

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality

429 E. Cotati Ave
Cotati, CA 94931

Tel: 707-794-0400
www.illingworthrodkin.com

Fax: 707-794-0405
illro@illingworthrodkin.com

MEMO

Date: August 9, 2019

To: **Amie Ashton**
David J. Powers & Associates, Inc.
1871 The Alameda, Suite 200
San José, CA 95126

From: James A. Reyff
Illingworth & Rodkin, Inc.
1 Willowbrook Court, Suite 120
Petaluma, CA 94954

RE: Hummingbird Energy Storage Project – San Jose, CA

SUBJECT: Air Quality Impacts Job#19-020

This memo addresses air pollutant and greenhouse gas emissions associated with construction and operation of the Hummingbird Energy Storage Project. The project proposes a 75 MW/300 MWh battery energy storage system within an existing R&D/manufacturing building located in a larger industrial/office park to be located in the southern part of the City of San Jose.

Project Description

Storage Building and Substation

The approximately 103,894-square foot, single-story building would house lithium ion batteries, racking/cabinets, and collection boxes. In addition to the batteries, inverters and medium voltage transformers would be installed inside the existing building. An approximately 15,000-square foot fenced area substation, located in the existing rear parking area behind the building, would be included. This substation is required to transform the electricity as required by PG&E and similar to other electrical substations

Gen Tie Line

As part of the proposed project, approximately 2.5 miles of 115 kV transmission line running from the substation to the Pacific Gas & Electric (PG&E) Metcalf Natural Gas Generating Station substation would be installed. The transmission line would be underground along the east side of Monterey Road until the existing PG&E transmission line corridor that traverses Coyote Creek

and connects to the Metcalf Power Plant substation. An overhead transmission line that crosses Coyote Creek, with two steel poles, would also be constructed.

Construction Activity

Construction of the Project, including tenant improvements within the existing building and construction of both the Project substation and gen-tie line, would occur in one contiguous phase starting in or around 2020. Total construction is anticipated to last 6 months with overlapping phases that include:

- **Overhead Transmission.** The transmission line will have two steel poles that are 90 to 100 feet high and include a total of 5 “wires”. The overhead construction will involve various foundation and line construction pieces of equipment; excavator with auger, excavator with bucket, rubber tired backhoe, loader, line trucks, reel truck, dump truck, pickup trucks, trailers, crane for setting the poles. An average of 7 pieces of construction equipment and no more than 12 at a time would be used. Duration from excavation to completion of conductor would be one month.
- **Underground Transmission Line.** This would include 2.5 miles of trenching and some micro-tunneling. The underground construction will have an excavator, Integrated Tool Carrier/Loader, rubber tire loader, dump trucks, broom, water truck, pickups, trailers, directional boring machine, jack and bore machine, motor grader, paving machine, rollers. An average of 12 pieces of construction equipment and no more than 18 at a time would be used. Total duration will be about 6-months.
- **Substation.** The substation construction duration is 5-months with similar type of equipment as the overhead construction.

A worksheet that includes construction assumptions was developed based on the types of construction and the information provided above. That information was input to the CalEEMod model to predict construction emissions. The construction assumptions and CalEEMod modeling output are provided in Attachment 1. Construction period emissions are summarized in Table 1.

TABLE 1 Construction Period Emissions

Scenario	ROG	NO_x	PM₁₀ Exhaust	PM_{2.5} Exhaust	CO₂e
Total construction emissions (tons) Transmission Line, Substation and Building Renovation	0.26 tons	2.49 tons	0.11 tons	0.11 tons	395 Mtons
Average daily emissions (pounds) ²	4 lbs.	38 lbs.	2 lbs.	2 lbs.	--
<i>BAAQMD Thresholds (pounds per day)</i>	54 lbs.	54 lbs.	82 lbs.	54 lbs.	--
Exceed Threshold?	No	No	No	No	No
Notes: ¹ ROG = reactive organic gases, NO _x = nitrogen oxides, PM ₁₀ = coarse particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, PM _{2.5} = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less.					
² Assumes 6 months or 132 workdays.					

The project construction activity is expected to have less-than-significant impacts in terms of construction impacts associated with exposure of sensitive receptors to toxic air contaminants (TACs) and fine particulate matter (PM_{2.5}). Much of the construction activity associated with substation construction and building rehabilitation would not occur near sensitive receptors. Construction activities near sensitive receptors include placement of the transmission line, which is expected to be temporary activities at any one location. The total construction period is expected to be 6 months with activities near any sensitive receptor (i.e., residences along Monterey Road) lasting for much shorter periods.

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM₁₀ and PM_{2.5}. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are implemented to reduce these emissions. To avoid significant construction-period impacts, the project should include the following measures:

During any construction period ground disturbance, the applicant shall ensure that the project contractor implement measures to control dust and exhaust. Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less than significant level. The contractor shall implement the following best management practices that are required of all projects:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Operation

The Project would utilize an existing R&D building to in a larger industrial/office park. The Project would be remotely monitored throughout the day and night. No permanent full-time or part-time employees would occupy the building. Direct emissions of air pollutants or GHG are not anticipated. There would be a small amount of emissions associated with weekly travel to the site and electricity usage. Emissions of air pollutants or their precursors and GHG would be minor and well below any significance thresholds.

Air Quality/Noise Construction Information Data Request

Project Name: Hummingbird Energy Storage					Complete ALL Portions in Yellow				
See Equipment Type TAB for type, horsepower and load factor									
Project Size		Dwelling Units			total project		acres disturbed		
		s.f. residential					Pile Driving? Y/N?		
		s.f. retail							
		s.f. office/commercial					Project include GENERATOR OR FIRE PUMP on-site? Y/N? ____		
		s.f. other, specify:					IF YES (if BOTH separate values) -->		
		s.f. parking garage			spaces		Kilowatts/Horsepower: _____		
		s.f. parking lot			spaces		Fuel Type: _____		
Construction Hours		am to			pm		Location in project (Plans Desired if Available):		

Quantity	Description	HP	Load Factor	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Annual Hours	Comments	
Transmission Line		Start Date:		1/1/2020		Total phase:		22		Overall Import/Export Volumes
		End Date:								
2	Off-Highway Trucks	402	0.38	0.38	8	22	8.0	352		
2	Excavators	158	0.38	0.38	8	22	8.0	352		
1	Rubber Tired Loaders	203	0.36	0.36	8	22	8.0	176		
2	Tractors/Loaders/Backhoes	97	0.37	0.37	8	22	8.0	352		
Micro Tunneling/Jack and Bore		Start Date:		1/1/2020		Total phase:		40		
		End Date:		2/28/2020						
1	Tractors/Loaders/Backhoes	97	0.37	0.37	8	28	5.6	224		
1	Bore/Drill Rigs	221	0.5	0.5	8	20	4.0	160		
1	Forklifts	89	0.2	0.2	8	38	7.6	304		
1	Generator Sets	84	0.74	0.74	8	17	3.4	136		
1	Welders	46	0.45	0.45	8	3	0.6	24		
1	Cranes	231	0.29	0.29	4	19	1.9	76		
1	Concrete/Industrial Saws	81	0.73	0.73	8	5	1.0	40		
2	Other Construction Equipment	172	0.42	0.42	8	15	3.0	240		
1	Pumps	84	0.74	0.74	8	32	6.4	256		
1	Cement and Mortar Mixers	9	0.56	0.56	8	10	2.0	80		
1	Rollers	80	0.38	0.38	8	2	0.4	16		
Other Equipment?										
Underground		Start Date:		1/1/2020		Total phase:		132		Assume 6 vendor trips/day, 6 haul trips/day (792 total)
		End Date:		6/30/2020						
1	Tractor/Loader/Backhoe	97	0.37	0.37	8	132	8.0	1056		
1	Rubber Tired Loaders	203	0.36	0.36	8	132	8.0	1056		
1	Excavators	158	0.38	0.38	8	132	8.0	1056		
1	Rollers	80	0.38	0.38	8	132	8.0	1056		
1	Sweepers/Scrubbers	64	0.46	0.46	2	132	2.0	264		
Other Equipment?										
Substation Construction		Start Date:				Total phase:		110		Cement Trucks? ? Total Round-Trips
		End Date:								
2	Excavators	158	0.38	0.38	8	55	4.0	880		
1	Rubber Tired Loaders	203	0.36	0.36	8	55	4.0	440		
1	Cranes	231	0.29	0.29	8	55	4.0	440		
1	Forklifts	89	0.2	0.2	8	110	8.0	880	Electric? (Y/N) Otherwise assumed diesel	
1	Generator Sets	84	0.74	0.74	8	110	8.0	880	Liquid Propane (LPG)? (Y/N) Otherwise Assumed diesel	
1	Tractors/Loaders/Backhoes	97	0.37	0.37	8	110	8.0	880	Or temporary line power? (Y/N)	
1	Welders	46	0.45	0.45	8	55	4.0	440		
Other Equipment?								0		

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs
 It is assumed that water trucks would be used during grading
 Add or subtract phases and equipment, as appropriate
 Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Hummingbird Battery Storage, Substation, Transmission - San Francisco Bay Area Air Basin, Annual

Hummingbird Battery Storage, Substation, Transmission
San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	5.00	1000sqft	1.00	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 rate

Land Use - Use LI for land use

Construction Phase - Based on schedule of 6 months total - Aug 1, 2019 email

Off-road Equipment - Based on equipment list generated by 8/1/2019 email

Off-road Equipment - Based on equipment list generated by 8/1/2019 email

Off-road Equipment - Based on equipment list generated by 8/1/2019 email

Grading - Minimal disturbance

Off-road Equipment - Based on equipment list generated by 8/1/2019 email

Trips and VMT - Added 6 vendor trips/day for each phase and increased worker trips to 30/day for substation

Vehicle Trips - no operation

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	110.00
tblConstructionPhase	NumDays	2.00	40.00
tblConstructionPhase	NumDays	1.00	22.00
tblConstructionPhase	PhaseEndDate	6/5/2020	6/2/2020
tblConstructionPhase	PhaseEndDate	1/17/2020	2/25/2020
tblConstructionPhase	PhaseEndDate	1/15/2020	1/30/2020
tblConstructionPhase	PhaseStartDate	1/18/2020	1/1/2020
tblConstructionPhase	PhaseStartDate	1/16/2020	1/1/2020
tblConstructionPhase	PhaseStartDate	1/15/2020	1/1/2020
tblGrading	AcresOfGrading	0.00	1.00
tblGrading	AcresOfGrading	0.00	1.00
tblLandUse	LotAcreage	0.11	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.20	0.20
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.42	0.42
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.46	0.46
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Excavators

tblOffRoadEquipment	OffRoadEquipmentType			Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType			Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType			Forklifts
tblOffRoadEquipment	OffRoadEquipmentType			Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType			Welders
tblOffRoadEquipment	OffRoadEquipmentType			Cranes
tblOffRoadEquipment	OffRoadEquipmentType			Cranes
tblOffRoadEquipment	OffRoadEquipmentType			Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType			Pumps
tblOffRoadEquipment	OffRoadEquipmentType			Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType			Rollers
tblOffRoadEquipment	OffRoadEquipmentType			Excavators
tblOffRoadEquipment	OffRoadEquipmentType			Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType			Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType			Excavators
tblOffRoadEquipment	OffRoadEquipmentType			Rollers
tblOffRoadEquipment	OffRoadEquipmentType			Sweepers/Scrubbers
tblOffRoadEquipment	OffRoadEquipmentType			Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount		1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount		1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount		1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount		1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount		1.00	0.00
tblOffRoadEquipment	UsageHours		6.00	4.00
tblOffRoadEquipment	UsageHours		6.00	8.00
tblOffRoadEquipment	UsageHours		6.00	8.00
tblOffRoadEquipment	UsageHours		7.00	5.60
tblOffRoadEquipment	UsageHours		8.00	4.00
tblProjectCharacteristics	CO2IntensityFactor		641.35	290
tblTripsAndVMT	HaulingTripNumber		0.00	792.00

tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	1.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripNumber	2.00	30.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	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					
2020	0.2558	2.4935	2.0617	4.4500e-003	0.0399	0.1143	0.1542	0.0106	0.1071	0.1177	0.0000	392.2921	392.2921	0.0905	0.0000	394.5543
Maximum	0.2558	2.4935	2.0617	4.4500e-003	0.0399	0.1143	0.1542	0.0106	0.1071	0.1177	0.0000	392.2921	392.2921	0.0905	0.0000	394.5543

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					

2020	0.2558	2.4935	2.0617	4.4500e-003	0.0399	0.1143	0.1542	0.0106	0.1071	0.1177	0.0000	392.2918	392.2918	0.0905	0.0000	394.5539
Maximum	0.2558	2.4935	2.0617	4.4500e-003	0.0399	0.1143	0.1542	0.0106	0.1071	0.1177	0.0000	392.2918	392.2918	0.0905	0.0000	394.5539

	ROG	NOx	CO	SO2	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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2020	3-31-2020	1.7948	1.7948
2	4-1-2020	6-30-2020	0.9305	0.9305
3	7-1-2020	9-30-2020	0.0109	0.0109
		Highest	1.7948	1.7948

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Transmission Line	Site Preparation	1/1/2020	1/30/2020	5	22	
2	Micro Tunneling	Grading	1/1/2020	2/25/2020	5	40	
3	Substation	Building Construction	1/1/2020	6/2/2020	5	110	
4	Underground	Trenching	1/1/2020	7/2/2020	5	132	

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; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Transmission Line	Off-Highway Trucks	2	8.00	402	0.38
Transmission Line	Excavators	2	8.00	158	0.38
Transmission Line	Rubber Tired Loaders	1	8.00	203	0.36
Substation	Generator Sets	1	8.00	84	0.74
Substation	Cranes	1	4.00	231	0.29
Substation	Forklifts	1	8.00	89	0.20
Transmission Line	Graders	0	8.00	187	0.41
Micro Tunneling	Bore/Drill Rigs	1	4.00	221	0.50
Micro Tunneling	Forklifts	1	7.60	89	0.20
Micro Tunneling	Generator Sets	1	3.40	84	0.74
Micro Tunneling	Rubber Tired Dozers	0	6.00	247	0.40
Substation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Micro Tunneling	Welders	1	0.60	46	0.45
Micro Tunneling	Tractors/Loaders/Backhoes	1	5.60	97	0.37
Micro Tunneling	Cranes	1	1.90	231	0.29
Transmission Line	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Micro Tunneling	Graders	0	6.00	187	0.41
Micro Tunneling	Cranes	1	1.00	231	0.29
Transmission Line	Rubber Tired Dozers	0	7.00	247	0.40
Substation	Welders	3	4.00	46	0.45
Micro Tunneling	Other Construction Equipment	2	3.00	172	0.42
Micro Tunneling	Pumps	1	6.40	84	0.74
Micro Tunneling	Cement and Mortar Mixers	1	2.00	9	0.56
Micro Tunneling	Rollers	1	1.00	80	0.38
Substation	Excavators	2	4.00	158	0.38
Substation	Rubber Tired Loaders	1	4.00	203	0.36
Underground	Rubber Tired Loaders	1	8.00	203	0.36
Underground	Excavators	1	8.00	158	0.38
Underground	Rollers	1	8.00	80	0.38
Underground	Sweepers/Scrubbers	1	2.00	64	0.46

Underground	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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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
Underground	5	13.00	6.00	792.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Substation	10	30.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Micro Tunneling	12	30.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Transmission Line	7	18.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Transmission Line - 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					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0288	0.2882	0.2247	5.4000e-004		0.0122	0.0122		0.0113	0.0113	0.0000	47.7496	47.7496	0.0154	0.0000	48.1357
Total	0.0288	0.2882	0.2247	5.4000e-004	5.3000e-004	0.0122	0.0128	6.0000e-005	0.0113	0.0113	0.0000	47.7496	47.7496	0.0154	0.0000	48.1357

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
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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
Vendor	2.6000e-004	7.6100e-003	1.9100e-003	2.0000e-005	4.3000e-004	4.0000e-005	4.7000e-004	1.3000e-004	4.0000e-005	1.6000e-004	0.0000	1.7280	1.7280	9.0000e-005	0.0000	1.7302
Worker	6.6000e-004	4.7000e-004	4.8600e-003	2.0000e-005	1.5600e-003	1.0000e-005	1.5800e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.3707	1.3707	3.0000e-005	0.0000	1.3716
Total	9.2000e-004	8.0800e-003	6.7700e-003	4.0000e-005	1.9900e-003	5.0000e-005	2.0500e-003	5.5000e-004	5.0000e-005	5.9000e-004	0.0000	3.0987	3.0987	1.2000e-004	0.0000	3.1018

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0288	0.2882	0.2247	5.4000e-004		0.0122	0.0122		0.0113	0.0113	0.0000	47.7495	47.7495	0.0154	0.0000	48.1356
Total	0.0288	0.2882	0.2247	5.4000e-004	5.3000e-004	0.0122	0.0128	6.0000e-005	0.0113	0.0113	0.0000	47.7495	47.7495	0.0154	0.0000	48.1356

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e-004	7.6100e-003	1.9100e-003	2.0000e-005	4.3000e-004	4.0000e-005	4.7000e-004	1.3000e-004	4.0000e-005	1.6000e-004	0.0000	1.7280	1.7280	9.0000e-005	0.0000	1.7302
Worker	6.6000e-004	4.7000e-004	4.8600e-003	2.0000e-005	1.5600e-003	1.0000e-005	1.5800e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.3707	1.3707	3.0000e-005	0.0000	1.3716

Total	9.2000e-004	8.0800e-003	6.7700e-003	4.0000e-005	1.9900e-003	5.0000e-005	2.0500e-003	5.5000e-004	5.0000e-005	5.9000e-004	0.0000	3.0987	3.0987	1.2000e-004	0.0000	3.1018
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3.3 Micro Tunneling - 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					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0306	0.3016	0.2523	4.8000e-004		0.0159	0.0159		0.0151	0.0151	0.0000	41.3174	41.3174	9.6000e-003	0.0000	41.5573
Total	0.0306	0.3016	0.2523	4.8000e-004	5.3000e-004	0.0159	0.0165	6.0000e-005	0.0151	0.0151	0.0000	41.3174	41.3174	9.6000e-003	0.0000	41.5573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6000e-004	0.0139	3.4800e-003	3.0000e-005	7.9000e-004	7.0000e-005	8.5000e-004	2.3000e-004	6.0000e-005	2.9000e-004	0.0000	3.1418	3.1418	1.6000e-004	0.0000	3.1459
Worker	1.9900e-003	1.4200e-003	0.0147	5.0000e-005	4.7400e-003	3.0000e-005	4.7700e-003	1.2600e-003	3.0000e-005	1.2900e-003	0.0000	4.1537	4.1537	1.0000e-004	0.0000	4.1562
Total	2.4500e-003	0.0153	0.0182	8.0000e-005	5.5300e-003	1.0000e-004	5.6200e-003	1.4900e-003	9.0000e-005	1.5800e-003	0.0000	7.2955	7.2955	2.6000e-004	0.0000	7.3021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0306	0.3016	0.2523	4.8000e-004		0.0159	0.0159		0.0151	0.0151	0.0000	41.3173	41.3173	9.6000e-003	0.0000	41.5572
Total	0.0306	0.3016	0.2523	4.8000e-004	5.3000e-004	0.0159	0.0165	6.0000e-005	0.0151	0.0151	0.0000	41.3173	41.3173	9.6000e-003	0.0000	41.5572

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6000e-004	0.0139	3.4800e-003	3.0000e-005	7.9000e-004	7.0000e-005	8.5000e-004	2.3000e-004	6.0000e-005	2.9000e-004	0.0000	3.1418	3.1418	1.6000e-004	0.0000	3.1459
Worker	1.9900e-003	1.4200e-003	0.0147	5.0000e-005	4.7400e-003	3.0000e-005	4.7700e-003	1.2600e-003	3.0000e-005	1.2900e-003	0.0000	4.1537	4.1537	1.0000e-004	0.0000	4.1562
Total	2.4500e-003	0.0153	0.0182	8.0000e-005	5.5300e-003	1.0000e-004	5.6200e-003	1.4900e-003	9.0000e-005	1.5800e-003	0.0000	7.2955	7.2955	2.6000e-004	0.0000	7.3021

3.4 Substation - 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	0.1058	0.9103	0.8228	1.4400e-003		0.0472	0.0472		0.0448	0.0448	0.0000	122.9987	122.9987	0.0288	0.0000	123.7175
Total	0.1058	0.9103	0.8228	1.4400e-003		0.0472	0.0472		0.0448	0.0448	0.0000	122.9987	122.9987	0.0288	0.0000	123.7175

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	1.2800e-003	0.0381	9.5700e-003	9.0000e-005	2.1600e-003	1.9000e-004	2.3500e-003	6.3000e-004	1.8000e-004	8.0000e-004	0.0000	8.6400	8.6400	4.5000e-004	0.0000	8.6512
Worker	5.4700e-003	3.9100e-003	0.0405	1.3000e-004	0.0130	9.0000e-005	0.0131	3.4700e-003	8.0000e-005	3.5500e-003	0.0000	11.4226	11.4226	2.8000e-004	0.0000	11.4295
Total	6.7500e-003	0.0420	0.0501	2.2000e-004	0.0152	2.8000e-004	0.0155	4.1000e-003	2.6000e-004	4.3500e-003	0.0000	20.0627	20.0627	7.3000e-004	0.0000	20.0807

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	0.1058	0.9103	0.8228	1.4400e-003		0.0472	0.0472		0.0448	0.0448	0.0000	122.9986	122.9986	0.0288	0.0000	123.7173
Total	0.1058	0.9103	0.8228	1.4400e-003		0.0472	0.0472		0.0448	0.0448	0.0000	122.9986	122.9986	0.0288	0.0000	123.7173

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	1.2800e-003	0.0381	9.5700e-003	9.0000e-005	2.1600e-003	1.9000e-004	2.3500e-003	6.3000e-004	1.8000e-004	8.0000e-004	0.0000	8.6400	8.6400	4.5000e-004	0.0000	8.6512
Worker	5.4700e-003	3.9100e-003	0.0405	1.3000e-004	0.0130	9.0000e-005	0.0131	3.4700e-003	8.0000e-005	3.5500e-003	0.0000	11.4226	11.4226	2.8000e-004	0.0000	11.4295
Total	6.7500e-003	0.0420	0.0501	2.2000e-004	0.0152	2.8000e-004	0.0155	4.1000e-003	2.6000e-004	4.3500e-003	0.0000	20.0627	20.0627	7.3000e-004	0.0000	20.0807

3.5 Underground - 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	0.0728	0.7646	0.6309	1.1700e-003		0.0379	0.0379		0.0349	0.0349	0.0000	103.1133	103.1133	0.0334	0.0000	103.9471
Total	0.0728	0.7646	0.6309	1.1700e-003		0.0379	0.0379		0.0349	0.0349	0.0000	103.1133	103.1133	0.0334	0.0000	103.9471

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
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Category	tons/yr										MT/yr					
Hauling	3.3100e-003	0.1158	0.0233	3.1000e-004	6.6900e-003	3.7000e-004	7.0600e-003	1.8400e-003	3.6000e-004	2.2000e-003	0.0000	30.3484	30.3484	1.5600e-003	0.0000	30.3874
Vendor	1.5300e-003	0.0457	0.0115	1.1000e-004	2.6000e-003	2.2000e-004	2.8200e-003	7.5000e-004	2.1000e-004	9.6000e-004	0.0000	10.3681	10.3681	5.3000e-004	0.0000	10.3814
Worker	2.8400e-003	2.0300e-003	0.0211	7.0000e-005	6.7800e-003	5.0000e-005	6.8300e-003	1.8000e-003	4.0000e-005	1.8500e-003	0.0000	5.9398	5.9398	1.4000e-004	0.0000	5.9434
Total	7.6800e-003	0.1635	0.0558	4.9000e-004	0.0161	6.4000e-004	0.0167	4.3900e-003	6.1000e-004	5.0100e-003	0.0000	46.6562	46.6562	2.2300e-003	0.0000	46.7122

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	0.0728	0.7645	0.6309	1.1700e-003		0.0379	0.0379		0.0349	0.0349	0.0000	103.1132	103.1132	0.0334	0.0000	103.9469
Total	0.0728	0.7645	0.6309	1.1700e-003		0.0379	0.0379		0.0349	0.0349	0.0000	103.1132	103.1132	0.0334	0.0000	103.9469

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	3.3100e-003	0.1158	0.0233	3.1000e-004	6.6900e-003	3.7000e-004	7.0600e-003	1.8400e-003	3.6000e-004	2.2000e-003	0.0000	30.3484	30.3484	1.5600e-003	0.0000	30.3874
Vendor	1.5300e-003	0.0457	0.0115	1.1000e-004	2.6000e-003	2.2000e-004	2.8200e-003	7.5000e-004	2.1000e-004	9.6000e-004	0.0000	10.3681	10.3681	5.3000e-004	0.0000	10.3814
Worker	2.8400e-003	2.0300e-003	0.0211	7.0000e-005	6.7800e-003	5.0000e-005	6.8300e-003	1.8000e-003	4.0000e-005	1.8500e-003	0.0000	5.9398	5.9398	1.4000e-004	0.0000	5.9434

Total	7.6800e-003	0.1635	0.0558	4.9000e-004	0.0161	6.4000e-004	0.0167	4.3900e-003	6.1000e-004	5.0100e-003	0.0000	46.6562	46.6562	2.2300e-003	0.0000	46.7122
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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	103.00	1000sqft	2.36	103,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Updated Trip rate

Water And Wastewater - Updated water use

Solid Waste - Reduced for use

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Table Name	Column Name	Default Value	New Value
tblSolidWaste	SolidWasteGenerationRate	96.82	5.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	1.0000e-004
tblWater	IndoorWaterUseRate	23,818,750.00	25,000.00

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-6-2020	4-5-2020	0.7287	0.7287
2	4-6-2020	7-5-2020	0.7131	0.7131
3	7-6-2020	10-5-2020	0.7210	0.7210
4	10-6-2020	1-5-2021	0.8327	0.8327
5	1-6-2021	4-5-2021	0.3510	0.3510
		Highest	0.8327	0.8327

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4561	1.0000e-005	9.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8400e-003	1.8400e-003	0.0000	0.0000	1.9600e-003
Energy	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	124.8453	124.8453	5.1500e-003	1.3400e-003	125.3731
Mobile	0.0000	1.0000e-005	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.2900e-003	8.2900e-003	0.0000	0.0000	8.3000e-003
Waste						0.0000	0.0000		0.0000	0.0000	1.0150	0.0000	1.0150	0.0600	0.0000	2.5145
Water						0.0000	0.0000		0.0000	0.0000	7.9300e-003	0.0394	0.0473	8.2000e-004	2.0000e-005	0.0735
Total	0.4580	0.0175	0.0157	1.1000e-004	1.0000e-005	1.3300e-003	1.3400e-003	0.0000	1.3300e-003	1.3300e-003	1.0229	124.8947	125.9176	0.0660	1.3600e-003	127.9714

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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	0.4561	1.0000e-005	9.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8400e-003	1.8400e-003	0.0000	0.0000	1.9600e-003
Energy	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	124.8453	124.8453	5.1500e-003	1.3400e-003	125.3731
Mobile	0.0000	1.0000e-005	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.2900e-003	8.2900e-003	0.0000	0.0000	8.3000e-003
Waste						0.0000	0.0000		0.0000	0.0000	1.0150	0.0000	1.0150	0.0600	0.0000	2.5145
Water						0.0000	0.0000		0.0000	0.0000	7.9300e-003	0.0394	0.0473	8.2000e-004	2.0000e-005	0.0735
Total	0.4580	0.0175	0.0157	1.1000e-004	1.0000e-005	1.3300e-003	1.3400e-003	0.0000	1.3300e-003	1.3300e-003	1.0229	124.8947	125.9176	0.0660	1.3600e-003	127.9714

	ROG	NOx	CO	SO2	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

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/6/2020	1/31/2020	5	20	
2	Site Preparation	Site Preparation	2/1/2020	2/5/2020	5	3	
3	Grading	Grading	2/6/2020	2/13/2020	5	6	
4	Building Construction	Building Construction	2/14/2020	12/17/2020	5	220	
5	Paving	Paving	12/18/2020	12/31/2020	5	10	
6	Architectural Coating	Architectural Coating	1/1/2021	1/14/2021	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 154,500; Non-Residential Outdoor: 51,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	43.00	17.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0677	21.0677	5.4200e-003	0.0000	21.2031
Total	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0677	21.0677	5.4200e-003	0.0000	21.2031

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3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	3.1000e-004	3.2500e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8842	0.8842	2.0000e-005	0.0000	0.8847
Total	4.3000e-004	3.1000e-004	3.2500e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8842	0.8842	2.0000e-005	0.0000	0.8847

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	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0676	21.0676	5.4200e-003	0.0000	21.2030
Total	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0676	21.0676	5.4200e-003	0.0000	21.2030

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3.2 Demolition - 2020

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	4.3000e-004	3.1000e-004	3.2500e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8842	0.8842	2.0000e-005	0.0000	0.8847
Total	4.3000e-004	3.1000e-004	3.2500e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8842	0.8842	2.0000e-005	0.0000	0.8847

3.3 Site Preparation - 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					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0299	0.0169	4.0000e-005		1.1700e-003	1.1700e-003		1.0700e-003	1.0700e-003	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	2.4800e-003	0.0299	0.0169	4.0000e-005	2.3900e-003	1.1700e-003	3.5600e-003	2.6000e-004	1.0700e-003	1.3300e-003	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551

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3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.0000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0816	0.0816	0.0000	0.0000	0.0817
Total	4.0000e-005	3.0000e-005	3.0000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0816	0.0816	0.0000	0.0000	0.0817

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0299	0.0169	4.0000e-005		1.1700e-003	1.1700e-003		1.0700e-003	1.0700e-003	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	2.4800e-003	0.0299	0.0169	4.0000e-005	2.3900e-003	1.1700e-003	3.5600e-003	2.6000e-004	1.0700e-003	1.3300e-003	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551

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3.3 Site Preparation - 2020

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	4.0000e-005	3.0000e-005	3.0000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0816	0.0816	0.0000	0.0000	0.0817
Total	4.0000e-005	3.0000e-005	3.0000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0816	0.0816	0.0000	0.0000	0.0817

3.4 Grading - 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					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7700e-003	0.0640	0.0298	6.0000e-005		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	5.4333	5.4333	1.7600e-003	0.0000	5.4773
Total	5.7700e-003	0.0640	0.0298	6.0000e-005	0.0197	2.9700e-003	0.0226	0.0101	2.7300e-003	0.0128	0.0000	5.4333	5.4333	1.7600e-003	0.0000	5.4773

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3.4 Grading - 2020

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	7.0000e-005	7.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2040	0.2040	1.0000e-005	0.0000	0.2042
Total	1.0000e-004	7.0000e-005	7.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2040	0.2040	1.0000e-005	0.0000	0.2042

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					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7700e-003	0.0640	0.0298	6.0000e-005		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	5.4333	5.4333	1.7600e-003	0.0000	5.4773
Total	5.7700e-003	0.0640	0.0298	6.0000e-005	0.0197	2.9700e-003	0.0226	0.0101	2.7300e-003	0.0128	0.0000	5.4333	5.4333	1.7600e-003	0.0000	5.4773

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3.4 Grading - 2020

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	7.0000e-005	7.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2040	0.2040	1.0000e-005	0.0000	0.2042
Total	1.0000e-004	7.0000e-005	7.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2040	0.2040	1.0000e-005	0.0000	0.2042

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	0.2517	1.9177	1.6387	2.7500e-003		0.1043	0.1043		0.1000	0.1000	0.0000	228.4088	228.4088	0.0464	0.0000	229.5678
Total	0.2517	1.9177	1.6387	2.7500e-003		0.1043	0.1043		0.1000	0.1000	0.0000	228.4088	228.4088	0.0464	0.0000	229.5678

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3.5 Building Construction - 2020

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	7.4100e-003	0.2129	0.0567	5.1000e-004	0.0123	1.0500e-003	0.0134	3.5600e-003	1.0100e-003	4.5700e-003	0.0000	48.8898	48.8898	2.2400e-003	0.0000	48.9459
Worker	0.0157	0.0113	0.1184	3.6000e-004	0.0375	2.4000e-004	0.0378	9.9800e-003	2.2000e-004	0.0102	0.0000	32.1711	32.1711	7.9000e-004	0.0000	32.1908
Total	0.0231	0.2242	0.1751	8.7000e-004	0.0498	1.2900e-003	0.0511	0.0135	1.2300e-003	0.0148	0.0000	81.0609	81.0609	3.0300e-003	0.0000	81.1367

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	0.2517	1.9177	1.6387	2.7500e-003		0.1043	0.1043		0.1000	0.1000	0.0000	228.4086	228.4086	0.0464	0.0000	229.5675
Total	0.2517	1.9177	1.6387	2.7500e-003		0.1043	0.1043		0.1000	0.1000	0.0000	228.4086	228.4086	0.0464	0.0000	229.5675

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3.5 Building Construction - 2020

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	7.4100e-003	0.2129	0.0567	5.1000e-004	0.0123	1.0500e-003	0.0134	3.5600e-003	1.0100e-003	4.5700e-003	0.0000	48.8898	48.8898	2.2400e-003	0.0000	48.9459
Worker	0.0157	0.0113	0.1184	3.6000e-004	0.0375	2.4000e-004	0.0378	9.9800e-003	2.2000e-004	0.0102	0.0000	32.1711	32.1711	7.9000e-004	0.0000	32.1908
Total	0.0231	0.2242	0.1751	8.7000e-004	0.0498	1.2900e-003	0.0511	0.0135	1.2300e-003	0.0148	0.0000	81.0609	81.0609	3.0300e-003	0.0000	81.1367

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	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143

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3.6 Paving - 2020

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	1.8000e-004	1.8800e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5101	0.5101	1.0000e-005	0.0000	0.5104
Total	2.5000e-004	1.8000e-004	1.8800e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5101	0.5101	1.0000e-005	0.0000	0.5104

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	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143

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3.6 Paving - 2020

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	1.8000e-004	1.8800e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5101	0.5101	1.0000e-005	0.0000	0.5104
Total	2.5000e-004	1.8000e-004	1.8800e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5101	0.5101	1.0000e-005	0.0000	0.5104

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5371					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	0.5382	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788

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3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.0300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.2954	0.2954	1.0000e-005	0.0000	0.2956
Total	1.4000e-004	1.0000e-004	1.0300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.2954	0.2954	1.0000e-005	0.0000	0.2956

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	0.5371					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	0.5382	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788

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3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.0300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.2954	0.2954	1.0000e-005	0.0000	0.2956
Total	1.4000e-004	1.0000e-004	1.0300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.2954	0.2954	1.0000e-005	0.0000	0.2956

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	1.0000e-005	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.2900e-003	8.2900e-003	0.0000	0.0000	8.3000e-003
Unmitigated	0.0000	1.0000e-005	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.2900e-003	8.2900e-003	0.0000	0.0000	8.3000e-003

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	0.01	0.00	0.00	21	21
Total	0.01	0.00	0.00	21	21

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
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.604810	0.038204	0.185149	0.108513	0.015498	0.004981	0.012268	0.020156	0.002083	0.001571	0.005363	0.000620	0.000785

5.0 Energy Detail

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Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	105.7725	105.7725	4.7800e-003	9.9000e-004	106.1870
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	105.7725	105.7725	4.7800e-003	9.9000e-004	106.1870
NaturalGas Mitigated	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0728	19.0728	3.7000e-004	3.5000e-004	19.1861
NaturalGas Unmitigated	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0728	19.0728	3.7000e-004	3.5000e-004	19.1861

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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					
Unrefrigerated Warehouse-No Rail	357410	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0728	19.0728	3.7000e-004	3.5000e-004	19.1861
Total		1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0728	19.0728	3.7000e-004	3.5000e-004	19.1861

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					
Unrefrigerated Warehouse-No Rail	357410	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0728	19.0728	3.7000e-004	3.5000e-004	19.1861
Total		1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0728	19.0728	3.7000e-004	3.5000e-004	19.1861

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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			
Unrefrigerated Warehouse-No Rail	363590	105.7725	4.7800e-003	9.9000e-004	106.1870
Total		105.7725	4.7800e-003	9.9000e-004	106.1870

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	363590	105.7725	4.7800e-003	9.9000e-004	106.1870
Total		105.7725	4.7800e-003	9.9000e-004	106.1870

6.0 Area Detail

6.1 Mitigation Measures Area

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4561	1.0000e-005	9.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8400e-003	1.8400e-003	0.0000	0.0000	1.9600e-003
Unmitigated	0.4561	1.0000e-005	9.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8400e-003	1.8400e-003	0.0000	0.0000	1.9600e-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	0.0537					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4023					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8400e-003	1.8400e-003	0.0000	0.0000	1.9600e-003
Total	0.4561	1.0000e-005	9.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8400e-003	1.8400e-003	0.0000	0.0000	1.9600e-003

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6.2 Area by SubCategory

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	0.0537					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4023					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8400e-003	1.8400e-003	0.0000	0.0000	1.9600e-003
Total	0.4561	1.0000e-005	9.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8400e-003	1.8400e-003	0.0000	0.0000	1.9600e-003

7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0473	8.2000e-004	2.0000e-005	0.0735
Unmitigated	0.0473	8.2000e-004	2.0000e-005	0.0735

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	0.025 / 0	0.0473	8.2000e-004	2.0000e-005	0.0735
Total		0.0473	8.2000e-004	2.0000e-005	0.0735

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	0.025 / 0	0.0473	8.2000e-004	2.0000e-005	0.0735
Total		0.0473	8.2000e-004	2.0000e-005	0.0735

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.0150	0.0600	0.0000	2.5145
Unmitigated	1.0150	0.0600	0.0000	2.5145

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	5	1.0150	0.0600	0.0000	2.5145
Total		1.0150	0.0600	0.0000	2.5145

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	5	1.0150	0.0600	0.0000	2.5145
Total		1.0150	0.0600	0.0000	2.5145

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation
