

# Appendix D

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Greenhouse Gas Emissions Modeling Worksheets

## San Marin High School Stadium Lighting Project Marin County, Annual

### 1.0 Project Characteristics

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#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	0.00	Acre	0.00	0.00	0

#### 1.2 Other Project Characteristics

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	69
<b>Climate Zone</b>	5			<b>Operational Year</b>	2018
<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

Project Characteristics -

Land Use - Parking lot = most similar land use based on emissions estimates

Construction Phase - Construction Schedule included in Initial Study

Off-road Equipment - Construction eq info included in IS

Off-road Equipment - Construction eq info included in IS

Off-road Equipment - Construction eq info included in IS

Off-road Equipment - Construction eq info included in IS

Off-road Equipment - Construction eq info included in IS

Off-road Equipment - Construction eq info included in IS

Off-road Equipment - Construction eq info included in IS

Off-road Equipment - Construction eq info included in IS

Grading -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	4.00
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	20.00
tblConstructionPhase	NumDays	0.00	5.00
tblConstructionPhase	NumDays	0.00	20.00
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	PhaseStartDate	11/18/2017	11/20/2017
tblGrading	MaterialExported	0.00	50.00
tblOffRoadEquipment	HorsePower	205.00	97.00
tblOffRoadEquipment	HorsePower	226.00	174.00
tblOffRoadEquipment	HorsePower	400.00	97.00
tblOffRoadEquipment	LoadFactor	0.50	0.37

tblOffRoadEquipment	LoadFactor	0.29	0.41
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	LoadFactor	0.74	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

## 2.0 Emissions Summary

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## 2.2 Overall Operational

### Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</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>0.0000</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>0.0000</b>	<b>0.0000</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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 3.0 Construction Detail

### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Delivery	Site Preparation	9/4/2017	9/7/2017	5	4	
2	Foundation Excavation	Site Preparation	9/8/2017	9/11/2017	5	2	
3	Preparation and Trenching	Site Preparation	9/12/2017	10/9/2017	5	20	
4	Foundation Excavation 2	Site Preparation	10/10/2017	10/16/2017	5	5	
5	Tunnel Boring	Site Preparation	10/17/2017	11/13/2017	5	20	
6	Luminaire Mounting	Site Preparation	11/14/2017	11/15/2017	5	2	
7	Foundation1	Site Preparation	11/16/2017	11/17/2017	5	2	
8	Foundation2	Site Preparation	11/20/2017	11/21/2017	5	2	

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

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

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**



Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Delivery	Dumpers/Tenders	4	6.00	16	0.38
Delivery	Graders	0	8.00	174	0.41
Delivery	Off-Highway Trucks	4	6.00	97	0.37
Delivery	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Foundation Excavation	Bore/Drill Rigs	1	8.00	205	0.50
Foundation Excavation	Graders	0	8.00	174	0.41
Foundation Excavation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Preparation and Trenching	Graders	0	8.00	174	0.41
Preparation and Trenching	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Foundation Excavation 2	Bore/Drill Rigs	1	8.00	205	0.50
Foundation Excavation 2	Graders	0	8.00	174	0.41
Foundation Excavation 2	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Tunnel Boring	Bore/Drill Rigs	1	8.00	97	0.37
Tunnel Boring	Graders	0	8.00	174	0.41
Tunnel Boring	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Luminaire Mounting	Cranes	1	8.00	174	0.41
Luminaire Mounting	Graders	0	8.00	174	0.41
Luminaire Mounting	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Foundation1	Graders	0	8.00	174	0.41
Foundation1	Pumps	1	8.00	84	0.37
Foundation1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Foundation2	Graders	0	8.00	174	0.41
Foundation2	Pumps	1	8.00	84	0.74
Foundation2	Tractors/Loaders/Backhoes	0	8.00	97	0.37

**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
Delivery	8	20.00	0.00	6.00	12.40	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Foundation Excavation	1	3.00	0.00	0.00	12.40	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Preparation and Trenching	1	3.00	0.00	0.00	12.40	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Foundation Excavation 2	1	3.00	0.00	0.00	12.40	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunnel Boring	1	3.00	0.00	0.00	12.40	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Luminaire Mounting	1	3.00	0.00	0.00	12.40	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Foundation1	1	3.00	0.00	0.00	12.40	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Foundation2	1	3.00	0.00	0.00	12.40	6.60	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

### 3.2 Delivery - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4000e-004	2.8100e-003	1.5100e-003	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.3317	0.3317	4.0000e-005	0.0000	0.3325
<b>Total</b>	<b>4.4000e-004</b>	<b>2.8100e-003</b>	<b>1.5100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3317</b>	<b>0.3317</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.3325</b>

### 3.2 Delivery - 2017

#### 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	7.0000e-005	8.1000e-004	8.9000e-004	0.0000	5.0000e-005	1.0000e-005	6.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.1985	0.1985	0.0000	0.0000	0.1985
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.9000e-004	1.7600e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3203	0.3203	2.0000e-005	0.0000	0.3207
<b>Total</b>	<b>2.1000e-004</b>	<b>1.0000e-003</b>	<b>2.6500e-003</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>1.0000e-005</b>	<b>4.2000e-004</b>	<b>1.1000e-004</b>	<b>1.0000e-005</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.5188</b>	<b>0.5188</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.5191</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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4000e-004	2.8100e-003	1.5100e-003	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.3317	0.3317	4.0000e-005	0.0000	0.3325
<b>Total</b>	<b>4.4000e-004</b>	<b>2.8100e-003</b>	<b>1.5100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3317</b>	<b>0.3317</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.3325</b>

### 3.2 Delivery - 2017

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	8.1000e-004	8.9000e-004	0.0000	5.0000e-005	1.0000e-005	6.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.1985	0.1985	0.0000	0.0000	0.1985
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.9000e-004	1.7600e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3203	0.3203	2.0000e-005	0.0000	0.3207
<b>Total</b>	<b>2.1000e-004</b>	<b>1.0000e-003</b>	<b>2.6500e-003</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>1.0000e-005</b>	<b>4.2000e-004</b>	<b>1.1000e-004</b>	<b>1.0000e-005</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.5188</b>	<b>0.5188</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.5191</b>

### 3.3 Foundation Excavation - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-004	4.5600e-003	1.9900e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.8104	0.8104	2.5000e-004	0.0000	0.8156
<b>Total</b>	<b>3.1000e-004</b>	<b>4.5600e-003</b>	<b>1.9900e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.8104</b>	<b>0.8104</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>0.8156</b>

### 3.3 Foundation Excavation - 2017

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0240	0.0240	0.0000	0.0000	0.0241
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0240</b>	<b>0.0240</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0241</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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-004	4.5600e-003	1.9900e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.8104	0.8104	2.5000e-004	0.0000	0.8156
<b>Total</b>	<b>3.1000e-004</b>	<b>4.5600e-003</b>	<b>1.9900e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.8104</b>	<b>0.8104</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>0.8156</b>

### 3.3 Foundation Excavation - 2017

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0240	0.0240	0.0000	0.0000	0.0241
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0240</b>	<b>0.0240</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0241</b>

### 3.4 Preparation and Trenching - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3800e-003	0.0228	0.0180	2.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	2.1654	2.1654	6.6000e-004	0.0000	2.1794
<b>Total</b>	<b>2.3800e-003</b>	<b>0.0228</b>	<b>0.0180</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>1.7200e-003</b>	<b>1.7200e-003</b>	<b>0.0000</b>	<b>1.5800e-003</b>	<b>1.5800e-003</b>	<b>0.0000</b>	<b>2.1654</b>	<b>2.1654</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>2.1794</b>

### 3.4 Preparation and Trenching - 2017

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.4000e-004	1.3200e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2403	0.2403	1.0000e-005	0.0000	0.2405
<b>Total</b>	<b>1.0000e-004</b>	<b>1.4000e-004</b>	<b>1.3200e-003</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.2403</b>	<b>0.2403</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2405</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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3800e-003	0.0228	0.0180	2.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	2.1654	2.1654	6.6000e-004	0.0000	2.1794
<b>Total</b>	<b>2.3800e-003</b>	<b>0.0228</b>	<b>0.0180</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>1.7200e-003</b>	<b>1.7200e-003</b>	<b>0.0000</b>	<b>1.5800e-003</b>	<b>1.5800e-003</b>	<b>0.0000</b>	<b>2.1654</b>	<b>2.1654</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>2.1794</b>

### 3.4 Preparation and Trenching - 2017

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.4000e-004	1.3200e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2403	0.2403	1.0000e-005	0.0000	0.2405
<b>Total</b>	<b>1.0000e-004</b>	<b>1.4000e-004</b>	<b>1.3200e-003</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.2403</b>	<b>0.2403</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2405</b>

### 3.5 Foundation Excavation 2 - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8000e-004	0.0114	4.9800e-003	2.0000e-005		3.3000e-004	3.3000e-004		3.0000e-004	3.0000e-004	0.0000	2.0260	2.0260	6.2000e-004	0.0000	2.0390
<b>Total</b>	<b>7.8000e-004</b>	<b>0.0114</b>	<b>4.9800e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>3.0000e-004</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>2.0260</b>	<b>2.0260</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>2.0390</b>



### 3.5 Foundation Excavation 2 - 2017

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	3.3000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0601	0.0601	0.0000	0.0000	0.0601
<b>Total</b>	<b>3.0000e-005</b>	<b>4.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0601</b>	<b>0.0601</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0601</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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8000e-004	0.0114	4.9800e-003	2.0000e-005		3.3000e-004	3.3000e-004		3.0000e-004	3.0000e-004	0.0000	2.0260	2.0260	6.2000e-004	0.0000	2.0390
<b>Total</b>	<b>7.8000e-004</b>	<b>0.0114</b>	<b>4.9800e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>3.0000e-004</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>2.0260</b>	<b>2.0260</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>2.0390</b>

### 3.5 Foundation Excavation 2 - 2017

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	3.3000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0601	0.0601	0.0000	0.0000	0.0601
<b>Total</b>	<b>3.0000e-005</b>	<b>4.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0601</b>	<b>0.0601</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0601</b>

### 3.6 Tunnel Boring - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8900e-003	0.0233	0.0211	3.0000e-005		1.3400e-003	1.3400e-003		1.2300e-003	1.2300e-003	0.0000	2.7869	2.7869	8.5000e-004	0.0000	2.8049
<b>Total</b>	<b>1.8900e-003</b>	<b>0.0233</b>	<b>0.0211</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.3400e-003</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>1.2300e-003</b>	<b>1.2300e-003</b>	<b>0.0000</b>	<b>2.7869</b>	<b>2.7869</b>	<b>8.5000e-004</b>	<b>0.0000</b>	<b>2.8049</b>

### 3.6 Tunnel Boring - 2017

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.4000e-004	1.3200e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2403	0.2403	1.0000e-005	0.0000	0.2405
<b>Total</b>	<b>1.0000e-004</b>	<b>1.4000e-004</b>	<b>1.3200e-003</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.2403</b>	<b>0.2403</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2405</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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8900e-003	0.0233	0.0211	3.0000e-005		1.3400e-003	1.3400e-003		1.2300e-003	1.2300e-003	0.0000	2.7869	2.7869	8.5000e-004	0.0000	2.8048
<b>Total</b>	<b>1.8900e-003</b>	<b>0.0233</b>	<b>0.0211</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.3400e-003</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>1.2300e-003</b>	<b>1.2300e-003</b>	<b>0.0000</b>	<b>2.7869</b>	<b>2.7869</b>	<b>8.5000e-004</b>	<b>0.0000</b>	<b>2.8048</b>

### 3.6 Tunnel Boring - 2017

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.4000e-004	1.3200e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2403	0.2403	1.0000e-005	0.0000	0.2405
<b>Total</b>	<b>1.0000e-004</b>	<b>1.4000e-004</b>	<b>1.3200e-003</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.2403</b>	<b>0.2403</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2405</b>

### 3.7 Luminaire Mounting - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.8000e-004	9.2600e-003	4.7700e-003	1.0000e-005		5.0000e-004	5.0000e-004		4.6000e-004	4.6000e-004	0.0000	0.5720	0.5720	1.8000e-004	0.0000	0.5757
<b>Total</b>	<b>8.8000e-004</b>	<b>9.2600e-003</b>	<b>4.7700e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-004</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>4.6000e-004</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>0.5720</b>	<b>0.5720</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>0.5757</b>

### 3.7 Luminaire Mounting - 2017

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0240	0.0240	0.0000	0.0000	0.0241
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0240</b>	<b>0.0240</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0241</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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.8000e-004	9.2600e-003	4.7700e-003	1.0000e-005		5.0000e-004	5.0000e-004		4.6000e-004	4.6000e-004	0.0000	0.5720	0.5720	1.8000e-004	0.0000	0.5757
<b>Total</b>	<b>8.8000e-004</b>	<b>9.2600e-003</b>	<b>4.7700e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-004</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>4.6000e-004</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>0.5720</b>	<b>0.5720</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>0.5757</b>

### 3.7 Luminaire Mounting - 2017

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0240	0.0240	0.0000	0.0000	0.0241
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0240</b>	<b>0.0240</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0241</b>

### 3.8 Foundation1 - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	2.2700e-003	1.9200e-003	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.2826	0.2826	2.0000e-005	0.0000	0.2831
<b>Total</b>	<b>3.0000e-004</b>	<b>2.2700e-003</b>	<b>1.9200e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.2826</b>	<b>0.2826</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.2831</b>

**3.8 Foundation1 - 2017**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0240	0.0240	0.0000	0.0000	0.0241
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0240</b>	<b>0.0240</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0241</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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	2.2700e-003	1.9200e-003	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.2826	0.2826	2.0000e-005	0.0000	0.2831
<b>Total</b>	<b>3.0000e-004</b>	<b>2.2700e-003</b>	<b>1.9200e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.2826</b>	<b>0.2826</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.2831</b>

### 3.8 Foundation1 - 2017

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0240	0.0240	0.0000	0.0000	0.0241
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0240</b>	<b>0.0240</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0241</b>

### 3.9 Foundation2 - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0000e-004	4.5300e-003	3.8300e-003	1.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	0.5652	0.5652	5.0000e-005	0.0000	0.5662
<b>Total</b>	<b>6.0000e-004</b>	<b>4.5300e-003</b>	<b>3.8300e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.1000e-004</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>3.1000e-004</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>0.5652</b>	<b>0.5652</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.5662</b>



**3.9 Foundation2 - 2017**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0240	0.0240	0.0000	0.0000	0.0241
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0240</b>	<b>0.0240</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0241</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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0000e-004	4.5300e-003	3.8300e-003	1.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	0.5652	0.5652	5.0000e-005	0.0000	0.5662
<b>Total</b>	<b>6.0000e-004</b>	<b>4.5300e-003</b>	<b>3.8300e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.1000e-004</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>3.1000e-004</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>0.5652</b>	<b>0.5652</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.5662</b>



**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.545302	0.066455	0.182771	0.120923	0.034178	0.004114	0.013399	0.012410	0.001893	0.008250	0.007971	0.000727	0.001606

**5.0 Energy Detail**

~~4.4 Fleet Mix~~

Historical Energy Use: N

**5.1 Mitigation Measures Energy**



**5.2 Energy by Land Use - NaturalGas**

**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						
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	0.0000
<b>Total</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>0.0000</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>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



### 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					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Architectural Coating	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>0.0000</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>0.0000</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>

#### 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					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Architectural Coating	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>0.0000</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>0.0000</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>

### 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



## 7.2 Water by Land Use

### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## 9.0 Operational Offroad

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

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