0000	2,831.4096	2,831.4096	0.1057	0.0342	12,844.2291
Mobile	3.7570	11.3969	42.4406	0.1072	7.0490	0.1749	7.2239	1.8944	0.1612	2.0556	0.0000	7,644.4314	7,644.4314	0.2606	0.0000	17,649.9036
Waste						0.0000	0.0000		0.0000	0.0000	126.8511	0.0000	126.8511	7.4967	0.0000	284.2815
Water						0.0000	0.0000		0.0000	0.0000	9.2227	52.1018	61.3244	0.0341	0.0205	68.4091
<b>Total</b>	<b>11.3773</b>	<b>12.1873</b>	<b>44.9510</b>	<b>0.1120</b>	<b>7.0490</b>	<b>0.2468</b>	<b>7.2958</b>	<b>1.8944</b>	<b>0.2331</b>	<b>2.1275</b>	<b>136.0738</b>	<b>10,544.7165</b>	<b>10,680.7902</b>	<b>7.9006</b>	<b>0.0550</b>	<b>10,863.7477</b>



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### 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	7.5335	0.0231	2.0036	1.1000e-004		0.0119	0.0119		0.0119	0.0119	0.0000	16.7738	16.7738	3.5200e-003	2.5000e-004	16.9244
Energy	0.0705	0.6241	0.4168	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	2,510.9008	2,510.9008	0.0954	0.0298	2,522.1264
Mobile	3.7570	11.3969	42.4406	0.1072	7.0490	0.1749	7.2239	1.8944	0.1612	2.0556	0.0000	7,644.4314	7,644.4314	0.2606	0.0000	7,649.9036
Waste						0.0000	0.0000		0.0000	0.0000	126.8511	0.0000	126.8511	7.4967	0.0000	284.2815
Water						0.0000	0.0000		0.0000	0.0000	7.3781	43.2199	50.5981	0.0272	0.0164	56.2599
<b>Total</b>	<b>11.3610</b>	<b>12.0440</b>	<b>44.8610</b>	<b>0.1111</b>	<b>7.0490</b>	<b>0.2355</b>	<b>7.2845</b>	<b>1.8944</b>	<b>0.2218</b>	<b>2.1162</b>	<b>134.2292</b>	<b>10,215.3258</b>	<b>10,349.5551</b>	<b>7.8834</b>	<b>0.0464</b>	<b>10,529.4958</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.14</b>	<b>1.18</b>	<b>0.20</b>	<b>0.79</b>	<b>0.00</b>	<b>4.56</b>	<b>0.15</b>	<b>0.00</b>	<b>4.82</b>	<b>0.53</b>	<b>1.36</b>	<b>3.12</b>	<b>3.10</b>	<b>0.22</b>	<b>15.58</b>	<b>3.08</b>

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**3.0 Construction Detail**

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**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	3/11/2015	5	50	
2	Site Preparation	Site Preparation	3/12/2015	4/22/2015	5	30	
3	Grading	Grading	4/23/2015	8/5/2015	5	75	
4	Building Construction	Building Construction	8/6/2015	6/6/2018	5	740	
5	Paving	Paving	6/7/2018	8/22/2018	5	55	
6	Architectural Coating	Architectural Coating	8/23/2018	11/7/2018	5	55	

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

**Acres of Grading (Grading Phase): 187.5**

**Acres of Paving: 0**

**Residential Indoor: 537,289; Residential Outdoor: 179,096; Non-Residential Indoor: 1,616,428; Non-Residential Outdoor: 538,809**

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**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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#### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	825.00	285.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	165.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

#### 3.1 Mitigation Measures Construction

#### 3.2 Demolition - 2015

##### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1127	1.2091	0.9018	1.0000e-003		0.0613	0.0613		0.0571	0.0571	0.0000	93.6032	93.6032	0.0254	0.0000	94.1360
<b>Total</b>	<b>0.1127</b>	<b>1.2091</b>	<b>0.9018</b>	<b>1.0000e-003</b>		<b>0.0613</b>	<b>0.0613</b>		<b>0.0571</b>	<b>0.0571</b>	<b>0.0000</b>	<b>93.6032</b>	<b>93.6032</b>	<b>0.0254</b>	<b>0.0000</b>	<b>94.1360</b>

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### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.6100e-003	2.3700e-003	0.0230	4.0000e-005	3.4000e-003	3.0000e-005	3.4300e-003	9.1000e-004	3.0000e-005	9.3000e-004	0.0000	3.2063	3.2063	1.9000e-004	0.0000	3.2103
<b>Total</b>	<b>1.6100e-003</b>	<b>2.3700e-003</b>	<b>0.0230</b>	<b>4.0000e-005</b>	<b>3.4000e-003</b>	<b>3.0000e-005</b>	<b>3.4300e-003</b>	<b>9.1000e-004</b>	<b>3.0000e-005</b>	<b>9.3000e-004</b>	<b>0.0000</b>	<b>3.2063</b>	<b>3.2063</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>3.2103</b>

### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1127	1.2091	0.9018	1.0000e-003		0.0613	0.0613		0.0571	0.0571	0.0000	93.6031	93.6031	0.0254	0.0000	94.1359
<b>Total</b>	<b>0.1127</b>	<b>1.2091</b>	<b>0.9018</b>	<b>1.0000e-003</b>		<b>0.0613</b>	<b>0.0613</b>		<b>0.0571</b>	<b>0.0571</b>	<b>0.0000</b>	<b>93.6031</b>	<b>93.6031</b>	<b>0.0254</b>	<b>0.0000</b>	<b>94.1359</b>

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### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.6100e-003	2.3700e-003	0.0230	4.0000e-005	3.4000e-003	3.0000e-005	3.4300e-003	9.1000e-004	3.0000e-005	9.3000e-004	0.0000	3.2063	3.2063	1.9000e-004	0.0000	3.2103
<b>Total</b>	<b>1.6100e-003</b>	<b>2.3700e-003</b>	<b>0.0230</b>	<b>4.0000e-005</b>	<b>3.4000e-003</b>	<b>3.0000e-005</b>	<b>3.4300e-003</b>	<b>9.1000e-004</b>	<b>3.0000e-005</b>	<b>9.3000e-004</b>	<b>0.0000</b>	<b>3.2063</b>	<b>3.2063</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>3.2103</b>

### 3.3 Site Preparation - 2015

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0789	0.8533	0.6395	5.9000e-004		0.0463	0.0463		0.0426	0.0426	0.0000	55.9517	55.9517	0.0167	0.0000	56.3025
<b>Total</b>	<b>0.0789</b>	<b>0.8533</b>	<b>0.6395</b>	<b>5.9000e-004</b>	<b>0.2710</b>	<b>0.0463</b>	<b>0.3173</b>	<b>0.1490</b>	<b>0.0426</b>	<b>0.1916</b>	<b>0.0000</b>	<b>55.9517</b>	<b>55.9517</b>	<b>0.0167</b>	<b>0.0000</b>	<b>56.3025</b>

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#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.1600e-003	1.7100e-003	0.0166	3.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.3085	2.3085	1.4000e-004	0.0000	2.3114
<b>Total</b>	<b>1.1600e-003</b>	<b>1.7100e-003</b>	<b>0.0166</b>	<b>3.0000e-005</b>	<b>2.4500e-003</b>	<b>2.0000e-005</b>	<b>2.4700e-003</b>	<b>6.5000e-004</b>	<b>2.0000e-005</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>2.3085</b>	<b>2.3085</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>2.3114</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0789	0.8533	0.6395	5.9000e-004		0.0463	0.0463		0.0426	0.0426	0.0000	55.9516	55.9516	0.0167	0.0000	56.3024
<b>Total</b>	<b>0.0789</b>	<b>0.8533</b>	<b>0.6395</b>	<b>5.9000e-004</b>	<b>0.2710</b>	<b>0.0463</b>	<b>0.3173</b>	<b>0.1490</b>	<b>0.0426</b>	<b>0.1916</b>	<b>0.0000</b>	<b>55.9516</b>	<b>55.9516</b>	<b>0.0167</b>	<b>0.0000</b>	<b>56.3024</b>

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### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.1600e-003	1.7100e-003	0.0166	3.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.3085	2.3085	1.4000e-004	0.0000	2.3114
<b>Total</b>	<b>1.1600e-003</b>	<b>1.7100e-003</b>	<b>0.0166</b>	<b>3.0000e-005</b>	<b>2.4500e-003</b>	<b>2.0000e-005</b>	<b>2.4700e-003</b>	<b>6.5000e-004</b>	<b>2.0000e-005</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>2.3085</b>	<b>2.3085</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>2.3114</b>

### 3.4 Grading - 2015

### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2541	2.9643	1.9065	2.3200e-003		0.1426	0.1426		0.1312	0.1312	0.0000	220.6583	220.6583	0.0659	0.0000	222.0417
<b>Total</b>	<b>0.2541</b>	<b>2.9643</b>	<b>1.9065</b>	<b>2.3200e-003</b>	<b>0.3253</b>	<b>0.1426</b>	<b>0.4678</b>	<b>0.1349</b>	<b>0.1312</b>	<b>0.2661</b>	<b>0.0000</b>	<b>220.6583</b>	<b>220.6583</b>	<b>0.0659</b>	<b>0.0000</b>	<b>222.0417</b>



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### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	3.2200e-003	4.7400e-003	0.0460	8.0000e-005	6.8100e-003	6.0000e-005	6.8700e-003	1.8100e-003	6.0000e-005	1.8700e-003	0.0000	6.4125	6.4125	3.9000e-004	0.0000	6.4206
<b>Total</b>	<b>3.2200e-003</b>	<b>4.7400e-003</b>	<b>0.0460</b>	<b>8.0000e-005</b>	<b>6.8100e-003</b>	<b>6.0000e-005</b>	<b>6.8700e-003</b>	<b>1.8100e-003</b>	<b>6.0000e-005</b>	<b>1.8700e-003</b>	<b>0.0000</b>	<b>6.4125</b>	<b>6.4125</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>6.4206</b>

### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2541	2.9643	1.9065	2.3200e-003		0.1426	0.1426		0.1312	0.1312	0.0000	220.6580	220.6580	0.0659	0.0000	222.0414
<b>Total</b>	<b>0.2541</b>	<b>2.9643</b>	<b>1.9065</b>	<b>2.3200e-003</b>	<b>0.3253</b>	<b>0.1426</b>	<b>0.4678</b>	<b>0.1349</b>	<b>0.1312</b>	<b>0.2660</b>	<b>0.0000</b>	<b>220.6580</b>	<b>220.6580</b>	<b>0.0659</b>	<b>0.0000</b>	<b>222.0414</b>

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### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	3.2200e-003	4.7400e-003	0.0460	8.0000e-005	6.8100e-003	6.0000e-005	6.8700e-003	1.8100e-003	6.0000e-005	1.8700e-003	0.0000	6.4125	6.4125	3.9000e-004	0.0000	6.4206
<b>Total</b>	<b>3.2200e-003</b>	<b>4.7400e-003</b>	<b>0.0460</b>	<b>8.0000e-005</b>	<b>6.8100e-003</b>	<b>6.0000e-005</b>	<b>6.8700e-003</b>	<b>1.8100e-003</b>	<b>6.0000e-005</b>	<b>1.8700e-003</b>	<b>0.0000</b>	<b>6.4125</b>	<b>6.4125</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>6.4206</b>

### 3.5 Building Construction - 2015

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1939	1.5916	0.9935	1.4200e-003		0.1122	0.1122		0.1055	0.1055	0.0000	129.3170	129.3170	0.0325	0.0000	129.9984
<b>Total</b>	<b>0.1939</b>	<b>1.5916</b>	<b>0.9935</b>	<b>1.4200e-003</b>		<b>0.1122</b>	<b>0.1122</b>		<b>0.1055</b>	<b>0.1055</b>	<b>0.0000</b>	<b>129.3170</b>	<b>129.3170</b>	<b>0.0325</b>	<b>0.0000</b>	<b>129.9984</b>

## San Leandro Shoreline - Proposed Operation (Alternative)

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#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.2060	1.7569	2.3304	3.6300e-003	0.0977	0.0287	0.1264	0.0281	0.0264	0.0545	0.0000	333.1067	333.1067	3.0200e-003	0.0000	333.1700
Worker	0.1878	0.2766	2.6806	4.7400e-003	0.3969	3.6100e-003	0.4005	0.1056	3.3000e-003	0.1089	0.0000	373.8511	373.8511	0.0225	0.0000	374.3226
<b>Total</b>	<b>0.3939</b>	<b>2.0335</b>	<b>5.0110</b>	<b>8.3700e-003</b>	<b>0.4945</b>	<b>0.0323</b>	<b>0.5269</b>	<b>0.1336</b>	<b>0.0297</b>	<b>0.1633</b>	<b>0.0000</b>	<b>706.9578</b>	<b>706.9578</b>	<b>0.0255</b>	<b>0.0000</b>	<b>707.4926</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1939	1.5916	0.9935	1.4200e-003		0.1122	0.1122		0.1055	0.1055	0.0000	129.3168	129.3168	0.0325	0.0000	129.9982
<b>Total</b>	<b>0.1939</b>	<b>1.5916</b>	<b>0.9935</b>	<b>1.4200e-003</b>		<b>0.1122</b>	<b>0.1122</b>		<b>0.1055</b>	<b>0.1055</b>	<b>0.0000</b>	<b>129.3168</b>	<b>129.3168</b>	<b>0.0325</b>	<b>0.0000</b>	<b>129.9982</b>

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#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2060	1.7569	2.3304	3.6300e-003	0.0977	0.0287	0.1264	0.0281	0.0264	0.0545	0.0000	333.1067	333.1067	3.0200e-003	0.0000	333.1700
Worker	0.1878	0.2766	2.6806	4.7400e-003	0.3969	3.6100e-003	0.4005	0.1056	3.3000e-003	0.1089	0.0000	373.8511	373.8511	0.0225	0.0000	374.3226
<b>Total</b>	<b>0.3939</b>	<b>2.0335</b>	<b>5.0110</b>	<b>8.3700e-003</b>	<b>0.4945</b>	<b>0.0323</b>	<b>0.5269</b>	<b>0.1336</b>	<b>0.0297</b>	<b>0.1633</b>	<b>0.0000</b>	<b>706.9578</b>	<b>706.9578</b>	<b>0.0255</b>	<b>0.0000</b>	<b>707.4926</b>

#### **3.5 Building Construction - 2016**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4445	3.7201	2.4151	3.5000e-003		0.2567	0.2567		0.2412	0.2412	0.0000	316.0104	316.0104	0.0784	0.0000	317.6563
<b>Total</b>	<b>0.4445</b>	<b>3.7201</b>	<b>2.4151</b>	<b>3.5000e-003</b>		<b>0.2567</b>	<b>0.2567</b>		<b>0.2412</b>	<b>0.2412</b>	<b>0.0000</b>	<b>316.0104</b>	<b>316.0104</b>	<b>0.0784</b>	<b>0.0000</b>	<b>317.6563</b>

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#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.4456	3.7608	5.3260	8.9300e-003	0.2405	0.0566	0.2970	0.0691	0.0520	0.1211	0.0000	810.5189	810.5189	6.5600e-003	0.0000	810.6566
Worker	0.4119	0.6092	5.8805	0.0117	0.9772	8.3500e-003	0.9856	0.2599	7.6600e-003	0.2676	0.0000	888.9004	888.9004	0.0503	0.0000	889.9571
<b>Total</b>	<b>0.8575</b>	<b>4.3700</b>	<b>11.2065</b>	<b>0.0206</b>	<b>1.2177</b>	<b>0.0649</b>	<b>1.2826</b>	<b>0.3290</b>	<b>0.0597</b>	<b>0.3887</b>	<b>0.0000</b>	<b>1,699.4193</b>	<b>1,699.4193</b>	<b>0.0569</b>	<b>0.0000</b>	<b>1,700.6137</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4445	3.7201	2.4151	3.5000e-003		0.2567	0.2567		0.2412	0.2412	0.0000	316.0101	316.0101	0.0784	0.0000	317.6560
<b>Total</b>	<b>0.4445</b>	<b>3.7201</b>	<b>2.4151</b>	<b>3.5000e-003</b>		<b>0.2567</b>	<b>0.2567</b>		<b>0.2412</b>	<b>0.2412</b>	<b>0.0000</b>	<b>316.0101</b>	<b>316.0101</b>	<b>0.0784</b>	<b>0.0000</b>	<b>317.6560</b>

## San Leandro Shoreline - Proposed Operation (Alternative)

### Alameda County, Annual

#### 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	0.4456	3.7608	5.3260	8.9300e-003	0.2405	0.0566	0.2970	0.0691	0.0520	0.1211	0.0000	810.5189	810.5189	6.5600e-003	0.0000	810.6566
Worker	0.4119	0.6092	5.8805	0.0117	0.9772	8.3500e-003	0.9856	0.2599	7.6600e-003	0.2676	0.0000	888.9004	888.9004	0.0503	0.0000	889.9571
<b>Total</b>	<b>0.8575</b>	<b>4.3700</b>	<b>11.2065</b>	<b>0.0206</b>	<b>1.2177</b>	<b>0.0649</b>	<b>1.2826</b>	<b>0.3290</b>	<b>0.0597</b>	<b>0.3887</b>	<b>0.0000</b>	<b>1,699.4193</b>	<b>1,699.4193</b>	<b>0.0569</b>	<b>0.0000</b>	<b>1,700.6137</b>

#### **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	0.4033	3.4327	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3228	311.3228	0.0766	0.0000	312.9319
<b>Total</b>	<b>0.4033</b>	<b>3.4327</b>	<b>2.3568</b>	<b>3.4900e-003</b>		<b>0.2316</b>	<b>0.2316</b>		<b>0.2175</b>	<b>0.2175</b>	<b>0.0000</b>	<b>311.3228</b>	<b>311.3228</b>	<b>0.0766</b>	<b>0.0000</b>	<b>312.9319</b>

## San Leandro Shoreline - Proposed Operation (Alternative)

### Alameda County, Annual

#### 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	0.4165	3.3564	5.0907	8.8800e-003	0.2396	0.0488	0.2883	0.0688	0.0449	0.1137	0.0000	793.8482	793.8482	6.2000e-003	0.0000	793.9783
Worker	0.3633	0.5431	5.2071	0.0116	0.9735	7.9200e-003	0.9814	0.2589	7.2900e-003	0.2662	0.0000	851.7657	851.7657	0.0458	0.0000	852.7266
<b>Total</b>	<b>0.7798</b>	<b>3.8995</b>	<b>10.2978</b>	<b>0.0205</b>	<b>1.2130</b>	<b>0.0567</b>	<b>1.2697</b>	<b>0.3278</b>	<b>0.0522</b>	<b>0.3799</b>	<b>0.0000</b>	<b>1,645.6139</b>	<b>1,645.6139</b>	<b>0.0520</b>	<b>0.0000</b>	<b>1,646.7049</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4033	3.4327	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3225	311.3225	0.0766	0.0000	312.9315
<b>Total</b>	<b>0.4033</b>	<b>3.4327</b>	<b>2.3568</b>	<b>3.4900e-003</b>		<b>0.2316</b>	<b>0.2316</b>		<b>0.2175</b>	<b>0.2175</b>	<b>0.0000</b>	<b>311.3225</b>	<b>311.3225</b>	<b>0.0766</b>	<b>0.0000</b>	<b>312.9315</b>

## San Leandro Shoreline - Proposed Operation (Alternative)

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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	0.4165	3.3564	5.0907	8.8800e-003	0.2396	0.0488	0.2883	0.0688	0.0449	0.1137	0.0000	793.8482	793.8482	6.2000e-003	0.0000	793.9783
Worker	0.3633	0.5431	5.2071	0.0116	0.9735	7.9200e-003	0.9814	0.2589	7.2900e-003	0.2662	0.0000	851.7657	851.7657	0.0458	0.0000	852.7266
<b>Total</b>	<b>0.7798</b>	<b>3.8995</b>	<b>10.2978</b>	<b>0.0205</b>	<b>1.2130</b>	<b>0.0567</b>	<b>1.2697</b>	<b>0.3278</b>	<b>0.0522</b>	<b>0.3799</b>	<b>0.0000</b>	<b>1,645.6139</b>	<b>1,645.6139</b>	<b>0.0520</b>	<b>0.0000</b>	<b>1,646.7049</b>

### 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	0.1508	1.3142	0.9906	1.5100e-003		0.0844	0.0844		0.0794	0.0794	0.0000	133.7749	133.7749	0.0327	0.0000	134.4624
<b>Total</b>	<b>0.1508</b>	<b>1.3142</b>	<b>0.9906</b>	<b>1.5100e-003</b>		<b>0.0844</b>	<b>0.0844</b>		<b>0.0794</b>	<b>0.0794</b>	<b>0.0000</b>	<b>133.7749</b>	<b>133.7749</b>	<b>0.0327</b>	<b>0.0000</b>	<b>134.4624</b>



## San Leandro Shoreline - Proposed Operation (Alternative)

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### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1704	1.3216	2.1187	3.8500e-003	0.1041	0.0197	0.1238	0.0299	0.0181	0.0480	0.0000	339.0746	339.0746	2.6400e-003	0.0000	339.1301
Worker	0.1401	0.2122	2.0184	5.0500e-003	0.4231	3.3200e-003	0.4264	0.1125	3.0700e-003	0.1156	0.0000	356.4418	356.4418	0.0183	0.0000	356.8253
<b>Total</b>	<b>0.3105</b>	<b>1.5338</b>	<b>4.1370</b>	<b>8.9000e-003</b>	<b>0.5272</b>	<b>0.0230</b>	<b>0.5502</b>	<b>0.1425</b>	<b>0.0211</b>	<b>0.1636</b>	<b>0.0000</b>	<b>695.5164</b>	<b>695.5164</b>	<b>0.0209</b>	<b>0.0000</b>	<b>695.9554</b>

### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1508	1.3142	0.9906	1.5100e-003		0.0844	0.0844		0.0794	0.0794	0.0000	133.7747	133.7747	0.0327	0.0000	134.4622
<b>Total</b>	<b>0.1508</b>	<b>1.3142</b>	<b>0.9906</b>	<b>1.5100e-003</b>		<b>0.0844</b>	<b>0.0844</b>		<b>0.0794</b>	<b>0.0794</b>	<b>0.0000</b>	<b>133.7747</b>	<b>133.7747</b>	<b>0.0327</b>	<b>0.0000</b>	<b>134.4622</b>

## San Leandro Shoreline - Proposed Operation (Alternative)

### Alameda County, Annual

#### 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	0.1704	1.3216	2.1187	3.8500e-003	0.1041	0.0197	0.1238	0.0299	0.0181	0.0480	0.0000	339.0746	339.0746	2.6400e-003	0.0000	339.1301
Worker	0.1401	0.2122	2.0184	5.0500e-003	0.4231	3.3200e-003	0.4264	0.1125	3.0700e-003	0.1156	0.0000	356.4418	356.4418	0.0183	0.0000	356.8253
<b>Total</b>	<b>0.3105</b>	<b>1.5338</b>	<b>4.1370</b>	<b>8.9000e-003</b>	<b>0.5272</b>	<b>0.0230</b>	<b>0.5502</b>	<b>0.1425</b>	<b>0.0211</b>	<b>0.1636</b>	<b>0.0000</b>	<b>695.5164</b>	<b>695.5164</b>	<b>0.0209</b>	<b>0.0000</b>	<b>695.9554</b>

#### **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	0.0443	0.4720	0.3986	6.1000e-004		0.0258	0.0258		0.0238	0.0238	0.0000	56.0140	56.0140	0.0174	0.0000	56.3802
Paving	0.0117					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0560</b>	<b>0.4720</b>	<b>0.3986</b>	<b>6.1000e-004</b>		<b>0.0258</b>	<b>0.0258</b>		<b>0.0238</b>	<b>0.0238</b>	<b>0.0000</b>	<b>56.0140</b>	<b>56.0140</b>	<b>0.0174</b>	<b>0.0000</b>	<b>56.3802</b>

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### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.2400e-003	1.8800e-003	0.0179	4.0000e-005	3.7400e-003	3.0000e-005	3.7700e-003	1.0000e-003	3.0000e-005	1.0200e-003	0.0000	3.1544	3.1544	1.6000e-004	0.0000	3.1578
<b>Total</b>	<b>1.2400e-003</b>	<b>1.8800e-003</b>	<b>0.0179</b>	<b>4.0000e-005</b>	<b>3.7400e-003</b>	<b>3.0000e-005</b>	<b>3.7700e-003</b>	<b>1.0000e-003</b>	<b>3.0000e-005</b>	<b>1.0200e-003</b>	<b>0.0000</b>	<b>3.1544</b>	<b>3.1544</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>3.1578</b>

### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0443	0.4720	0.3986	6.1000e-004		0.0258	0.0258		0.0238	0.0238	0.0000	56.0140	56.0140	0.0174	0.0000	56.3802
Paving	0.0117					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0560</b>	<b>0.4720</b>	<b>0.3986</b>	<b>6.1000e-004</b>		<b>0.0258</b>	<b>0.0258</b>		<b>0.0238</b>	<b>0.0238</b>	<b>0.0000</b>	<b>56.0140</b>	<b>56.0140</b>	<b>0.0174</b>	<b>0.0000</b>	<b>56.3802</b>

## San Leandro Shoreline - Proposed Operation (Alternative)

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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	0.0000	0.0000	0.0000	0.0000	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	1.2400e-003	1.8800e-003	0.0179	4.0000e-005	3.7400e-003	3.0000e-005	3.7700e-003	1.0000e-003	3.0000e-005	1.0200e-003	0.0000	3.1544	3.1544	1.6000e-004	0.0000	3.1578
<b>Total</b>	<b>1.2400e-003</b>	<b>1.8800e-003</b>	<b>0.0179</b>	<b>4.0000e-005</b>	<b>3.7400e-003</b>	<b>3.0000e-005</b>	<b>3.7700e-003</b>	<b>1.0000e-003</b>	<b>3.0000e-005</b>	<b>1.0200e-003</b>	<b>0.0000</b>	<b>3.1544</b>	<b>3.1544</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>3.1578</b>

### 3.7 Architectural Coating - 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					
Archit. Coating	7.4869					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2100e-003	0.0552	0.0510	8.0000e-005		4.1400e-003	4.1400e-003		4.1400e-003	4.1400e-003	0.0000	7.0215	7.0215	6.7000e-004	0.0000	7.0355
<b>Total</b>	<b>7.4951</b>	<b>0.0552</b>	<b>0.0510</b>	<b>8.0000e-005</b>		<b>4.1400e-003</b>	<b>4.1400e-003</b>		<b>4.1400e-003</b>	<b>4.1400e-003</b>	<b>0.0000</b>	<b>7.0215</b>	<b>7.0215</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>7.0355</b>

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#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0136	0.0207	0.1965	4.9000e-004	0.0412	3.2000e-004	0.0415	0.0110	3.0000e-004	0.0113	0.0000	34.6979	34.6979	1.7800e-003	0.0000	34.7352
<b>Total</b>	<b>0.0136</b>	<b>0.0207</b>	<b>0.1965</b>	<b>4.9000e-004</b>	<b>0.0412</b>	<b>3.2000e-004</b>	<b>0.0415</b>	<b>0.0110</b>	<b>3.0000e-004</b>	<b>0.0113</b>	<b>0.0000</b>	<b>34.6979</b>	<b>34.6979</b>	<b>1.7800e-003</b>	<b>0.0000</b>	<b>34.7352</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	7.4869					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2100e-003	0.0552	0.0510	8.0000e-005		4.1400e-003	4.1400e-003		4.1400e-003	4.1400e-003	0.0000	7.0215	7.0215	6.7000e-004	0.0000	7.0355
<b>Total</b>	<b>7.4951</b>	<b>0.0552</b>	<b>0.0510</b>	<b>8.0000e-005</b>		<b>4.1400e-003</b>	<b>4.1400e-003</b>		<b>4.1400e-003</b>	<b>4.1400e-003</b>	<b>0.0000</b>	<b>7.0215</b>	<b>7.0215</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>7.0355</b>

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### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0136	0.0207	0.1965	4.9000e-004	0.0412	3.2000e-004	0.0415	0.0110	3.0000e-004	0.0113	0.0000	34.6979	34.6979	1.7800e-003	0.0000	34.7352
<b>Total</b>	<b>0.0136</b>	<b>0.0207</b>	<b>0.1965</b>	<b>4.9000e-004</b>	<b>0.0412</b>	<b>3.2000e-004</b>	<b>0.0415</b>	<b>0.0110</b>	<b>3.0000e-004</b>	<b>0.0113</b>	<b>0.0000</b>	<b>34.6979</b>	<b>34.6979</b>	<b>1.7800e-003</b>	<b>0.0000</b>	<b>34.7352</b>

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	3.7570	11.3969	42.4406	0.1072	7.0490	0.1749	7.2239	1.8944	0.1612	2.0556	0.0000	7,644.4314	7,644.4314	0.2606	0.0000	7,649.9036
Mitigated	3.7570	11.3969	42.4406	0.1072	7.0490	0.1749	7.2239	1.8944	0.1612	2.0556	0.0000	7,644.4314	7,644.4314	0.2606	0.0000	7,649.9036

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**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	788.97	714.00	714.00	1,929,706	1,929,706
City Park	20.52	247.99	247.99	249,816	249,816
Condo/Townhouse	677.35	708.40	708.40	1,725,237	1,725,237
Enclosed Parking with Elevator	0.00	0.00	0.00		
Government (Civic Center)	1,050.19	1,040.96	1,040.96	3,412,714	3,412,714
General Office Building	1,341.00	249.75	249.75	3,006,812	3,006,812
High Turnover (Sit Down Restaurant)	402.85	455.60	455.60	1,138,948	1,138,948
High Turnover (Sit Down Restaurant)	644.56	728.96	728.96	1,822,317	1,822,317
High Turnover (Sit Down Restaurant)	483.42	546.72	546.72	1,366,737	1,366,737
Hotel	904.50	1,030.50	1,030.50	2,645,208	2,645,208
Library	274.45	107.33	107.33	696,789	696,789
Parking Lot	0.00	0.00	0.00		
Single Family Housing	343.36	326.08	326.08	850,833	850,833
<b>Total</b>	<b>6,931.17</b>	<b>6,156.29</b>	<b>6,156.29</b>	<b>18,845,118</b>	<b>18,845,118</b>

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### 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 Low Rise	12.40	4.30	5.40	26.10	29.10	44.80	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Condo/Townhouse	12.40	4.30	5.40	26.10	29.10	44.80	100	0	0
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	100	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	100	0	0
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	100	0	0
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	100	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	100	0	0
Library	9.50	7.30	7.30	52.00	43.00	5.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	12.40	4.30	5.40	26.10	29.10	44.80	100	0	0

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



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**5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	0.0705	0.6241	0.4168	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	697.3705	697.3705	0.0134	0.0128	701.6146
NaturalGas Unmitigated	0.0867	0.7673	0.5068	4.7300e-003		0.0599	0.0599		0.0599	0.0599	0.0000	858.4115	858.4115	0.0165	0.0157	863.6356
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,813.5302	1,813.5302	0.0820	0.0170	1,820.5118
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,972.9981	1,972.9981	0.0892	0.0185	1,980.5935

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**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2.79326e+006	0.0151	0.1287	0.0548	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	149.0591	149.0591	2.8600e-003	2.7300e-003	149.9663
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
General Office Building	2.28263e+006	0.0123	0.1119	0.0940	6.7000e-004		8.5000e-003	8.5000e-003		8.5000e-003	8.5000e-003	0.0000	121.8096	121.8096	2.3300e-003	2.2300e-003	122.5509
Government (Civic Center)	228263	1.2300e-003	0.0112	9.4000e-003	7.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	12.1810	12.1810	2.3000e-004	2.2000e-004	12.2551
High Turnover (Sit Down Restaurant)	1.02006e+006	5.5000e-003	0.0500	0.0420	3.0000e-004		3.8000e-003	3.8000e-003		3.8000e-003	3.8000e-003	0.0000	54.4343	54.4343	1.0400e-003	1.0000e-003	54.7656
High Turnover (Sit Down Restaurant)	1.36008e+006	7.3300e-003	0.0667	0.0560	4.0000e-004		5.0700e-003	5.0700e-003		5.0700e-003	5.0700e-003	0.0000	72.5791	72.5791	1.3900e-003	1.3300e-003	73.0208
High Turnover (Sit Down Restaurant)	850050	4.5800e-003	0.0417	0.0350	2.5000e-004		3.1700e-003	3.1700e-003		3.1700e-003	3.1700e-003	0.0000	45.3619	45.3619	8.7000e-004	8.3000e-004	45.6380
Hotel	3.06923e+006	0.0166	0.1505	0.1264	9.0000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	163.7857	163.7857	3.1400e-003	3.0000e-003	164.7824
Library	64200	3.5000e-004	3.1500e-003	2.6400e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4260	3.4260	7.0000e-005	6.0000e-005	3.4468
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
Single Family Housing	1.63264e+006	8.8000e-003	0.0752	0.0320	4.8000e-004		6.0800e-003	6.0800e-003		6.0800e-003	6.0800e-003	0.0000	87.1239	87.1239	1.6700e-003	1.6000e-003	87.6541
Apartments Low Rise	2.78562e+006	0.0150	0.1284	0.0546	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.6511	148.6511	2.8500e-003	2.7300e-003	149.5558
<b>Total</b>		<b>0.0867</b>	<b>0.7673</b>	<b>0.5068</b>	<b>4.7300e-003</b>		<b>0.0599</b>	<b>0.0599</b>		<b>0.0599</b>	<b>0.0599</b>	<b>0.0000</b>	<b>858.4115</b>	<b>858.4115</b>	<b>0.0165</b>	<b>0.0157</b>	<b>863.6356</b>

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**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					
Condo/Townhouse	2.17979e+006	0.0118	0.1004	0.0427	6.4000e-004		8.1200e-003	8.1200e-003		8.1200e-003	8.1200e-003	0.0000	116.3218	116.3218	2.2300e-003	2.1300e-003	117.0297
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
General Office Building	1.74038e+006	9.3800e-003	0.0853	0.0717	5.1000e-004		6.4800e-003	6.4800e-003		6.4800e-003	6.4800e-003	0.0000	92.8730	92.8730	1.7800e-003	1.7000e-003	93.4383
Government (Civic Center)	174038	9.4000e-004	8.5300e-003	7.1700e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.2873	9.2873	1.8000e-004	1.7000e-004	9.3438
High Turnover (Sit Down Restaurant)	1.2761e+006	6.8800e-003	0.0626	0.0526	3.8000e-004		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003	0.0000	68.0976	68.0976	1.3100e-003	1.2500e-003	68.5120
High Turnover (Sit Down Restaurant)	797563	4.3000e-003	0.0391	0.0328	2.3000e-004		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	42.5610	42.5610	8.2000e-004	7.8000e-004	42.8200
High Turnover (Sit Down Restaurant)	957075	5.1600e-003	0.0469	0.0394	2.8000e-004		3.5700e-003	3.5700e-003		3.5700e-003	3.5700e-003	0.0000	51.0732	51.0732	9.8000e-004	9.4000e-004	51.3840
Hotel	2.4457e+006	0.0132	0.1199	0.1007	7.2000e-004		9.1100e-003	9.1100e-003		9.1100e-003	9.1100e-003	0.0000	130.5120	130.5120	2.5000e-003	2.3900e-003	131.3063
Library	52462.5	2.8000e-004	2.5700e-003	2.1600e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.7996	2.7996	5.0000e-005	5.0000e-005	2.8166
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
Single Family Housing	1.27402e+006	6.8700e-003	0.0587	0.0250	3.7000e-004		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003	0.0000	67.9867	67.9867	1.3000e-003	1.2500e-003	68.4005
Apartments Low Rise	2.1711e+006	0.0117	0.1000	0.0426	6.4000e-004		8.0900e-003	8.0900e-003		8.0900e-003	8.0900e-003	0.0000	115.8584	115.8584	2.2200e-003	2.1200e-003	116.5635
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0705</b>	<b>0.6241</b>	<b>0.4168</b>	<b>3.8400e-003</b>		<b>0.0487</b>	<b>0.0487</b>		<b>0.0487</b>	<b>0.0487</b>	<b>0.0000</b>	<b>697.3705</b>	<b>697.3705</b>	<b>0.0134</b>	<b>0.0128</b>	<b>701.6146</b>

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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	423207	123.1157	5.5700e-003	1.1500e-003	123.5897
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	490209	142.6075	6.4500e-003	1.3300e-003	143.1565
Enclosed Parking with Elevator	2.1568e+06	627.4379	0.0284	5.8700e-003	629.8533
General Office Building	1.5615e+06	454.2583	0.0205	4.2500e-003	456.0070
Government (Civic Center)	156150	45.4258	2.0500e-003	4.2000e-004	45.6007
High Turnover (Sit Down Restaurant)	151200	43.9858	1.9900e-003	4.1000e-004	44.1552
High Turnover (Sit Down Restaurant)	181440	52.7830	2.3900e-003	4.9000e-004	52.9862
High Turnover (Sit Down Restaurant)	241920	70.3773	3.1800e-003	6.6000e-004	70.6482
Hotel	734033	213.5387	9.6600e-003	2.0000e-003	214.3608
Library	20675	6.0146	2.7000e-004	6.0000e-005	6.0378
Parking Lot	442464	128.7179	5.8200e-003	1.2000e-003	129.2134
Single Family Housing	222527	64.7357	2.9300e-003	6.1000e-004	64.9849
<b>Total</b>		<b>1,972.9981</b>	<b>0.0892</b>	<b>0.0185</b>	<b>1,980.5935</b>

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**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	419782	122.1194	5.5200e-003	1.1400e-003	122.5895
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	486307	141.4722	6.4000e-003	1.3200e-003	142.0169
Enclosed Parking with Elevator	1.8432e+006	536.2080	0.0243	5.0200e-003	538.2723
General Office Building	1.42059e+006	413.2670	0.0187	3.8700e-003	414.8580
Government (Civic Center)	142059	41.3267	1.8700e-003	3.9000e-004	41.4858
High Turnover (Sit Down Restaurant)	147125	42.8004	1.9400e-003	4.0000e-004	42.9651
High Turnover (Sit Down Restaurant)	176550	51.3604	2.3200e-003	4.8000e-004	51.5581
High Turnover (Sit Down Restaurant)	235400	68.4806	3.1000e-003	6.4000e-004	68.7442
Hotel	680191	197.8753	8.9500e-003	1.8500e-003	198.6371
Library	19750	5.7455	2.6000e-004	5.0000e-005	5.7676
Parking Lot	442464	128.7179	5.8200e-003	1.2000e-003	129.2134
Single Family Housing	220538	64.1569	2.9000e-003	6.0000e-004	64.4039
<b>Total</b>		<b>1,813.5302</b>	<b>0.0820</b>	<b>0.0170</b>	<b>1,820.5118</b>

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### 6.0 Area Detail

#### 6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	7.5335	0.0231	2.0036	1.1000e-004		0.0119	0.0119		0.0119	0.0119	0.0000	16.7738	16.7738	3.5200e-003	2.5000e-004	16.9244
Mitigated	7.5335	0.0231	2.0036	1.1000e-004		0.0119	0.0119		0.0119	0.0119	0.0000	16.7738	16.7738	3.5200e-003	2.5000e-004	16.9244

#### 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	0.3201					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.1497					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.3600e-003	0.0000	7.0000e-005	0.0000		9.4000e-004	9.4000e-004		9.3000e-004	9.3000e-004	0.0000	13.5053	13.5053	2.6000e-004	2.5000e-004	13.5875
Landscaping	0.0624	0.0231	2.0035	1.1000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2685	3.2685	3.2600e-003	0.0000	3.3370
<b>Total</b>	<b>7.5335</b>	<b>0.0231</b>	<b>2.0036</b>	<b>1.1000e-004</b>		<b>0.0119</b>	<b>0.0119</b>		<b>0.0119</b>	<b>0.0119</b>	<b>0.0000</b>	<b>16.7738</b>	<b>16.7738</b>	<b>3.5200e-003</b>	<b>2.5000e-004</b>	<b>16.9244</b>

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**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	0.3201					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.1497					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.3600e-003	0.0000	7.0000e-005	0.0000		9.4000e-004	9.4000e-004		9.3000e-004	9.3000e-004	0.0000	13.5053	13.5053	2.6000e-004	2.5000e-004	13.5875
Landscaping	0.0624	0.0231	2.0035	1.1000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2685	3.2685	3.2600e-003	0.0000	3.3370
<b>Total</b>	<b>7.5335</b>	<b>0.0231</b>	<b>2.0036</b>	<b>1.1000e-004</b>		<b>0.0119</b>	<b>0.0119</b>		<b>0.0119</b>	<b>0.0119</b>	<b>0.0000</b>	<b>16.7738</b>	<b>16.7738</b>	<b>3.5200e-003</b>	<b>2.5000e-004</b>	<b>16.9244</b>

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**7.0 Water Detail**

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**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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	61.3244	0.0341	0.0205	68.4091
Mitigated	50.5981	0.0272	0.0164	56.2599



**San Leandro Shoreline - Proposed Operation (Alternative)**  
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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 Low Rise	6.09477 / 3.84236	15.6625	8.0300e-003	4.8200e-003	17.3241
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.56821 / 2.24952	9.1697	4.7000e-003	2.8200e-003	10.1424
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	3.05505 / 1.87245	7.7964	4.0200e-003	2.4100e-003	8.6291
Government (Civic Center)	1.45471 / 0.891598	3.7124	1.9200e-003	1.1500e-003	4.1089
High Turnover (Sit Down Restaurant)	3.68181 / 0.235009	7.3375	4.7600e-003	2.8900e-003	8.3331
Hotel	6.5691 / 0.7299	13.4079	8.5000e-003	5.1600e-003	15.1854
Library	0.014733 / 0.023044	0.0519	2.0000e-005	1.0000e-005	0.0559
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.62897 / 1.02696	4.1862	2.1500e-003	1.2900e-003	4.6303
<b>Total</b>		<b>61.3244</b>	<b>0.0341</b>	<b>0.0206</b>	<b>68.4091</b>

**San Leandro Shoreline - Proposed Operation (Alternative)**  
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**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	4.87582 / 3.60797	13.0738	6.4200e-003	3.8500e-003	14.4024
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2.85457 / 2.1123	7.6541	3.7600e-003	2.2500e-003	8.4319
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	2.44404 / 1.75823	6.5021	3.2100e-003	1.9300e-003	7.1679
Government (Civic Center)	1.16377 / 0.837211	3.0961	1.5300e-003	9.2000e-004	3.4131
High Turnover (Sit Down Restaurant)	2.94544 / 0.220673	5.9033	3.7900e-003	2.3100e-003	6.6982
Hotel	5.25528 / 0.685376	10.8296	6.7700e-003	4.1200e-003	12.2490
Library	0.0117864 /	0.0448	2.0000e-005	1.0000e-005	0.0480
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.30317 / 0.964313	3.4943	1.7200e-003	1.0300e-003	3.8494
<b>Total</b>		<b>50.5981</b>	<b>0.0272</b>	<b>0.0164</b>	<b>56.2599</b>

**San Leandro Shoreline - Proposed Operation (Alternative)**  
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**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	126.8511	7.4967	0.0000	284.2815
Unmitigated	126.8511	7.4967	0.0000	284.2815

**San Leandro Shoreline - Proposed Operation (Alternative)**  
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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	54.74	11.1117	0.6567	0.0000	24.9021
City Park	1.02	0.2071	0.0122	0.0000	0.4640
Condo/Townhouse	52.9	10.7382	0.6346	0.0000	24.0651
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	104.63	21.2389	1.2552	0.0000	47.5978
Government (Civic Center)	64.13	13.0178	0.7693	0.0000	29.1738
High Turnover (Sit Down Restaurant)	226.1	45.8963	2.7124	0.0000	102.8565
Hotel	82.13	16.6717	0.9853	0.0000	37.3622
Library	2.3	0.4669	0.0276	0.0000	1.0463
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	36.96	7.5026	0.4434	0.0000	16.8137
<b>Total</b>		<b>126.8511</b>	<b>7.4967</b>	<b>0.0000</b>	<b>284.2815</b>

**San Leandro Shoreline - Proposed Operation (Alternative)**  
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**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	54.74	11.1117	0.6567	0.0000	24.9021
City Park	1.02	0.2071	0.0122	0.0000	0.4640
Condo/Townhouse	52.9	10.7382	0.6346	0.0000	24.0651
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	104.63	21.2389	1.2552	0.0000	47.5978
Government (Civic Center)	64.13	13.0178	0.7693	0.0000	29.1738
High Turnover (Sit Down Restaurant)	226.1	45.8963	2.7124	0.0000	102.8565
Hotel	82.13	16.6717	0.9853	0.0000	37.3622
Library	2.3	0.4669	0.0276	0.0000	1.0463
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	36.96	7.5026	0.4434	0.0000	16.8137
<b>Total</b>		<b>126.8511</b>	<b>7.4967</b>	<b>0.0000</b>	<b>284.2815</b>

**9.0 Operational Offroad**

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



## San Leandro Shoreline - Proposed Operation (Alternative)

### Alameda County, Mitigation Report

#### OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	5	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	6	No Change	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	9	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

## San Leandro Shoreline - Proposed Operation (Alternative)

### Alameda County, Mitigation Report

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	8.21000E-003	5.51600E-002	5.09900E-002	8.00000E-005	4.14000E-003	4.14000E-003	0.00000E+000	7.02146E+000	7.02146E+000	6.70000E-004	0.00000E+000	7.03547E+000
Concrete/Industrial Saws	1.78100E-002	1.24860E-001	9.50800E-002	1.60000E-004	9.70000E-003	9.70000E-003	0.00000E+000	1.34414E+001	1.34414E+001	1.44000E-003	0.00000E+000	1.34717E+001
Cranes	2.17960E-001	2.58774E+000	9.18570E-001	1.83000E-003	1.16150E-001	1.06860E-001	0.00000E+000	1.70690E+002	1.70690E+002	5.19400E-002	0.00000E+000	1.71781E+002
Excavators	6.24800E-002	7.29730E-001	5.15880E-001	7.90000E-004	3.60200E-002	3.31400E-002	0.00000E+000	7.55987E+001	7.55987E+001	2.25700E-002	0.00000E+000	7.60726E+001
Forklifts	2.39670E-001	2.07338E+000	1.38975E+000	1.69000E-003	1.71690E-001	1.57950E-001	0.00000E+000	1.58435E+002	1.58435E+002	4.82100E-002	0.00000E+000	1.59447E+002
Generator Sets	2.23900E-001	1.72079E+000	1.40189E+000	2.43000E-003	1.18230E-001	1.18230E-001	0.00000E+000	2.09127E+002	2.09127E+002	1.80600E-002	0.00000E+000	2.09506E+002
Graders	3.98200E-002	4.07540E-001	1.86770E-001	2.30000E-004	2.29200E-002	2.10800E-002	0.00000E+000	2.23530E+001	2.23530E+001	6.67000E-003	0.00000E+000	2.24932E+001
Pavers	1.72500E-002	1.90830E-001	1.54770E-001	2.50000E-004	9.32000E-003	8.58000E-003	0.00000E+000	2.26991E+001	2.26991E+001	7.07000E-003	0.00000E+000	2.28475E+001
Paving Equipment	1.28800E-002	1.44000E-001	1.37370E-001	2.20000E-004	7.05000E-003	6.49000E-003	0.00000E+000	2.01473E+001	2.01473E+001	6.27000E-003	0.00000E+000	2.02790E+001
Rollers	1.41900E-002	1.37140E-001	1.06450E-001	1.40000E-004	9.44000E-003	8.68000E-003	0.00000E+000	1.31677E+001	1.31677E+001	4.10000E-003	0.00000E+000	1.32537E+001
Rubber Tired Dozers	1.68690E-001	1.90628E+000	1.45438E+000	1.18000E-003	8.89400E-002	8.18200E-002	0.00000E+000	1.12260E+002	1.12260E+002	3.35100E-002	0.00000E+000	1.12964E+002
Scrapers	1.08230E-001	1.39492E+000	8.68250E-001	1.12000E-003	5.63400E-002	5.18300E-002	0.00000E+000	1.06452E+002	1.06452E+002	3.17800E-002	0.00000E+000	1.07120E+002
Tractors/Loaders/Bulldozers	3.63030E-001	3.48464E+000	2.65486E+000	3.44000E-003	2.65240E-001	2.44020E-001	0.00000E+000	3.22639E+002	3.22639E+002	9.79400E-002	0.00000E+000	3.24696E+002
Welders	1.96630E-001	6.55430E-001	7.18340E-001	9.50000E-004	4.98800E-002	4.98800E-002	0.00000E+000	6.96417E+001	6.96417E+001	1.60000E-002	0.00000E+000	6.99777E+001



## San Leandro Shoreline - Proposed Operation (Alternative)

### Alameda County, Mitigation Report

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	8.21000E-003	5.51600E-002	5.09900E-002	8.00000E-005	4.14000E-003	4.14000E-003	0.00000E+000	7.02145E+000	7.02145E+000	6.70000E-004	0.00000E+000	7.03546E+000
Concrete/Industrial Saws	1.78100E-002	1.24860E-001	9.50800E-002	1.60000E-004	9.70000E-003	9.70000E-003	0.00000E+000	1.34414E+001	1.34414E+001	1.44000E-003	0.00000E+000	1.34717E+001
Cranes	2.17960E-001	2.58774E+000	9.18570E-001	1.83000E-003	1.16150E-001	1.06860E-001	0.00000E+000	1.70690E+002	1.70690E+002	5.19400E-002	0.00000E+000	1.71781E+002
Excavators	6.24800E-002	7.29730E-001	5.15880E-001	7.90000E-004	3.60200E-002	3.31400E-002	0.00000E+000	7.55986E+001	7.55986E+001	2.25700E-002	0.00000E+000	7.60725E+001
Forklifts	2.39660E-001	2.07338E+000	1.38975E+000	1.69000E-003	1.71690E-001	1.57950E-001	0.00000E+000	1.58434E+002	1.58434E+002	4.82100E-002	0.00000E+000	1.59447E+002
Generator Sets	2.23900E-001	1.72078E+000	1.40189E+000	2.43000E-003	1.18230E-001	1.18230E-001	0.00000E+000	2.09127E+002	2.09127E+002	1.80600E-002	0.00000E+000	2.09506E+002
Graders	3.98200E-002	4.07540E-001	1.86770E-001	2.30000E-004	2.29200E-002	2.10800E-002	0.00000E+000	2.23530E+001	2.23530E+001	6.67000E-003	0.00000E+000	2.24931E+001
Pavers	1.72500E-002	1.90830E-001	1.54770E-001	2.50000E-004	9.32000E-003	8.58000E-003	0.00000E+000	2.26991E+001	2.26991E+001	7.07000E-003	0.00000E+000	2.28475E+001
Paving Equipment	1.28800E-002	1.44000E-001	1.37370E-001	2.20000E-004	7.05000E-003	6.49000E-003	0.00000E+000	2.01473E+001	2.01473E+001	6.27000E-003	0.00000E+000	2.02790E+001
Rollers	1.41900E-002	1.37140E-001	1.06450E-001	1.40000E-004	9.44000E-003	8.68000E-003	0.00000E+000	1.31676E+001	1.31676E+001	4.10000E-003	0.00000E+000	1.32537E+001
Rubber Tired Dozers	1.68690E-001	1.90628E+000	1.45438E+000	1.18000E-003	8.89400E-002	8.18200E-002	0.00000E+000	1.12260E+002	1.12260E+002	3.35100E-002	0.00000E+000	1.12964E+002
Scrapers	1.08230E-001	1.39492E+000	8.68250E-001	1.12000E-003	5.63400E-002	5.18300E-002	0.00000E+000	1.06452E+002	1.06452E+002	3.17800E-002	0.00000E+000	1.07120E+002
Tractors/Loaders/Bac khoes	3.63030E-001	3.48463E+000	2.65486E+000	3.44000E-003	2.65240E-001	2.44020E-001	0.00000E+000	3.22639E+002	3.22639E+002	9.79400E-002	0.00000E+000	3.24696E+002
Welders	1.96630E-001	6.55430E-001	7.18340E-001	9.50000E-004	4.98800E-002	4.98800E-002	0.00000E+000	6.96416E+001	6.96416E+001	1.60000E-002	0.00000E+000	6.99776E+001

## San Leandro Shoreline - Proposed Operation (Alternative)

### Alameda County, Mitigation Report

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.42421E-006	1.42421E-006	0.00000E+000	0.00000E+000	1.42137E-006
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	7.43968E-007	7.43968E-007	0.00000E+000	0.00000E+000	1.48459E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17171E-006	1.17171E-006	0.00000E+000	0.00000E+000	1.22249E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19050E-006	1.19050E-006	0.00000E+000	0.00000E+000	1.18308E-006
Forklifts	4.17240E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19923E-006	1.19923E-006	0.00000E+000	0.00000E+000	1.19162E-006
Generator Sets	0.00000E+000	5.81128E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19545E-006	1.19545E-006	0.00000E+000	0.00000E+000	1.19328E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.34210E-006	1.34210E-006	0.00000E+000	0.00000E+000	1.33374E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.32164E-006	1.32164E-006	0.00000E+000	0.00000E+000	8.75370E-007
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.92688E-007	9.92688E-007	0.00000E+000	0.00000E+000	1.47936E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.51887E-006	1.51887E-006	0.00000E+000	0.00000E+000	1.50901E-006
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.15802E-006	1.15802E-006	0.00000E+000	0.00000E+000	1.23933E-006
Scrapers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22120E-006	1.22120E-006	0.00000E+000	0.00000E+000	1.12024E-006
Tractors/Loaders/Bac khoes	0.00000E+000	2.86974E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17779E-006	1.17779E-006	0.00000E+000	0.00000E+000	1.20112E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.14874E-006	1.14874E-006	0.00000E+000	0.00000E+000	1.14322E-006

## San Leandro Shoreline - Proposed Operation (Alternative)

### Alameda County, Mitigation Report

#### Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				





## San Leandro Shoreline - Proposed Operation (Alternative)

### Alameda County, Mitigation Report

#### Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.23	0.54		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			
No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			

## San Leandro Shoreline - Proposed Operation (Alternative)

### Alameda County, Mitigation Report

	Transit Improvements	Transit Improvements Subtotal	0.00		
		Land Use and Site Enhancement Subtotal	0.00		
No	Commute	Implement Trip Reduction Program			
No	Commute	Transit Subsidy			
No	Commute	Implement Employee Parking "Cash Out"			
No	Commute	Workplace Parking Charge			
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00
No	Commute	Provide Ride Sharing Program			
	Commute	Commute Subtotal	0.00		
No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.00		

## San Leandro Shoreline - Proposed Operation (Alternative)

### Alameda County, Mitigation Report

#### Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

#### Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	25.00	
No	Install High Efficiency Lighting	0.00	
No	On-site Renewable	0.00	0.00



## San Leandro Shoreline - Proposed Operation (Alternative)

### Alameda County, Mitigation Report

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

### Water Mitigation Measures

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

**San Leandro Shoreline - Proposed Operation (Alternative)**

**Alameda County, Mitigation Report**

**Solid Waste Mitigation**

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